Part 1: PNHP’s proposal for single-payer national health insurance

Frequently Asked Questions

Part 2: Our health care system is broken

Talking point 1: Our patients are dying for lack of access to care.

Nearly 45,000 Americans die annually for lack of health insurance.


Talking point 2: Our patients are going broke.

Medical bills contribute to more than 60 percent of all bankruptcies. Three-fourths of those bankrupted had health insurance at the time they got sick.


Talking point 3: Money and resources are wasted in our current system.

Administrative costs consume 31 percent of health spending, most of it unnecessary. The U.S. could save enough on administrative costs (almost $400 billion yearly) by switching to a single-payer system.


The U.S. spends more per capita on health care than other nations.

OECD Health Data 2011 (excerpted charts).

Part 3: Single-payer national health insurance is the solution

Talking point 4: Single payer covers everyone and saves money.

Single payer can cover everyone, save over $400 billion per year, and shift our health care financing to a progressive model.
Taxes already pay for over 60 percent of U.S. health spending, when tax subsidies to private insurance and the benefit costs of public employees are factored in.


Talking point 5: Single payer ensures access to high-quality health care.


Talking point 6: Every other industrialized, capitalist country has some form of non-profit national health care.

"International Health Systems for Single Payer Advocates." Physicians for a National Health Program.


Talking point 7: Physicians and the public support single payer.

A majority of physicians (59 percent), and an even higher proportion of Americans (two-thirds), support national health insurance or "Medicare for all."


"PNHP Backgrounder: Recent Public Polls on Single Payer." Physicians for a National Health Program.


"Endorsers of Single-Payer National Health Insurance." Physicians for a National Health Program.

Talking point 8: Single payer removes corporate barriers to practicing medicine.


Talking point 9: Medical malpractice systems can be harnessed to ensure better quality and lower costs through single payer.


Canadian Health Services Research Foundation. (2006). “Mythbusters: Medical malpractice suits plague Canada.”
Part 4: Myths and facts

**Myth 1: Alternative proposals for reform, such as the Affordable Care Act and incremental state-level approaches, can achieve affordable, universal coverage.**

Fact: The Affordable Care Act ("Obamacare") will leave 30 million uninsured in 2023 and tens of millions more underinsured; will retain our fragmented financing system, making it impossible to control costs; and will not eliminate medical bankruptcies.

Fact: Single payer is the only reform that will simultaneously grant universal coverage while controlling costs.


Fact: State health reforms over the past two decades have failed to reduce the number of uninsured.


**Myth 2: Health care in countries with nationalized systems have poor quality care and long wait times.**

Fact: Other countries have high-quality care with lower levels of amenable mortality.


Case Study: Canada


Case Study: Taiwan
Myth 3: Lower drug prices in other countries hurt innovation.

Fact: Drug companies spend more on marketing (31 percent) and profits (20 percent) than on R&D (13 percent). Lower drug prices would not jeopardize drug innovation, much of which is, in fact, publicly-funded.


Myth 4: Competition is needed to control costs and ensure high-quality care.

Fact: Competition among investor-owned, for-profit entities – including hospitals, HMOs, hospice care, and nursing homes – increases costs and degrades quality.


Myth 5: ACOs and EMRs will reduce health care costs.

Fact: ACOs (accountable care organizations), which resemble HMOs, have not been shown to save money.


Fact: EMRs (electronic medical records) have not been shown to save money.

Myth 6: Pay-for-performance (P4P) will improve health care quality.

Fact: P4P schemes rely on flawed assumptions about medicine, measurement, and motivation. Studies do not demonstrate the clinical effectiveness of P4P.


Myth 7: Physicians are poorly paid in nationalized systems.

Fact: It is a myth that doctors practicing under national health insurance are compensated significantly worse than their American colleagues.

“How does national health insurance affect physicians' income?” PNHP document.


Myth 8: Immigrants are using our health care resources, driving up costs.

Fact: Immigrants and emergency department visits by the uninsured are not the cause of high and rising health care costs. Immigrants actually contribute more to the Medicare Part A Trust Fund than they take out.


Myth 9: People will overuse health care resources if there are no co-pays or deductibles.

Fact: Co-pays and deductibles are not necessary to control costs and reduce unnecessary care.

Section I

PNHP’s Proposal for Single-Payer National Health Insurance
Proposal of the Physicians’ Working Group for Single-Payer National Health Insurance

The Physicians’ Working Group for Single-Payer National Health Insurance

HE US HEALTH CARE SYSTEM IS rich in resources. Hospitals and sophisticated equipment abound, with even many rural areas boasting well-equipped facilities. Most physicians and nurses are superbly trained, and dedication to patients is the norm. Our research output is prodigious, and we fund health care far more generously than any other nation.

Yet despite medical abundance, health care is too often meager because of the irrationality of the current health care system. More than 41 million Americans have no health insurance, including 33% of all Hispanics, 19% of African Americans and Asians, and 10% of non-Hispanic whites.1 Many more, perhaps most of us, are underinsured. The world’s richest health care system is unable to ensure basics like prenatal care and immunizations, and we trail most of the developed world on such indicators as infant mortality and life expectancy. Even the well-insured may find care compromised when health maintenance organizations (HMOs) deny expensive medications and therapies. Fear of financial ruin often amplifies the misfortune of illness for patients.

For physicians, the gratifications of healing give way to anger and alienation in a system that treats sick people as commodities and physicians as investors’ tools. In private practice we waste countless hours on billing and bureaucracy. For the uninsured, we avoid procedures, consultations, and costly medications. In HMOs we walk a tightrope between thrift and penuriousness, under the surveillance of bureaucrats who prod us to abdicate allegiance.

The United States spends more than twice as much on health care as the average of other developed nations, all of which boast universal coverage. Yet more than 41 million Americans have no health insurance. Many more are underinsured. Confronted by the rising costs and capabilities of modern medicine, other nations have chosen national health insurance (NHI). The United States alone treats health care as a commodity distributed according to the ability to pay, rather than as a social service to be distributed according to medical need. In this market-driven system, insurers and providers compete not so much by increasing quality or lowering costs, but by avoiding unprofitable patients and shifting costs back to patients or to other payers. This creates the paradox of a health care system based on avoiding the sick. It generates huge administrative costs that, along with profits, divert resources from clinical care to the demands of business. In addition, burgeoning satellite businesses, such as consulting firms and marketing companies, consume an increasing fraction of the health care dollar. We endorse a fundamental change in US health care—the creation of an NHI program. Such a program, which in essence would be an expanded and improved version of traditional Medicare, would cover every American for all necessary medical care. An NHI program would save at least $200 billion annually (more than enough to cover all of the uninsured) by eliminating the high overhead and profits of the private, investor-owned insurance industry and reducing spending for marketing and other satellite services. Physicians and hospitals would be freed from the concomitant burdens and expenses of paperwork created by having to deal with multiple insurers with different rules, often designed to avoid payment. National health insurance would make it possible to set and enforce overall spending limits for the health care system, slowing cost growth over the long run. An NHI program is the only affordable option for universal, comprehensive coverage.

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This article has been endorsed by 7784 additional physicians and medical students (names available at http://www.pnhp.org/signers/).

For editorial comment see p 818.
to patients and to avoid the sickest who may be unprofitable. In academia, we watch as the scholarly traditions of openness and collaboration give way to secrecy and assertions of private ownership of vital ideas—the search for knowledge displaced by a search for intellectual property.

For 9 decades, opponents have blocked proposals for national health insurance (NHI), touting private sector solutions. Reforms over the past quarter century have emphasized market mechanisms, endorsed the central role of private insurers, and nourished investor ownership of care. But promises of greater efficiency, cost control, and responsiveness to consumers are unfulfilled; meanwhile, the ranks of the uninsured have swollen. Health maintenance organizations, launched as health care’s bright hope, have raised Medicare costs by billions and fallen substantially in public esteem. Investor-owned hospital chains, born of the promise of efficiency, have been wracked by scandal, their costs high and their quality low. Drug firms, which have secured the highest profits and lowest taxes of any industry, price drugs out of reach of many who need them most.

Many in today’s political climate propose pushing on with the marketization of health care. They would shift more public money to private insurers; funnel Medicare through private managed care; and further fray the threadbare safety net of Medicaid, public hospitals, and community clinics. These steps would fortify investors’ control of care, squander additional billions of dollars on useless paperwork, and raise barriers to care still higher. Instead, we propose a fundamental change in US health care—a comprehensive NHI program.

Four principles shape this vision of reform:

1. Access to comprehensive health care is a human right. It is the responsibility of society, through its government, to ensure this right. Coverage should not be tied to employment.
2. The right to choose and change one’s physician is fundamental to patient autonomy. Patients should be free to seek care from any licensed health care professional.
3. Pursuit of corporate profit and personal fortune have no place in caregiving. They create enormous waste and too often warp clinical decision making.
4. In a democracy, the public should set health policies and budgets. Personal medical decisions must be made by patients with their caregivers, not by corporate or government bureaucrats.

We envision an NHI program that builds on the strengths and rectifies the deficiencies of the current Medicare system. Coverage would be extended to all age groups and expanded to include prescription medications and long-term care. Payment mechanisms would be structured to improve efficiency and ensure prompt, fair reimbursement, while reducing bureaucracy and cost shifting. Health planning would be enhanced to improve the availability of resources and minimize wasteful duplication. Finally, investor-owned facilities would be phased out. These reforms would shift resources from bureaucracy to the bedside, allowing universal coverage without increasing the total costs of health care.

Key features of the proposal [in italics] followed by the rationale for our approach are presented below.

ELIGIBILITY AND COVERAGE

A single public plan would cover every American for all medically necessary services, including long-term care, mental health and dental services, and prescription drugs and supplies. Unnecessary or ineffective services, as determined by boards of experts and community representatives, would be excluded from coverage. As in the Medicare program, private insurance duplicating the public coverage would be proscribed. Patient co-payments and deductibles would also be eliminated.

Abolishing financial barriers to health care is the sine qua non of reform. Only a single comprehensive program, covering rich and poor alike, can end disparities based on race, ethnicity, social class, and geographic region that compromise the health care of the American people. A single-payer program is also key to minimizing the complexity and expense of billing and administration.

Private insurance that duplicates the NHI coverage would undermine the public system in several ways. First, the market for private coverage would disappear if the public coverage were fully adequate. Hence, private insurers would continually lobby for underfunding of the public system. Second, if the wealthy could turn to private coverage, their support for adequate funding of NHI would also wane. Why pay taxes for coverage they don’t use? Third, private coverage would encourage physicians and hospitals to provide 2 classes of care. Fourth, a fractured payment system, preserving the chaos of multiple claims databases, would subvert quality improvement efforts, eg, the monitoring of surgical death rates and other patterns of care. Fifth, eliminating multiple payers is essential to cost containment. Public administration of insurance funds would save tens of billions of dollars each year.

Private health insurers and HMOs now consume 12% of premiums for overhead, while both the Medicare program and Canadian NHI have overhead costs below 3.2%. Our multiplicity of insurers forces US hospitals to spend more than twice as much as Canadian hospitals on billing and administration; forces US physicians to spend vast amounts on billing; and nourishes a panoply of business consultants, coding software vendors, and other satellite businesses. Only a true single-payer system would realize large administrative savings. Perpetuating multiple payers would force hospitals to maintain expensive cost-accounting systems to attribute costs and charges to individual patients and payers. In the United Kingdom, market-based reforms that fractured hospital payment have swollen administrative costs.

Co-payments and deductibles discourage preventive care, decrease the...
use of essential care, are expensive to administer, and especially endanger the most vulnerable patients—the poor and those with chronic illnesses. Many nations with NHI have effectively contained costs without resorting to such charges.

Coverage decisions would doubtless be difficult and sometimes hotly contested. Even the fairest and best-informed board would confront costly choices where evidence was sparse and passions abundant. Yet we are encouraged by Medicare's generally open and reasoned approach. Moreover, in both Medicare and NHI, the inclusion of the affluent in the same program with others creates a powerful lobby for maintaining adequate coverage. For these reasons, we believe NHI provides a framework for replacing the confused and often unjust dictates of insurance companies with rational, evidence-based decision making.

**HOSPITAL PAYMENT**

The NHI program would pay each hospital a monthly lump sum to cover all operating expenses. The hospital and the regional NHI office would negotiate the amount of this payment annually based on past budgets, clinical performance, projected changes in demand for services and input costs, and proposed new programs. Hospitals would not bill for services covered by NHI.

Hospitals could not use any of their operating budgets for expansion, profit, excessive executives' incomes, marketing, or major capital purchases or leases. Major capital expenditures would come from the NHI fund and would be appropriated separately based on community needs. Investor-owned hospitals would be converted to not-for-profit status and their owners compensated for past investment.

Global budgeting would simplify hospital administration by virtually eliminating billing, thus freeing up resources for enhanced clinical care. Prohibiting the transfer of operating funds to capital projects or shareholders would eliminate the main financial incentive for both excessive interventional (under fee-for-service payment) and skimming on care (under capitated or diagnosis related group systems), since neither inflating revenues nor limiting care could result in institutional gain. Separate and explicit appropriation of capital funds would facilitate rational health care planning. These methods of hospital payment would shift the focus of hospital administration away from lucrative services that enhance the bottom line and toward providing optimal clinical services according to patients' needs.

**PAYMENT FOR PHYSICIANS AND OUTPATIENT CARE**

Physicians and other practitioners could choose from 3 payment options: fee-for-service, salaried practice in institutions receiving global budgets, and salaried practice in group practices or HMOs receiving capitation payments. Investor-owned HMOs and group practices would be converted to not-for-profit status. Only institutions that actually deliver care could receive NHI payments, excluding most current HMOs and some practice management firms that contract for services but don't own or operate clinical facilities.

1. **Fee-for-service**: The NHI and organizations representing fee-for-service practitioners (eg, medical associations) would negotiate a simple, binding fee schedule. As in Canada, physicians would submit bills on a simple form or via computer and would receive interest for bills not paid within 30 days. Physicians accepting payment from the NHI program could not bill patients for covered services, but they could bill for excluded procedures such as cosmetic surgery.

2. **Salaries within institutions receiving global budgets**: Hospitals, group practices, clinics, home care agencies, and the like could elect to be paid a global budget, which could include funding for items such as education, community prevention programs, and patient care. Regulations regarding capital payment would be similar to those for inpatient hospital services, as would the budget setting process.

3. **Salaries within capitated groups**: Group practices and nonprofit HMOs could opt to receive capitation payments to cover all physicians and other outpatient care. Regulation of payment for capital would be similar to that for hospitals. The capitation payment would not cover most inpatient services, which would be included in hospital global budgets. However, a capitated group could elect to provide and be compensated for physician services to inpatients. Enrollment would be open to any patient, and efforts to selectively enroll those at low risk would be prohibited. Patients could disenroll with appropriate notice. Health maintenance organizations would pay physicians a salary, and bonuses based on the utilization or expense of care would be prohibited.

The proposed pluralistic approach to health care delivery would avoid unnecessary disruption of current practice arrangements. All 3 proposed options would eliminate profiteering and unencapped capital from operating costs, features essential to cost containment and health planning.

The fee-for-service option would greatly reduce physicians' office overhead by simplifying billing. Canada and several European nations have developed successful mechanisms for controlling the inflationary potential of fee-for-service practice.¹⁸ These include limiting the supply of physicians, monitoring for extreme practice patterns, and setting overall limits on regional spending for physicians' services (thus requiring the profession to monitor itself). Because of the administrative advantages of single-source funding, these regulatory options have been implemented without extensive bureaucracy. Similar cost-constraint mechanisms might be needed in the United States. We also recommend capping expenditures for the regulatory and reimbursement apparatus; the Canadian experience suggests that 2% to 3% of total costs should suffice.¹⁹

Global budgets would allow institutions to virtually eliminate billing, while assuring them a predictable revenue stream. Such funding could also stimulate the development of community prevention programs whose costs cannot
be attributed (or billed) to individual patients.

LONG-TERM CARE
The NHI program would cover disabled Americans of all ages for all necessary home and nursing home care. Persons unable to perform activities of daily living would be eligible for services. A local public agency in each community would determine eligibility and coordinate care. Each agency would receive a single budgetary allotment to cover the full array of long-term care services in its district. The agency would contract with long-term care providers for the full range of needed services, eliminating the perverse incentives in the current system that often pays for expensive institutional care but not the home-based services that most patients would prefer.

The NHI program would pay long-term care facilities and home care agencies a lump sum budget to cover all operating expenses. For-profit nursing homes and home care agencies would be converted to not-for-profit status. Physicians, nurses, therapists, and other individual long-term care providers would be paid on either a fee-for-service or salary basis.

Since most disabled and elderly people would prefer to remain in their homes, the program would encourage home- and community-based services. The 7 million unpaid caregivers, the family and friends who currently provide 70% of all long-term care, would be assisted through training, respite services, and in some cases, financial support. Nurses, social workers, and an expanded cadre of trained geriatric physicians would assume leadership of the system.

Few Americans have private coverage for long-term care. For the rest, only virtual bankruptcy brings entitlement to public coverage under Medicaid. Universal coverage must be combined with local flexibility to match services to needs.

Our proposal borrows features from successful long-term care programs in some Canadian provinces and in Germany. The German program, in particular, demonstrates the fiscal and humanitarian advantages of encouraging rather than displacing family caregivers, offering them recompense, training, and other supports.22

CAPITAL SPENDING, HEALTH PLANNING, AND PROFIT
The NHI budget would fund the construction of health facilities and the purchase of expensive equipment. Regional health planning boards would allocate these capital funds. These boards would also oversee capital projects funded from private donations when they entailed any increase in future publicly supported operating costs.

The NHI program would compensate owners of investor-owned hospitals, HMOs, nursing homes, and clinics for the loss of their clinical facilities, as well as any computers and administrative facilities needed to manage NHI. They would not be reimbursed for loss of business opportunities or for administrative capacity not used by NHI.

Capital spending drives operating costs and determines the geographic distribution of resources. Capital funds must go to excellent and efficient projects in areas of greatest need. When operating and capital payments are combined, as they are currently, prosperous hospitals can expand and modernize while impoverished ones cannot, regardless of need or quality. National health insurance would replace implicit mechanisms of capital allocation with explicit ones. Insulating these crucial decisions from lobbying and other distorting influences would be difficult and require rigorous evaluation, needs assessment, and active participation by providers and the public. The consistently poor performance of investor-owned facilities precludes their participation in NHI.

Investor ownership has been shown to compromise quality of care in hospitals, nursing homes, dialysis facilities, and HMOs, for-profit hospitals are particularly costly.6-12 A wide array of investor-owned firms have defrauded Medicare and been implicated in other illegal activities.28 Investor-owned providers would be converted to nonprofit status. The NHI program would issue long-term bonds to amortize the one-time costs of compensating investors for the appraised value of their facilities. These conversion costs would be offset by reductions in payments for capital that are currently folded into Medicare and other reimbursements.

MEDICATIONS AND SUPPLIES
The NHI program would pay for all medically necessary prescription drugs and medical supplies, based on a national formulary. An expert panel would establish and regularly update the formulary. The NHI program would negotiate drug and equipment prices with manufacturers based on their costs, excluding marketing or lobbying. Where therapeutically equivalent drugs are available, the formulary would specify use of the lowest-cost medication, with exceptions available in specific cases. Outpatient suppliers would bill the NHI program directly for the negotiated wholesale price, plus a reasonable dispensing fee, for any item in the formulary that is prescribed by a licensed practitioner.

National health insurance could simultaneously address 2 pressing needs: providing all Americans with full drug coverage and containing drug costs. As a single purchaser with a disproportionate influence on the market, the NHI program could exert substantial pressure on pharmaceutical companies to lower prices. Similar programs in the United States and other nations have resulted in substantial drug price reductions.27-29

Additional reforms are needed to improve prescribing practices, minimize medication errors, upgrade monitoring of drug safety, curtail pharmaceutical marketing, ensure that the fruits of publicly funded drug research are not appropriated for private profit, and stimulate real innovation while ameliorating current incentives to develop “me-too” drugs that add little to the therapeutic armamentarium.30

FUNDING
The NHI program would pay for virtually all medically necessary health ser-
services, with total expenditures set at approximately the same proportion of the gross domestic product as in the year preceding the establishment of NHI.

While it is critical that the vast majority of funds flow out to providers from a single payer in each region, the mix of taxes used to raise these funds is a matter of tax policy, largely separate from the organization of health care per se.

Single-source payment is the sine qua non of administrative simplification and the cornerstone of cost containment and health planning. Government expenditures, including payments for public employees' private health coverage and tax subsidies to private insurance, already account for about 60% of total health spending in the United States.³¹ This would increase under NHI, to perhaps 80% of health costs with the remainder used for such items as nonprescription drugs, cosmetic surgery, and other excluded services. The public money now routed through private insurers would be used to fund public coverage. The additional funds could be raised in a number of ways, including earmarked income taxes, payroll taxes, or required employer contributions. During a transition period, it seems reasonable to require that employers transfer money earmarked for health benefits under existing labor pacts to the NHI program. In the long run, we believe that funding based on income or other progressive taxes is fairest. Federal funding would attenuate inequalities among the states in financial and medical resources. The increase in government funding would be offset by reductions in premiums and out-of-pocket costs. The total costs of the NHI program would be no greater (and eventually less) than those of the current fragmented system.

COMMENT

Under an NHI program, the financial threat of illness to patients would be eliminated, as would current restrictions on choice of physicians and hospitals. Taxes would increase, but except for the very wealthy, would be fully offset by the elimination of insurance premiums and out-of-pocket costs. Most important, NHI would establish a right to health care.

Clinical decisions would be driven by science and compassion, not the patient’s insurance status or bureaucratic dictum. National health insurance would offer physicians a choice of payment options and practice settings. Nurses and other personnel would also benefit from the reduction in paperwork and a more humane clinical milieu.

National health insurance would curtail the entrepreneurial aspects of medicine, including both the problems and the possibilities. All patients would be insured, with a uniform fee schedule. Physicians who work harder would make more. Billing would be simplified, saving each practitioner thousands of dollars annually in office expense. Based on experience in Canada, NHI would have little impact on physicians’ average incomes, although differences among specialties might be attenuated.

National health insurance would contain costs by enforcing overall budgets and eliminating profit incentives and not by detailed administrative oversight of utilization. Since hospitals and HMOs could not transfer monies for patient care to shareholders or divert them to institutional expansion, pressure to skimp on care would be minimized.

National health insurance would eliminate many administrative and insurance worker positions, necessitating a major effort at job placement and retraining. Many of these displaced workers might be deployed as support personnel to free up nurses for clinical tasks; others might be retrained to staff expanded programs in public health, home care, and the like.

Clinical departments would see only modest changes, eg, the elimination of billing-related work. However, hospitals’ and nursing homes’ administrative departments would shrink, and their financial incentives would change. Responsiveness to community needs, quality of care, and efficiency would replace financial performance as the bottom line. Operating revenues would become stable and predictable; capital requests would be weighed against other priorities for health care investment. Facilities would not grow or shrink based on their financial performance, although rational health planning would mandate that some expand and others close. Investor-owned providers would be converted to not-for-profit status.

The insurance/HMO industry’s role would be virtually eliminated. Most of the funds to expand care under NHI would come from eliminating insurance company overhead and profits, as well as the administrative expense they impose on health professionals and hospitals.

Private employers now fund 19% of health spending.³¹ Even if new NHI taxes on employers fully replaced this spending, firms would achieve savings on their employee benefits departments, which currently cost billions of dollars to administer. Hence, for the average business, reform would likely yield at least modest short-term savings. Over the longer term, enhanced cost containment under NHI would spare firms from rapid and erratic health care cost growth. Many firms would undoubtedly choose to continue current wellness programs and workplace safety initiatives.

Covering the uninsured would save thousands of lives annually.³² Upgrading coverage for those who are currently insured (eg, by adding full prescription drug benefits) would yield additional health benefits.

Independent estimates by several government agencies and private sector experts indicate that NHI would not increase total health care costs.³³-³⁷ Savings on administration and billing, which would drop from the current 30% of total health spending to perhaps 15%, would approximately offset the costs of expanded services. Over the long run, improvements in health planning and cost containment made possible by single-source payment would slow health care cost escalation.

This article presents a framework for the urgently needed reform of our health
care payment system. We do not pretend to address the full range of health care problems or even to provide the detailed transition plan that will be needed to minimize dislocations during reform of the financing system. The need for quality improvement would remain urgent. National health insurance would not, in itself, encourage healthy lifestyles or upgrade environmental and public health services. Nonfinancial barriers to care—racial, linguistic, and geographic—would persist. Many issues in medical education would remain, including medical students’ debt burden that skews specialty choices and discourages low-income applicants, the underrepresentation of minorities, and the appropriate role for commercial firms in supporting research and education. Some patients would still seek unnecessary services, and some physicians would still yield to financial temptation to provide them. The malpractice crisis would be partially ameliorated—the 25% of jury awards designated as compensation for future medical costs would be eliminated. However, our society would probably remain litigious, and legal and insurance fees would still consume about three fifths of malpractice premiums. The aging of our population and the development of costly new technologies would present a continuing challenge to affordability.

Finally, while we propose a central role for government in financing care, we hold no illusions about government’s shortcomings. Many of us disagree with government policies and priorities and are concerned by the influence of powerful special interests. Yet only a public NHI program can influence the boardroom decision making of private insurance firms.

**ALTERNATIVES TO NHI**

The mounting crisis in health care has called forth a variety of incremental reform proposals discussed below. All share one critical liability: because they would retain the role of private insurers, they would perpetuate administrative waste, making universal coverage unaffordable. Most would augment bureaucracy. Proponents’ assertions that private insurers would achieve large savings through computerized bill processing are not credible; most claims processing is already automated.

**“Defined Contribution Schemes” and Other Mechanisms to Increase Patients’ Price Sensitivity**

These plans cap employers’ premium contributions at a fixed amount, pressuring employees to choose lower-cost insurance options. Many cite the Federal Employees Health Benefit Program as a model for such reform, even though premiums in this program are rising faster than in Medicare or for private employers. Hence, such programs are more likely to shift costs from firms to employees than to slow overall cost growth. Moreover, defined contribution schemes ensure a multi-tiered insurance system, with lower-income workers forced into skimpy plans, and the uninsured remaining uncovered.

**Tax Subsidies and Vouchers for Coverage for the Uninsured**

These proposals would offer tax credits to low-income families who purchase private coverage. While promises of new government funding to expand coverage are attractive, the proposed subsidies (eg, $3000 per family under President Bush’s proposal) fall far short of the cost of adequate insurance, requiring low-income families to pay thousands of dollars out of their own pockets. Hence, few of the uninsured would actually purchase coverage, even with the subsidy. Instead, most of the tax credits would subsidize premiums for low-income people who already have coverage. As a result, large outlays for tax subsidies would buy little new coverage. For instance, outlays of $13 billion annually would cover only 4 million of the uninsured.

**Expansion of Medicaid, State Children’s Health Insurance Program (SCHIP), and Other Public Programs**

Some proposals would expand Medicaid eligibility. Others would allow states to buy stripped-down HMO coverage for Medicaid recipients, with the savings ostensibly used to enroll more beneficiaries. Several problems bedevil these strategies. First, Medicaid already offers second-class coverage. Such programs that segregate the poor virtually ensure poor care and are more vulnerable to funding cuts than public programs that also serve affluent constituencies. In most states, Medicaid payment rates are so low that many physicians resist caring for Medicaid patients. As a result, access to care for Medicaid enrollees is often little better than for the uninsured. Further cuts to benefits, as envisioned in some Medicaid HMO schemes, would leave Medicaid recipients with coverage in name only. Moreover, the disempowered Medicaid population is particularly vulnerable to exploitation by profit-seeking HMOs, as evidenced by past scandals in California, Florida, Tennessee, and other states. Promises (eg, in Oregon and Tennessee) that savings from Medicaid coverage cuts would lead to universal coverage have proven empty.

Second, even large Medicaid expansions in the past have failed to keep pace with the erosion of private coverage. Moreover, Medicaid funding is most endangered when it is most needed; any economic downturn depletes states’ tax revenues, reducing funds for Medicaid just as rising unemployment rates deprive many of private coverage.

While few can argue with proposals to cover more of the poor and near-poor, Medicaid expansion without systemwide reform is a stopgap measure unlikely to stem future increases in the number of uninsured. It does not lead to universal coverage.

**Employer Mandates**

This approach would require most employers to offer private coverage for
their workers, with employees paying part of the premiums. The proposed mandates are usually coupled with a plan to expand Medicaid-like public programs. Some versions would offer employers the option of paying into a public program rather than providing the coverage themselves. Such programs can only add coverage by adding cost, leaving premiums unaffordable to many. In states where such plans have been passed, they have achieved neither universal coverage nor cost control.\textsuperscript{1,50-53} Hawai'i's program has left many uncovered because of loopholes in the law, and costs in that state have continued to spiral upward. A 1988 Massachusetts employer mandate law was passed but later abandoned when costs soared.\textsuperscript{51}

The Medicare HMO Program and Medicare Voucher Schemes

Under Medicare's HMO program, private HMOs have already enrolled millions of senior citizens. Prominent proposals would expand Medicare's use of private insurers by offering seniors a voucher to purchase private coverage in lieu of traditional Medicare. These strategies assume that private plans are more efficient than Medicare, that seniors can make informed choices among health plan options, and that private insurers’ risk avoidance can be thwarted. All 3 assumptions are ill-founded. Traditional Medicare is more efficient than commercial insurers; costs per beneficiary have risen more slowly and overhead is far lower.

An American Association of Retired Persons survey of seniors found that few had adequate knowledge to make informed choices among plans.\textsuperscript{54} Despite regulations prohibiting risk selection in the current Medicare HMO program, plans have successfully recruited healthier than average seniors. Hence HMOs have collected high premiums for patients who would have cost Medicare little had they remained in fee-for-service Medicare. Moreover, HMOs have evicted millions of seniors in counties where profits are low, while continuing to enroll Medicare patients in profitable areas.\textsuperscript{55} As a result, HMOs have increased Medicare costs by $2 billion to $3 billion each year\textsuperscript{2} and disrupted the continuity of care for many patients.

A voucher program for Medicare would also push low-income seniors into skimpy plans similar to the defined contribution approach to employee coverage discussed above. Moreover, Congress is unlikely to increase the value of the voucher to keep pace with the rising costs of private plans. Over time, seniors' out-of-pocket costs for coverage would likely rise.

CONCLUSION

Health care reform is again near the top of the political agenda. Health care costs have turned sharply upward. The number of Americans without insurance or with inadequate coverage rose even in the boom years of the 1990s. Medicare and Medicaid are threatened by ill-conceived reform schemes, and middle-class voters are very concerned about the abuses of managed care. Other wealthy countries manage to provide universal health care at half the cost we pay. Their problems stem mainly from inadequate funding, not the structure of their systems. In contrast, the problems in the United States are systemic. Incremental changes cannot solve them; further reliance on market-based strategies will exacerbate them. What needs to be changed is the system itself.

Author Contributions: Article concept and design: Woolhandler, Himmelstein, Angell, Young. Acquisition of data: Woolhandler, Himmelstein, Young. Analysis and interpretation of data: Woolhandler, Himmelstein, Angell, Young. Drafting of the manuscript: Woolhandler, Himmelstein, Angell, Young. Critical revision of the manuscript for important intellectual content: Woolhandler, Himmelstein, Angell, Young. Administrative, technical, or material support: Woolhandler, Himmelstein, Young. Study supervision: Woolhandler, Himmelstein, Young.

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Thoughts give birth to a creative force that is neither elemental nor sidereal... Thoughts create a new heaven, a new firmament, a new source of energy, from which new arts flow.

—Philippus Aureolus Paracelsus (c 1493-1541)
Frequently Asked Questions

What is single payer?
Single-payer national health insurance is a system in which a single public or quasi-public agency organizes health financing, but delivery of care remains largely private. Under a single-payer system, all Americans would be covered for all medically necessary services, including: doctor, hospital, preventive, long-term care, mental health, reproductive health care, dental, vision, prescription drug and medical supply costs. Patients would regain free choice of doctor and hospital, and doctors would regain autonomy over patient care.

What will be covered?
All medically necessary care would be funded through the single payer, including doctor visits, hospital care, prescriptions, mental health services, nursing home care, rehab, home care, eye care and dental care. Alternative care that is proven in clinical trials to be effective will be covered. In general, coverage decisions will be made by the health care planning board or another public body. New kinds of treatments will be added to the benefits package over time as they are shown to be effective.

Who will run the health care system?
In a public system, the public has a say in how it’s run. Cost containment measures are publicly managed at the state level by elected and appointed agencies that represent the public. This agency decides on the benefit package and negotiates doctor fees and hospital budgets. It also is responsible for health planning and the distribution of expensive technology. Thus, the total budget for health care is set through a public, democratic process, but clinical decisions remain a private matter between doctor and patient.

There is a myth that with national health insurance the government will make the medical decisions. But in a publicly financed, universal health care system, medical decisions are left to the patient and doctor – as they should be. This is true even in the countries like the U.K. and Spain (or in U.S. systems like the VA) that have socialized medicine.

Won’t this just be another bureaucracy?
The United States has the most bureaucratic health care system in the world. Over 31% of every health care dollar goes to paperwork, overhead, CEO salaries, profits, etc. Because the U.S. does not have a unified system that serves everyone, and instead has thousands of different insurance plans, each with its own marketing, paperwork, enrollment, premiums, and rules and regulations, our insurance system is both extremely complex and fragmented.

In contrast, the Medicare program operates with just 3% overhead, compared to 15% to 25% overhead at a typical HMO. Provincial single-payer plans in Canada have an overhead of about 1%.

It is not necessary to have a huge bureaucracy to decide who gets care and who doesn’t when everyone is covered and has the same comprehensive benefits. With a universal health care system we would be able to cut our bureaucratic burden in half and save over $300 billion annually.

Won’t this raise my taxes? How will the system be financed?
Currently, about 60% of our health care system is financed by public money: federal and state taxes, property taxes and tax subsidies. These funds pay for Medicare, Medicaid, the VA, coverage for public employees (including police and teachers), elected officials, military personnel, etc. There are also hefty tax subsidies to employers to help pay for their employees’ health insurance. About 20% of health care is financed by all of us individually through out-of-pocket payments, such as co-pays, deductibles, the uninsured paying directly for care, people paying privately for premiums, etc. Private employers only pay 21% of health care costs. In all, it is a very “regressive” way to finance health care, in that the poor pay a much higher percentage of their income for health care than higher income individuals do.

A universal public system would be financed in the following way: The public funds already funneled to Medicare and Medicaid would be retained. The difference, or the gap between current public funding and what we would need for a universal health care system, would be financed by a payroll tax on employers (about 7%) and an income tax on individuals (about 2%). The payroll tax would replace all other employer expenses for employees’ health care, which would be eliminated. The income tax would take the place of all current insurance premiums, co-pays, deductibles, and other out-of-pocket payments.
For the vast majority of people, a 2% income tax is less than what they now pay for insurance premiums and out-of-pocket payments such as co-pays and deductibles, particularly if a family member has a serious illness. It is also a fair and sustainable contribution.

Currently, nearly 50 million people have no insurance and hundreds of thousands of people with insurance are bankrupted when they have an accident or illness. Employers who currently offer no health insurance would pay more, but those who currently offer coverage would, on average, pay less. For most large employers, a payroll tax in the 7% range would mean they would pay slightly less than they currently do (about 8.5%). No employer, moreover, would gain a competitive advantage because he had scrimped on employee health benefits. And health insurance would disappear from the bargaining table between employers and employees.

**How much do private insurance companies spend on overhead and profit?**

Private insurance overhead and profit, on average, fluctuates between 12% and 14% nationally. This figure is somewhat lower than the 16-20% at many of the big insurers because it includes self-insured plans of many big employers that have overhead of about 6-7%. On the other hand, overhead in the individual market is often substantially higher than 20%, and in some cases above 30%.

The estimate that total administrative costs consume 31% of U.S. health spending is from research by Drs. David Himmelstein and Steffie Woolhandler and published in the *New England Journal of Medicine* in 2003. Insurance overhead accounts for a minority of the overhead. Much more occurs in physicians' offices, hospitals, and nursing homes - driven by our current fragmented payment system. The fact that insurance overhead per se accounts for a minority of the bureaucratic waste in the system explains why implementing a public option plan would not achieve most of the potential bureaucratic savings that can be realized through single payer. Even with a public option, hospitals, physicians and nursing homes would still have to maintain virtually all of their internal billing and cost tracking apparatus in order to fight with private insurers.

**Why are health care costs rising and how can single payer “bend the cost curve”?**

High administrative costs and excessive - and even ridiculous - prices under the current system are themselves symptoms of the increasing commercialization of health care and the growing dominance of private firms in health care delivery and financing. Cutting administrative costs and mandating reasonable pricing would result in very large one-time savings and allow an affordable transition to comprehensive coverage of the un- and under-insured, but without other cost control mechanisms these savings would soon be eaten up by continued health care inflation.

Over the longer term, the keys to savings lie in improved health planning implemented through control of capital spending, as well as limitations on market incentives and limitations on for-profit involvement in health care delivery.

- Health planning to assure that investments in expensive new technology meet needs, but do not exceed them, is the only proven means to limit the excessive and dangerous interventions that drive up costs and lower quality. It is the salutary alternative to the current strategies of case-by-case review by HMOs, or the potentially disastrous incentives offered under capitation arrangements.
- Limits on for-profit ownership and excessive compensation of health care executives are needed to dull the incentives for institutional gain at the expense of system-wide performance. For-profit hospitals and dialysis facilities paid by Medicare have higher costs and lower quality than non-profits. Eliminating them is key to "bending the cost curve."

**How will we keep costs down if everyone has access to comprehensive health care?**

People will seek care earlier when chronic diseases such as hypertension and diabetes are more treatable. We know that both the uninsured and many of those with skimpy private coverage delay care because they are afraid of health care bills. This will be eliminated under such a system. Undoubtedly the costs of taking care of the medical needs of people who are currently skimping on care will cost more money in the short run. However, all of these new costs to cover the uninsured and improve coverage for the insured will be fully offset by administrative savings.

In the long run, the best way to control costs is to improve health planning to assure appropriate investments in expensive, high-tech care, to negotiate fees and budgets with doctors, hospital and drug companies, and to set and enforce a generous but finite overall budget.

**Won’t competition be impeded by a universal health care system?**

Advocates of the “free market” approach to health care claim that competition will streamline the costs of health care and make it more efficient. What is overlooked is that past competitive activities in health care under a free market system have been wasteful and expensive, and are the major cause of rising costs.

There are two main areas where competition exists in health care: among the providers and among the payers. When, for example, hospitals compete they often duplicate expensive equipment in order to corner more of the market for lucrative procedure-oriented care. This drives up overall medical costs to pay for the equipment and encourages overtreatment. They also waste money on advertising and marketing. The preferred scenario has hospitals coordinating services and cooperating to meet the needs of their communities.

Competition among insurers (the payers) is not effective in containing costs either. Rather, it results in competitive
practices such as avoiding the sick, cherry-picking, denial of payment for expensive procedures, etc. An insurance firm that engages in these practices may reduce its own outlays, but at the expense of other payers and patients.

How will we keep doctors from doing too many procedures?
This is a problem in any system that reimburses physicians on a fee-for-service basis. In today’s health system, another problem is physicians doing too little for patients. So the real question is, “How do we discourage both overcare and undercare?”

One approach is to carefully control new capital expenditures. Once a hospital or imaging center purchases a multimillion-dollar CT scanner, it will try to generate enough scans to pay off the fixed cost. Explicit health planning should be done to assure that expensive machines and facilities are sited where they are needed and not where they are redundant and likely to generate overuse.

Another approach is to compare physicians’ use of tests and procedures to their peers with similar patients. A physician who is “off the curve” will stand out. A related approach is to set spending targets for each specialty. This encourages doctors to be prudent stewards and to make sure their colleagues are as well, because any doctor doing unnecessary procedures will be taking money away from colleagues.

In addition, expert guidelines by groups like the American College of Physicians, etc., can help shape professional standards - which will certainly change over time as treatments change. This really gets to the heart of “how do you improve the quality of health care,” which is a longer topic. Suffice it to say that single-payer, universal coverage provides a framework for achieving thoughtful quality improvement.

How will we keep drug prices under control?
When all patients are under one system, the payer wields a lot of clout. The VA gets a 40% discount on drugs because of its buying power. This “monopsony” buying power is the main reason why other countries’ drug prices are lower than ours. This also explains the drug industry’s staunch opposition to single-payer national health insurance.

Won’t this result in rationing like in Canada?
The U.S. already rations care. Rationing in U.S. health care is based on income: if you can afford care, you get it; if you can’t, you don’t. A recent study by the prestigious Institute of Medicine found that 18,000 Americans die every year because they don’t have health insurance. Many more skip treatments that their insurance company refuses to cover. That’s rationing. Other countries do not ration in this way.

If there is this much rationing, why don’t we hear about it? And if other countries ration less, why do we hear about them? The answer is that their systems are publicly accountable, and ours is not. Problems with their health care systems are aired in public; ours are not. For example, in Canada, when waits for care emerged in the 1990s, Parliament hotly debated the causes and solutions. Most provinces have also established formal reporting systems on waiting lists, with wait times for each hospital posted online. This public attention has led to recent falls in waits there.

In U.S. health care, no one is ultimately accountable for how the system works. No one takes full responsibility. Rationing in our system is carried out covertly through financial pressure, forcing millions of individuals to forego care or to be shunted away by caregivers from services they can’t pay for.

The rationing that takes place in U.S. health care is unnecessary. A number of studies (notably a General Accounting Office report in 1991 and a Congressional Budget Office report in 1993) show that there is more than enough money in our health care system to serve everyone if it were spent wisely. Administrative costs are at 31% of U.S. health spending, far higher than in other countries’ systems. These inflated costs are due to our failure to have a publicly financed, universal health care system. We spend about twice as much per person as Canada or most European nations, and still deny health care to many in need. A national health program could save enough on administration to assure access to care for all Americans, without rationing.

Will medical research suffer?
Much current medical research is publicly financed through the National Institutes of Health. Under a universal health care system this would continue. For example, a great deal of basic drug research, for example, is funded by the government. Drug companies are invited in for the later stages of “product development,” the formulation and marketing of new drugs. AZT for HIV patients is one example. The early, expensive research was conducted with government money. After the drug was found to be effective, marketing rights went to the drug company.

Medical research does not disappear under universal health care system. Many famous discoveries have been made in countries with national health care systems. Laparoscopic gallbladder removal was pioneered in Canada. The CT scan was invented in England. The treatment for juvenile diabetes by transplanting pancreatic cells was developed in Canada.

It is also important to note that studies show that, in the U.S., the number of clinical research grants declines in areas of high HMO penetration. This suggests that managed care increasingly threatens clinical research. Another study surveyed medical school faculty and found that it was more difficult to do research in areas where high HMO penetration has enforced a more business-oriented approach to health care.

Finally, it appears that the increasing commercialization of research is beginning to slow innovation. Drug firms’ increasing
reliance on contract research organizations (and for-profit ethical-review boards) has coincided with a sharp drop in innovative new drugs and a spate of “me-too” drugs - minor variations on old drugs that offer little benefit other than extended patent life.

What will happen to physician incomes?

On the basis of the Canadian experience under national health insurance, we expect that average physician incomes should change little. However, the income disparity between specialties is likely to shrink.

The increase in patient visits when financial barriers fall under a single-payer system will be offset by resources freed up by a drastic reduction in administrative overhead and physicians’ paperwork. Billing would involve imprinting the patient’s national health program card on a charge slip, checking a box to indicate the complexity of the procedure or service, and sending the slip (or a computer record) to the physician-payment board.

Can a business keep private insurance if they choose?

Yes and no. Everyone has to be included in the new system for it to be able to control costs, reduce bureaucracy, and cover everyone. In Canada, businesses can purchase additional private insurance that covers things not covered by the national plan (e.g. private rooms, orthodontia, etc.). However, we support a comprehensive benefit package for the single-payer program that would eliminate the need (and most demand) for supplemental coverage.

Insurance companies would not be allowed to offer the same benefits as the universal health care system, a restriction contained in the traditional Medicare program. Allowing such duplication of coverage weakens and eventually destabilizes the health care system. It undermines the principle of pooling the risk. Health care systems act as universal insurers. At any one time the healthy help pay for those who are ill. If private insurers are allowed to cherry-pick the healthy, leaving the public health care system with the very sick, the system will fail.

This, in fact, is what we see happening to Medicare through the Medicare Advantage program. The government pays Medicare HMOs 13% more than it pays traditional Medicare, yet the HMOs care for a healthier mix of seniors. This is leading to privatization of Medicare and funding shortfalls for the traditional Medicare program.

Why shouldn’t we let people buy better health care if they can afford it?

Whenever we allow the wealthy to buy better care or jump the queue, health care for the rest of us suffers. If the wealthy are forced to rely on the same health system as the poor, they will use their political power to assure that the health system is well funded. Conversely, programs for the poor become poor programs. For instance, because Medicaid doesn’t serve the wealthy, the payment rates are low and many physicians refuse to see Medicaid patients. Calls to improve Medicaid fail on deaf ears because the beneficiaries are not considered politically important. Moreover, when the wealthy jump the queue, it results in longer waits for others. Studies in New Zealand and Canada show that the growth of private care in parallel to the public system results in lengthening waits. Additionally, allowing the development of a parallel, private system for the wealthy means the creation of a permanent lobby for underfunding public care. Such underfunding increases the demand for private care.

What will happen to all of the people who work for insurance companies?

The new system will still need some people to administer claims. Administration will shrink, however, eliminating the need for many insurance workers, as well as administrative staff in hospitals, clinics and nursing homes. More health care providers, especially in the fields of long-term care, home health care, and public health, will be needed, and many insurance clerks can be retrained to enter these fields. Many people now working in the insurance industry are, in fact, already health professionals (e.g. nurses) who will be able to find work in the health care field again. But many insurance and health administrative workers will need a job retraining and placement program. We anticipate that such a program would cost about $20 billion, a small fraction of the administrative savings from the transition to national health insurance.

PNHP has worked with labor unions and others to develop plans for a jobs conversion program with would protect the incomes of displaced clerical workers until they were retrained and transitioned to other jobs.

What will happen to malpractice costs under national health insurance?

They will fall dramatically, for several reasons. First, about half of all malpractice awards go to pay present and future medical costs (e.g. for infants born with serious disabilities). Single payer national health insurance will eliminate the need for these awards. Second, many claims arise from a lack of communication between doctor and patient (e.g. in the Emergency Department). Miscommunication/mistakes are heightened under the present system because physicians don’t have continuity with their patients (to know their prior medical history, establish therapeutic trust, etc) and patients aren’t allowed to choose and keep the doctors and other caregivers they know and trust (due to insurance arrangements). Single payer improves quality in many ways, but in particular by facilitating long-term, continuous relationships with caregivers. For details on how single payer can improve the quality of health care, see “A Better Quality Alternative: Single Payer National Health Insurance.” For these and other reasons, malpractice costs in three nations with single payer are much lower than in the United States, and we would expect them to fall dramatically here.
What proportion of health spending is for undocumented immigrants?

Very little. All foreign-born people, including immigrant workers who have legal status and who have lived in the U.S. for years, account for somewhat less than one-quarter of the uninsured, according to the Census Bureau. We do know that foreign-born people in the U.S. are, on average, healthier and utilize little health care - about half of the health care (per capita) of U.S.-born persons. Surprisingly this is true whether or not they have insurance. Immigrant children receive very little care, 74 percent less overall than other children. So, if the foreign born are less than one-quarter of the uninsured, only one-eighth of health spending on the uninsured is going to the foreign born, which translates into a tiny fraction of all U.S. health spending. In fact, most immigrants have health insurance coverage, and 30% of immigrants use no health care at all in the course of a year. Undocumented immigrants are politically unpopular and hence a convenient target, but they are not the cause of rising health care costs.

Single payer won't meet the needs of a large and diverse country like the US.

Medicare is a national program that works reasonably well. There is no reason whatsoever that would make it hard to scale up. Indeed, Medicare was initiated (and administered for tens of millions of enrollees) before computers became available - scaling it up 7 or 8 fold should not prove difficult.

In Canada, health care is administered at the provincial level. The Ontario Health Insurance Program, which includes the city of Toronto as well as rural areas, is a good example. Since much of the program we envision would be regionalized, with regions similar in size to Ontario, that program seems a sound indication that scale should not be problematic.

What about incremental reform of the health system?

As a matter of policy, PNHP expressly opposes many so-called gradual steps towards single-payer. Many well-meaning supporters often push these bills as “feasible steps” to move us towards single-payer, but the history of these kinds of health reform efforts - Hawaii in 1974, Massachusetts in 1988, Oregon in 1989, Tennessee in 1992, Minnesota in 1992, Maine in 2003, etc. - shows that despite their claims of pragmatism, incremental reforms have consistently failed for more than three decades. Incremental reforms cannot garner administrative savings and redirect them to care. Hence they always founder on the shoals of cost. In addition, these reforms distract attention from the economically realistic, if politically challenging, option of single-payer reform.

Should PNHP support a public Medicare-like “public option”?

The “public plan option” won’t work to fix the health care system for 2 reasons:

1 - It foregoes at least 84% of the administrative savings available through single payer. The public plan option would do nothing to streamline the administrative tasks (and costs) of hospitals, physicians offices, and nursing homes, which would still contend with multiple payers, and hence still need the complex cost tracking and billing apparatus that drives administrative costs. These unnecessary provider administrative costs account for the vast majority of bureaucratic waste. Hence, even 95% of Americans who are currently privately insured were to join the public plan (and it had overhead costs at current Medicare levels), the savings on insurance overhead would amount to only 16% of the roughly $400 billion annually achievable through single payer - not enough to make reform affordable.

2 - A quarter century of experience with public/private competition in the Medicare program demonstrates that the private plans will not allow a level playing field. Despite strict regulation, private insurers have successfully cherry picked healthier seniors, and have exploited regional health spending differences to their advantage. They have progressively undermined the public plan - which started as the single payer for seniors and has now become a funding mechanism for HMOs - and a place to dump the unprofitably ill. A public plan option does not lead toward single payer, but toward the segregation of patients; with profitable ones in private plans and unprofitable ones in the public plan.

What about the proposal to lower the eligibility age for Medicare to 55?

Lowering the eligibility age for Medicare to 55 only works if it is mandatory. Otherwise it becomes the place where all the sickest patients get dumped. That might be okay for the sick people since Medicare is often better and more secure than private coverage, but it would drive total health care costs (and premiums) up, not down.

Won’t the Affordable Care Act cover the nearly 50 million uninsured Americans?

The Patient Protection and Affordable Care Act (PPACA) will reduce the numbers of uninsured starting in 2014 (with about half of the new coverage being Medicaid, and the other half private plans) but by 2019 it is estimated it will still leave 30 million of the nearly 50 million Americans identified as being uninsured without coverage.

However, it is important to note that the CBO estimate of 30 million uninsured does not include a whole additional category of people who face barriers to accessing care: People who are underinsured, who will face financial hardship should medical needs arise. Underinsurance will actually increase under PPACA.

Here’s why PPACA is an underinsurance program: Employers will see little relief and will expand their present trend of shifting more insurance and health care costs onto their employees. Individuals buying plans in the new insurance exchanges will select underinsurance products with low actuarial values (30 to 40 percent of costs must be paid by the patient) with
subsidiaries that are inadequate to avoid financial hardship. Many will move into the Medicaid program which has more
expansive coverage, but which reimburses providers at such a low rate that far too many will not be willing to accept patients
under this program. With Medicaid chasing away providers, it too has become another form of underinsurance.

Thus the touted increase in insurance enrollment under PPACA will be more than offset by the explosion in
underinsurance - affecting the majority of Americans.

What is PNHP view of ACOs?

While the term ACO remains at best vaguely defined, the concept is hauntingly similar to the capitated managed care
experiment that proved disastrous in the 1990s. In both instances, providers receive a set annual payment to cover the costs of
all care, and get to keep whatever they don’t spend on patients. The obvious winning strategy - from a business point of view
- is to recruit relatively healthy patients, offering luxurious care for the healthy and minimally ill, and subtle queues that those
with expensive illness would be better off elsewhere. Neither risk adjustment nor quality-monitoring schemes are up to the
task of blunting these incentives.

An ACO can game risk adjustments by ferreting out additional diagnoses that may be clinically unimportant but would
up its capitation payment, and make its outcomes look better as well. The Dartmouth group has already shown that more
expensive providers label their patients with more diagnoses in this way. Quality monitoring efforts measure only a tiny slice
of what’s important in medicine. Overarching measures of quality like death rates and family/community well being are either
too rare to measure in a statistically reliable manner, too subtle to capture with current or foreseeable measurement strategies,
or too biased by differences in the baseline health of enrollees. Evidence from the UK shows that providers will improve on the
aspects of care that are measured, but neglect those that are not, and it’s far from clear that monitoring of quality measures has
actually improved quality or can prevent abuses.

The ACO strategy remains an untested theory for health reform. Considerable experience with similar reforms in the past
suggests that this ACO strategy will lead to yet another health policy dead end.

What is a Voucher Plan? What’s wrong with it?

A Voucher Plan is a version of health reform that seeks to provide a simplified means for individuals to purchase health
insurance, while retaining the private insurance system intact. The principal advocates of this plan are Ezekiel Emanuel, a
bioethicist now serving as one of President Obama’s principal advisors on health care reform, and Victor Fuchs, a retired
economist from Stanford University. Under this plan, individuals would be given a health care certificate, an insurance
“voucher,” which would entitle them to enroll in a private health plan of their choice. Employer-based insurance would be
eliminated. The vouchers would, under the Emanuel-Fuchs plan, be paid for through a value-added tax (VAT), essentially a
sales tax on all manufactured goods and services. This is a highly regressive way of financing such a plan, since low-income
people spend a much larger percentage of their income on purchases of goods and services than do higher-income people.
However, the main problem with such a plan is that it leaves the wasteful, inefficient, and inequitable private insurance system
in place, with no change at all in its operation. It simply makes it easier for us to purchase their defective product.

Why not use tax subsidies to help the uninsured buy health insurance?

The major flaw of tax subsidies is that they would be used to help purchase plans in our current fragmented system.
The administrative inefficiencies and inequities that characterize our system would be left in place, and we would continue
to waste valuable resources that should be going to patient care instead. Moreover, even with tax subsidies, moderate- and
lower-income individuals would be unable to afford good coverage, leaving them with modest benefits and high cost-sharing
that would often make health care unaffordable. Instead of perpetuating our current inequities, tax policies should be used to
create equity in contributions to a system in which everyone is assured access to comprehensive beneficial services.

If the tax subsidies are granted to individuals, employers would be motivated to drop their coverage, and most individuals
covered would have merely rotated from employer coverage to individual coverage. The net reduction in the numbers of
uninsured would be small. If the tax subsidies are granted to employers, a major shift in funding passes from employers to
taxpayers without significant improvements efficiency or fairness. We can use the tax system to create equity in the way
we fund health care, but we should also expect equity and efficiency in allocation of our health care resources. Distributing
health resources according to human needs is possible only if we eliminate the private health plans and establish a publicly
administered system.

What’s wrong with MSA and HSA plans?

Medical savings accounts (MSAs) and similar options such as health savings accounts (HSAs) are individual accounts from
which medical expenses are paid. Once the account is depleted and a deductible is met, medical expenses are covered by a
catastrophic plan.

Individuals with significant health care needs would rapidly deplete their accounts and then be exposed to large out-of-
pocket expenses; hence they would tend to select plans with more comprehensive coverage. Since only healthy individuals
would be attracted to the MSAs/HSAs, higher-cost individuals would be concentrated in the more comprehensive plans, driving
up premiums and threatening affordability. By placing everyone in the same pool, the cost of high-risk individuals is diluted by
Currently, HSAs offer substantial tax savings to people in high-income brackets, but little to families with average incomes, and thus serve as a covert tax cut for the wealthy.

Moreover, MSA/HSA plans discourage preventive care, which generally would be paid out-of-pocket, and do nothing to restrain spending for catastrophic care, which accounts for most health costs. Finally, HSAs/MSAs discriminate against women, whose care costs, on average, $1,000 more than men's annually. Hence, on the MSA/HAS plan, the average woman pays $1,000 more out-of-pocket than her male counterpart.

Will physician “report cards” improve quality and reduce costs?

The best study of the impact of report cards on providers (a study of heart surgeons in New York) found they actually increased costs, worsened care, and inevitably gave physicians incentives to avoid the sickest patients. Several papers have documented the destructive effect of the New York Department of Health’s heart surgery report cards. The best is by David Dranove, et al: “[O]ur results show that report cards [on heart surgeons] led to increased expenditures for both healthy and sick patients, marginal health benefits for healthy patients, and major adverse health consequences for sicker patients. Thus, we conclude that report cards reduced our measure of welfare over the time period of our study” (p. 577). “[M]andatory reporting mechanisms inevitably give providers the incentive to decline to treat more difficult and complicated patients” (p. 581).


What does PNHP have to say about the primary care workforce shortage?

Countries with strong health care systems have at least half of their physicians in generalist primary care practice 50 percent in Canada, 70 percent in the United Kingdom.

In 2008, less than 8 percent of U. S. seniors chose family medicine, a 50 percent decline since 1997; only 199 U. S. seniors matched into primary care internal medicine, 248 into IM/Peds, and 53 into primary Peds. The percentage of international medical graduates in our 3 primary care specialties is now 73 percent for IM, 68 percent for Peds, and 55 percent for Fam. Med. I don't believe that we have more than about 30 percent of our physicians in primary care. Only 20 percent of U.S. internal medicine graduates become general internists, and most pediatric graduates go into sub-specialties.

Primary care has been declining in this country for many years, as a result of multiple factors, including more attractive lifestyles and reimbursement on the non-primary care fields; student perceptions of the demands, rewards, and prestige of generalist practice; and uncertainty of the health care environment. The American College of Physicians in 2007 declared that: “Our primary care infrastructure is at grave risk of collapse.”

Single-payer national health insurance will provide an opportunity to restructure the U.S. physician workforce, strengthen and rebuild primary care. We should have at least 50 percent of our physicians in primary care fields. Useful approaches include reimbursement reform, loan forgiveness programs for graduating medical students entering primary care residencies, increased funding for graduate medical education teaching programs in primary care, and reallocation of GME training slots by specialty.

What is PNHP’s perspective on the Medicare crisis?

Medicare can only be saved by incorporating it in a single-payer program that would be very different than the current Medicare program.

1) Medicare benefits need to be greatly upgraded. At present, Medicare covers less than half of the total medical expenses incurred by its beneficiaries.

2) Medicare’s payment policies for physicians, hospitals, home care, rehab, nursing homes and HMOs are all deeply flawed.
   - Its physician fee schedule is wildly skewed toward specialist care and needlessly complex; it discourages salaried practice.
   - Its hospital payment system uses per-patient payments rather than global budgeting, and lumps together capital and operating payments – negating any real health planning possibilities.
   - Its rehab and nursing home payment methods are similarly complex, discourage health planning, and reward institutions willing and able to engage in financial scheming.
   -The home care payment system burdens nurses with extreme amounts of paperwork, rather than paying home care agencies lump sum budgets.

3) As long as Medicare is one among many payers it cannot achieve substantial administrative savings (in doctors’ offices, hospitals, and other facilities) and it cannot enforce the health planning changes needed to “bend the cost curve” over the long term.

In short, the only way to preserve Medicare is to replace it with a single payer program with comprehensive benefits and effective cost controls (negotiated fees, global budgets, and bulk purchasing) – not just incrementally expand it to the whole population.
Part 2

Our health care system is broken

Talking point 1: Our patients are dying for lack of access to care.

Nearly 45,000 Americans die annually for lack of health insurance.

Health Insurance and Mortality in US Adults

Andrew P. Wilper, MD, MPH, Steffie Woolhandler, MD, MPH, Karen E. Lasser, MD, MPH, Danny McCormick, MD, MPH, David H. Bor, MD, and David U. Himmelstein, MD

The United States stands alone among industrialized nations in not providing health coverage to all of its citizens. Currently, 46 million Americans lack health coverage.1 Despite repeated attempts to expand health insurance, uninsurance remains commonplace among US adults.

Health insurance facilitates access to health care services and helps protect against the high costs of catastrophic illness. Relative to the uninsured, insured Americans are more likely to obtain recommended screening and care for chronic conditions2 and are less likely to suffer undiagnosed chronic conditions3 or to receive substandard medical care.4

Numerous investigators have found an association between uninsurance and death.5–14 The Institute of Medicine (IOM) estimated that 18.314 Americans aged between 25 and 64 years die annually because of lack of health insurance, comparable to deaths because of diabetes, stroke, or homicide in 2001 among persons aged 25 to 64 years.4 The IOM estimate was largely based on a single study by Franks et al.5 However, these data are now more than 20 years old; both medical therapeutics and the demography of the uninsured have changed in the interim.

We analyzed data from the Third National Health and Nutrition Examination Survey (NHANES III). NHANES III collected data on a representative sample of Americans, with vital status follow-up through 2000. Our objective was to evaluate the relationship between uninsurance and death.

METHODS

The National Center for Health Statistics (NCHS) conducted NHANES III between 1988 and 1994. The survey combined an interview, physical examination, and laboratory testing. NHANES III employed a complex sampling design to establish national estimates of disease prevalence among the noninstitutionalized civilian population in the United States.15 Staff performed interviews in English and Spanish.

The NHANES III Linked Mortality File matched NHANES III records to the National Death Index (NDI). The NCHS’s linkage, which uses a probabilistic matching strategy through December 31, 2000, is described elsewhere.16 The NCHS perturbed the file to prevent reidentification of survey participants. Vital status was not altered in this process. The publicly released data yield survival analysis results virtually identical to the restricted-use NHANES III Linked Mortality File.17

In designing our analysis, we hewed closely to Franks’s5 methodology to facilitate interpretation of time trends. We analyzed data for individuals who reported no public source of health insurance at the time of the NHANES III interview. First, we excluded those aged older than 64 years, as virtually all are eligible for Medicare. Of the 33,994 individuals participating, 14,798 were aged between 17 and 64 years at the time of the interview. In keeping with earlier analyses,5–7,13 we also excluded nonelderly Medicare recipients and persons covered by Medicaid and the Department of Veterans Affairs/Civilian Health and Medical Program of the Uniformed Services military insurance (n=2023), as a substantial proportion of those individuals had poor health status as a prerequisite for coverage. Of the 12,775 participants not covered by government insurance, we excluded 663 (5.2%) who lacked information on health insurance. We excluded 974 of the remaining 12,112 who were covered by private insurance or uninsured at the time of the interview because of failure to complete the interview and physical examination. Of the remaining 11,138, we included only the 9,005 with complete baseline data from both the interview and physical examination in our final analysis (Figure 1). Among those with complete insurance data, those with complete interview and examination data were both less likely to be uninsured (16.4% vs 21.6%; P<.001) and less likely to die (3.0% vs 4.5%; P<.001).

NHANES III staff interviewed respondents in their homes regarding demographics (including health insurance). Participants responded to questions about race, ethnicity, income, and household size. The sample design permits estimation for 3 racial/ethnic groups: non-Hispanic White, non-Hispanic Black, and...
Mexican American. The NCHS created a variable that combined family income and the poverty threshold during the year of interview (the poverty income ratio), allowing income to be standardized for family size and compared across the 6 years of data collection.18

NHANES III interviewers also collected data on education, employment, tobacco use, alcohol use, and leisure exercise. We analyzed education dichotomously, comparing those with 12 years or more education to those with less than 12 years. We considered respondents to be unemployed if they were looking for work, laid off, or unemployed. All others, including the employed, students, homemakers, and retirees were considered “not unemployed.” We considered smokers in 3 categories: current smokers, former smokers (those who had smoked more than 200 cigarettes in their lifetime), and non-smokers. We labeled those drinking more than 6 alcoholic beverages per week as regular drinkers. We analyzed exercise in 2 groups: those achieving greater than or equal to 100 metabolic equivalents (METs) per month, versus those achieving less than 100 METs per month.19,20

NHANES III measured participants’ self-perceived health in 5 categories: excellent, very good, good, fair, and poor. We combined the last 2 groups because of small numbers. NHANES physicians performed physical examinations on all participants and provided an impression of overall health status rated as excellent, very good, good, fair, and poor.21 We combined the final 2 groups because of small numbers. We analyzed body mass index (BMI; weight in kilograms divided by height in meters squared) in 4 categories: less than 18.5; 18.5 to 25; more than 25 to less than 30; and 30 and higher.

NHANES III oversampled several groups, including Black persons, Mexican Americans, the very young (aged 2 months to 5 years), and those aged older than 65 years. To account for this and other design variables we used the SUDAAN (version 9.1.3, Research Triangle Institute, Research Triangle Park, NC) SURVIVAL procedure and SAS (version 9.1, SAS Institute, Cary, NC) PROC SURVEYFREQ to perform all analyses. We (as did Franks et al.5) employed unweighted survival analyses and controlled for the variables used in determining the sampling weights (age, gender, and race/ethnicity) because of the inefficiency of weighted regression analyses.22

We analyzed the relation between insurance, demographics, baseline health status variables, and mortality by using \( \chi^2 \) tests. We then used a Cox proportional hazards survival analysis controlling only for age and gender to determine if lack of health insurance predicted mortality. We repeated the analysis of the relationship of insurance to mortality after forcing all covariates in the model. In this Cox proportional hazards analysis, we controlled for gender, age, race/ethnicity (4 categories), income (poverty income ratio), education, current unemployment, smoking status (3 categories), regular alcohol use, self-rated health (4 categories), physician-rated health (4 categories), and BMI (4 categories). We tested for significant interactions between these variables and health insurance status (i.e., \( P < 0.05 \)). We handled tied failure times by using the Efron method.

We performed multiple sensitivity analyses to analyze the robustness of our results.
We developed a propensity score model and controlled for the variables in our previous models (with the exception of health insurance status), as well as marital status; household size; census region; number of overnight visits in hospital in past 12 months; number of visits to a physician in past 12 months; limitations in work or activities; job or housework changes or job cessation because of a disability or health problem; and number of self-reported chronic diseases, including emphysema, prior nonskin malignancy, stroke, congestive heart failure, hypertension, diabetes, or hypercholesterolemia. Next, we included the propensity score in the multivariable model with the indicator for insurance status. In addition, we tested for the effect of including those covered by Medicaid by using our original Cox model and the propensity score adjusted analysis. In a subsidiary analysis, we excluded employment and self- and physician-rated health, as these covariates may be a result of limited access to health care because of uninsurance.

To facilitate interpretation of our hazard ratio, we first replicated the calculation in the IOM report to estimate the number of US adults who die annually because of lack of health insurance. This approach applies the overall hazard ratio to 9-year age strata and sums these figures to arrive at an annual number of deaths attributable to lack of health insurance. We then recalculated this figure by using the slightly different approach utilized by the Urban Institute, which does not age-stratify when calculating total mortality. We believe this approach to be more accurate than that used to produce the IOM estimate, as it calculates mortality from the entire age range that the hazard ratio was calculated from, as opposed to calculating mortality over 10-year age strata.23

RESULTS

We display baseline characteristics of the sample in Table 1; 9004 individuals contributed 80,657 person-years of follow-up time between 1988 and 2000. Of these, 16.2% (95% confidence interval [CI]=14.1%, 18.2%) were uninsured at the time of interview.
Uninsurance was associated with younger age, minority race/ethnicity, unemployment, smoking, exercise (less than 100 METs per month), self-rated health, and lower levels of education and income (5<.001 for all comparisons). Regular alcohol use and physician-rated health were also associated with higher rates of uninsurance (5<.05 for both comparisons).

By the end of follow-up in 2000, 351 individuals, or 3.1% (95% CI = 2.5%, 3.7%) of the sample, had died (Table 1). Significant bivariate predictors of mortality included male gender (5=.04), age (5<.001), minority race/ethnicity (5<.001), less than 12 years of education (5=.008), unemployment (5=.02), smoking (5<.001), regular alcohol use (5=.04), worse self-rated health status (5<.001), and worse physician-rated health status (5<.001).

In the model adjusted only for age and gender, lack of health insurance was significantly associated with mortality (hazard ratio [HR] = 1.80; 95% CI = 1.44, 2.26). In subsequent models adjusted for gender, age, race/ethnicity, poverty income ratio, education, unemployment, smoking, regular alcohol use, self-rated health, physician-rated health, and BMI, lack of health insurance significantly increased the risk of mortality (HR = 1.40; 95% CI = 1.06, 1.84; Table 2). We detected no significant interactions between lack of health insurance and any other variables. Our sensitivity analyses yielded substantially similar estimates.

Replicating the methods of the IOM panel with updated census data,24,25 and this hazard ratio, we calculated 27,424 deaths among Americans aged 25 to 64 years in 2000 associated with lack of health insurance. Applying this hazard ratio to census data from 2005,26 and including all persons aged 18 to 64 years yields an estimated 35,327 deaths annually among the nonelderly associated with lack of health insurance. When we repeated this approach without age stratification, (thought by investigators at the Urban Institute to be an overly conservative approach)23 we calculated approximately 44,789 deaths among Americans aged 18 to 64 years in 2005 associated with lack of health insurance.

### DISCUSSION

The uninsured are more likely to die than the privately insured. We used a nationally representative data set to update the oft-cited study by Franks et al. and demonstrate the persistence of increased mortality attributable to uninsurance. Our findings are in accord with earlier research showing that lack of health insurance increases the likelihood of death in select illnesses and populations.5–7,13

Our estimate for annual deaths attributable to uninsurance among working-age Americans is more than 140% larger than the IOM’s earlier figure.23

By using methodologies similar to those used in the 1993 study, we found that being uninsured is associated with a similar hazard for mortality (1.40 for our study vs. 1.25 for the 1993 study). Although the NHANES I study methodology and population were similar to those used in NHANES III, differences exist. The population analyzed in the original study was older on average than were participants in our sample (22.8% vs. 55.6% aged 34 years or younger). The maximum length of follow-up was less (16 years vs. 12 years), and the earlier analysis was limited to White and Black persons, whereas the present study also includes Mexican Americans.

The relative youthfulness and shorter follow-up in our study population would be expected to reduce our power to detect an elevated risk of death. In addition, if gaining Medicare reduces the effect of uninsurance on mortality, then the younger age and shorter length of follow-up in our study might strengthen the association between uninsurance and mortality compared with the earlier study. It is less clear how the differences in the racial and ethnic make-up of our study population would affect our ability to detect difference in risk of death. In fact, the increased likelihood of uninsurance among Mexican Americans who were nonetheless no more likely to die than non-Hispanic Whites might also be expected to reduce our power compared with the earlier study.

The original analysis confirmed vital status by review of decedents’ death certificates. The NCHS had developed a probabilistic matching strategy to establish vital status. A subsample underwent death certificate review and verification; 98.7% were found to be correctly classified following this review.16 Again, it is not clear how any misclassification would bias our results. Moreover, Congress extended Medicare coverage in 1972 to 2 nonelderly groups: the long-term disabled and those with end-stage renal disease.27 So, although both studies excluded Medicare enrollees, only ours entirely excluded disabled nonelderly adults who are at particularly high risk of death.

**Table 1—Continued**

<table>
<thead>
<tr>
<th>Physician-rated health on examination</th>
<th>Excellent</th>
<th>Good</th>
<th>Fair or poor</th>
<th>Measured BMI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4627 (54.2)</td>
<td>16.8 (1.2)</td>
<td>1.8 (0.3)</td>
<td>&lt; 18.5</td>
</tr>
<tr>
<td></td>
<td>2179 (24.4)</td>
<td>13.3 (1.2)</td>
<td>2.6 (0.5)</td>
<td>18.5–&lt; 30</td>
</tr>
<tr>
<td></td>
<td>1858 (18.4)</td>
<td>17.2 (1.4)</td>
<td>4.9 (0.7)</td>
<td>&gt; 25–&lt; 30</td>
</tr>
<tr>
<td></td>
<td>340 (3.0)</td>
<td>21.7 (4.8)</td>
<td>19.0 (2.6)</td>
<td>≥ 30</td>
</tr>
</tbody>
</table>

Notes. BMI = body mass index (weight in kg divided by height in meters squared); METs = metabolic equivalents; NHANES = National Health and Nutrition Examination Survey.

TABLE 2—Adjusted Hazards for Mortality Among US Adults Aged 17 to 64 Years: NHANES III, 1988–2000

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Hazards Ratio (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inscription status</td>
<td></td>
</tr>
<tr>
<td>Privately insured(^a) (Ref)</td>
<td>1.00</td>
</tr>
<tr>
<td>Uninsured</td>
<td>1.40 (1.06, 1.84)</td>
</tr>
<tr>
<td>Age(^b)</td>
<td>1.06 (1.05, 1.07)</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
</tr>
<tr>
<td>Female (Ref)</td>
<td>1.00</td>
</tr>
<tr>
<td>Male</td>
<td>1.37 (1.13, 1.68)</td>
</tr>
<tr>
<td>Race/ethnicity</td>
<td></td>
</tr>
<tr>
<td>Non-Hispanic White (Ref)</td>
<td>1.00</td>
</tr>
<tr>
<td>Non-Hispanic Black</td>
<td>1.32 (0.98, 1.79)</td>
</tr>
<tr>
<td>Mexican American</td>
<td>0.88 (0.64, 1.19)</td>
</tr>
<tr>
<td>Other</td>
<td>0.46 (0.24, 0.90)</td>
</tr>
<tr>
<td>Exercise, METs/mo</td>
<td></td>
</tr>
<tr>
<td>≥ 100 (Ref)</td>
<td>1.00</td>
</tr>
<tr>
<td>&lt; 100</td>
<td>1.05 (0.80, 1.38)</td>
</tr>
<tr>
<td>Smoking status</td>
<td></td>
</tr>
<tr>
<td>Nonsmoker (Ref)</td>
<td>1.00</td>
</tr>
<tr>
<td>Current smoker</td>
<td>2.02 (1.43, 2.85)</td>
</tr>
<tr>
<td>Former smoker(^c)</td>
<td>1.42 (1.09, 1.85)</td>
</tr>
<tr>
<td>Drinking status, alcoholic drinks/wk</td>
<td></td>
</tr>
<tr>
<td>&lt; 6 (Ref)</td>
<td>1.00</td>
</tr>
<tr>
<td>≥ 6</td>
<td>1.38 (0.99, 1.92)</td>
</tr>
<tr>
<td>Education, y</td>
<td></td>
</tr>
<tr>
<td>≥ 12 (Ref)</td>
<td>1.00</td>
</tr>
<tr>
<td>&lt; 12</td>
<td>0.98 (0.75, 1.27)</td>
</tr>
<tr>
<td>Employment</td>
<td></td>
</tr>
<tr>
<td>Not unemployed(^d) (Ref)</td>
<td>1.00</td>
</tr>
<tr>
<td>Unemployed</td>
<td>1.40 (0.92, 2.14)</td>
</tr>
<tr>
<td>Self-rated health</td>
<td></td>
</tr>
<tr>
<td>Excellent (Ref)</td>
<td>1.00</td>
</tr>
<tr>
<td>Very good</td>
<td>0.67 (0.42, 1.09)</td>
</tr>
<tr>
<td>Good</td>
<td>1.27 (0.84, 1.90)</td>
</tr>
<tr>
<td>Fair or poor</td>
<td>2.26 (1.40, 3.64)</td>
</tr>
<tr>
<td>Physician-rated health</td>
<td></td>
</tr>
<tr>
<td>Excellent (Ref)</td>
<td>1.00</td>
</tr>
<tr>
<td>Very good</td>
<td>0.99 (0.77, 1.27)</td>
</tr>
<tr>
<td>Good</td>
<td>1.17 (0.90, 1.52)</td>
</tr>
<tr>
<td>Fair or poor</td>
<td>3.22 (2.26, 4.58)</td>
</tr>
<tr>
<td>Measured BMI</td>
<td></td>
</tr>
<tr>
<td>&lt; 18.5</td>
<td>1.26 (0.69, 2.29)</td>
</tr>
<tr>
<td>18.5–25 (Ref)</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Continued

TABLE 2—Continued

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Hazards Ratio (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt; 25–&lt; 30</td>
<td>0.87 (0.66, 1.15)</td>
</tr>
<tr>
<td>≥ 30</td>
<td>0.89 (0.69, 1.15)</td>
</tr>
<tr>
<td>Poverty income ratio(^e)</td>
<td>1.03 (0.95, 1.12)</td>
</tr>
</tbody>
</table>

Notes. BMI = body mass index (weight in kg divided by height in meters squared); CI = confidence interval; METs = metabolic equivalents.
\(^a\)For those with complete data for all characteristics; excludes those covered by any government insurance.
\(^b\)Hazard ratio reflects risk for every 1-year increase in age.
\(^c\)Smoked more than 200 cigarettes in lifetime.
\(^d\)Looking for work, laid off, or unemployed.
\(^e\)Combines family income, poverty threshold, and year of survey to allow analysis of income data across the 6 years of NHANES III; less than 1 indicates less than the poverty threshold. Entered into regression model as a continuous variable. Hazard ratio represents change for every 1 unit increase in the poverty income ratio.

The mechanisms by which health insurance affects health have been extensively studied. Indeed, the IOM issued an extensive report summarizing this evidence. The IOM identified mechanisms by which insurance improves health: getting care when needed, having a regular source of care, and continuity of coverage.

The uninsured are more likely to go without needed care than the insured. For instance, Lurie et al. demonstrated that among a medically indigent population in California, loss of government-sponsored insurance was associated with decreased use of physician services and worsening control of hypertension. The uninsured are also more likely to visit the emergency department and be admitted to the hospital for ambulatory care sensitive conditions, suggesting that preventable illnesses are a consequence of uninsurance.

Thechronically ill uninsured are also less likely to have a usual source of medical care, decreasing their likelihood of receiving preventative and primary care. Discontinuity of insurance is also harmful; those intermittently uninsured are more likely to die than the insured.

All of these factors likely play a role in the decline in health among middle-aged uninsured persons detected by Baker et al. This trend appears to reverse at age 65, when the majority gains access to Medicare coverage. Other studies suggest that extending health insurance not only improves health, but also may be cost effective.

Limitations

Our study has several limitations. NHANES III assessed health insurance at a single point in time and did not validate self-reported insurance status. We were unable to measure the effect of gaining or losing coverage after the interview. Point-in-time uninsurance is associated with subsequent uninsurance. Intermittent insurance coverage is common and accelerates the decline in health among middle-aged persons. Among the near-elderly, point-in-time uninsurance was associated with significant decline in overall health relative to those with private insurance. Earlier population-based surveys that did validate insurance status found that between 7% and 11% of those initially recorded as being uninsured were misclassified. If present, such misclassification might dilute the true effect of uninsurance in our sample. We excluded 29.5% of the sample because of missing data. These individuals were more likely to be uninsured and to die, which might also bias our estimate toward the null.

We have no information about duration of insurance coverage from this survey. Further, we have no data regarding cost sharing (out-of-pocket expenses) among the insured; cost sharing worsened blood pressure control among the poor in the RAND Health Insurance Experiment, and was associated with decreased use of essential medications, and increased rates of emergency department use and adverse events in a random sample of elderly and poor Canadians.

Unmeasured characteristics (i.e., that individuals who place less value on health eschew both health insurance and healthy behaviors) might offer an alternative explanation for our findings. However, our analysis controlled for tobacco and alcohol use, along with obesity and exercise habits. In addition, research has found that more than 90% of nonelderly adults without insurance cite cost or lack of employer-sponsored coverage as reasons for being uninsured, whereas only 1% percent report “not needing” insurance. In fact, the variables included in our main survival analysis may inappropriately diminish the relationship between
insurance and death. For example, poor physician-rated health, poor self-rated health, and unemployment may result from medically preventable conditions. Indeed, earlier analyses suggest that the true effect of uninsurance is likely larger than that measured in multivariate models. In addition, Hadley found that accounting for endogeneity bias by using an instrumental variable increases the protective effect of health insurance on mortality.

Conclusions

Lack of health insurance is associated with as many as 44,789 deaths per year in the United States, more than those caused by kidney disease (n = 42,868). The increased risk of death attributable to uninsurance suggests that alternative measures of access to medical care for the uninsured, such as community health centers, do not provide the protection of private health insurance. Despite widespread acknowledgment that enacting universal coverage would be life saving, doing so remains politically thorny. Now that health reform is again on the political agenda, health professionals have the opportunity to advocate universal coverage.

References


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This article was accepted on March 16, 2009.

Contributors

A.P. Wilper designed the study, planned the analysis, performed statistical analysis and data management, and interpreted the analysis. A.P. Wilper, S. Woolhandler, and D.U. Himmelstein drafted the article. K.E. Lasser, D. U. Himmelstein drafted the article. K. E. Lasser, D. H. Bor performed critical revisions of the article. S. Woolhandler supervised all aspects of the study design, analysis planning, interpretation, and article preparation.

Acknowledgments

A.P. Wilper was supported by a Health Resources and Service Administration National Research Service Award (ST32 HP110011).

Human Participant Protection

The institutional review board of Cambridge Health Alliance deemed this study exempt from formal review.
Part 2

Our health care system is broken

Talking point 2: Our patients are going broke.

Medical bills contribute to more than 60 percent of all bankruptcies. Three-fourths of those bankrupted had health insurance at the time they got sick.


Medical Bankruptcy in the United States, 2007: Results of a National Study

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Department of Medicine, Cambridge Hospital/Harvard Medical School, Cambridge, Mass; Department of Sociology, Ohio University, Athens; and Harvard Law School, Cambridge, Mass.

ABSTRACT

BACKGROUND: Our 2001 study in 5 states found that medical problems contributed to at least 46.2% of all bankruptcies. Since then, health costs and the numbers of un- and underinsured have increased, and bankruptcy laws have tightened.

METHODS: We surveyed a random national sample of 2314 bankruptcy filers in 2007, abstracted their court records, and interviewed 1032 of them. We designated bankruptcies as "medical" based on debtors' stated reasons for filing, income loss due to illness, and the magnitude of their medical debts.

RESULTS: Using a conservative definition, 62.1% of all bankruptcies in 2007 were medical; 92% of these medical debtors had medical debts over $5000, or 10% of pretax family income. The rest met criteria for medical bankruptcy because they had lost significant income due to illness or mortgaged a home to pay medical bills. Most medical debtors were well educated, owned homes, and had middle-class occupations. Three quarters had health insurance. Using identical definitions in 2001 and 2007, the share of bankruptcies attributable to medical problems rose by 49.6%. In logistic regression analysis controlling for demographic factors, the odds that a bankruptcy had a medical cause was 2.38-fold higher in 2007 than in 2001.

CONCLUSIONS: Illness and medical bills contribute to a large and increasing share of US bankruptcies.

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KEYWORDS: Bankruptcy; Health care costs; Health economics

As recently as 1981, only 8% of families filing for bankruptcy did so in the aftermath of a serious medical problem. By contrast, our 2001 study in 5 states found that illness or medical bills contributed to about half of bankruptcies.

Since then, the number of un- and underinsured Americans has grown; health costs have increased; and Congress tightened the bankruptcy laws.

Here we report the first-ever national random-sample survey of bankruptcy filers.

METHODS

We used 3 data sources: questionnaires mailed to debtors immediately after bankruptcy filing; court records; and telephone interviews with a sub-sample of debtors.

Sample Design

Between January 25 and April 11, 2007, we obtained from Automated Access to Court Electronic Records, a list of all 118,308 bankruptcy petitions filed in the US. We excluded filings in Guam and Puerto Rico, nonpersonal bankruptcies, and cases missing a name or address. Within 2 weeks of their filings, we mailed introductory letters to 5251 randomly selected debtors; 275 were returned as undeliverable. We then mailed self-administered questionnaires to the 4976 debtors with valid addresses; 2314 (46.5%) were completed and returned; 124 were returned incomplete (2.5%); and 83 (1.7%) declined to participate; 2455 (49.3% of those with valid addresses) did not respond.

We compared court records (described below) of respondents with a random sample of 99 nonrespondents. Nonre-
spondents resembled respondents in income, assets, debts, net worth, market value of homes, and history of prior bankruptcy.

**Questionnaire**

Introductory letters described the study and offered debtors the option of obtaining a Spanish-language version of the questionnaire. The questionnaire and $2 were mailed a few days later. Nonrespondents received replacement questionnaires, another $2, and were invited to respond via telephone or on-line. Subsequently, we offered nonrespondents $50 to complete the questionnaire.

The questionnaire asked about demographics, health insurance, and gaps in coverage, occupation, employment, housing, and efforts to cope financially before filing. It also asked about specific reasons for filing for bankruptcy; the range of out-of-pocket medical expense (none, $1-$999, $1000-$5000, or >$5000); loss of work-related income; and borrowing to pay medical bills. Finally, it asked respondents if, for $50, they would be willing to complete a follow-up interview.

**Court Records**

We obtained the public bankruptcy court records of respondents and the sample of nonrespondents from the federal court’s electronic filing system. Research assistants (mainly law students) abstracted each record.

The court records included the chapter of filing, income, assets, and debts outstanding at the time of filing. These records indicate the creditor to whom money is owed, but not why the debt was incurred.

**Telephone Interviews**

There were 2314 debtors who completed questionnaires, 2007 of whom were willing to be interviewed. By February 2008, research assistants had completed telephone interviews (in English or Spanish) with 1032 of them; 69 debtors no longer wished to be interviewed. We were unable to reach 906.

Interviewers collected additional detail about employment, finances, housing, borrowing to pay medical bills, and whether medical bills or income loss due to illness had contributed to their bankruptcy (questions we used to verify written questionnaire responses from the entire sample of 2314 debtors).

The 1032 telephone interviews identified 639 patients (debtors or dependents) whose health problems contributed to bankruptcy; details about medical expenses, health insurance, and diagnoses were obtained. Two physicians grouped diagnoses into 14 categories.

Telephone survey participants resembled other respondents on most financial and demographic characteristics. They were slightly older and better educated.

**Data Analysis**

We used data from the questionnaires and court records to analyze demographics, health insurance coverage at the time of filing, and gaps in coverage.

The questionnaires were the basis for our 2001-2007 time trend analysis. For this analysis, we replicated the most conservative definition employed in the 2001 study, which designated as “medically bankrupt” debtors citing illness or medical bills as a specific reason for bankruptcy; OR reporting uncovered medical bills >$1000 in the past 2 years; OR who lost at least 2 weeks of work-related income due to illness/injury; OR who mortgaged a home to pay medical bills. Debtors who gave no answers regarding reasons for their bankruptcy were excluded from analyses.

For all other analyses (ie, those not reporting time trends) we adopted a definition of medical bankruptcy that utilizes the more detailed 2007 data. We altered the 2001 criteria to include debtors who had been forced to quit work due to illness or injury. We also reconsidered the question of how large out-of-pocket medical expenses should be before those debts should be considered contributors to the family’s bankruptcy. Although we needed to use the threshold of $1000 in out-of-pocket medical bills for consistency in the time trend analyses, we adopted a more conservative threshold—$5000 or 10% of household income—for all other analyses. Adopting these more conservative criteria reduced the estimate of the proportion of bankruptcies due to illness or medical bills by 7 percentage points.

To arrive at nationally representative estimates, we weighted the data to adjust for the slight underrepresentation of respondents who filed under Chapter 13 (bankruptcies with repayment plans). In calculating mean out-of-pocket medical expenses from our telephone interviews, we trimmed outliers at $100,000.

Chi-squared and 2-tailed t-tests were used for univariate analyses. We used forward stepwise logistic regression analysis on the 2007 cohort to assess predictors of medical bankruptcy and predictors of home loss or foreclosure among homeowners. Finally, we performed logistic regression using the combined 2001 and 2007 cohorts to examine whether the odds of a bankruptcy being medical were higher in 2007 than in 2001, after controlling for demographics, income, and insurance status. SAS Version 9.1 (SAS Institute Inc., Cary, NC) was used for all analyses.

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**CLINICAL SIGNIFICANCE**

- 62.1% of all bankruptcies have a medical cause.
- Most medical debtors were well educated and middle class; three quarters had health insurance.
- The share of bankruptcies attributable to medical problems rose by 50% between 2001 and 2007.
Human subject committees at Harvard Law School and The Cambridge Health Alliance approved the project.

RESULTS

The demographic characteristics of our sample are shown in Table 1. Most debtors were middle aged, middle class (by occupational prestige), and had gone to college. Their modest incomes reflect the financial setbacks common in the peri-bankruptcy period. Two thirds were homeowners. Compared with other debtors, medical debtors had slightly lower incomes, educational attainment, and occupational prestige scores; more were married and fewer were employed (reflecting more disability). Medical debtors were older and had larger families. Although similar proportions were homeowners, medical debtors’ homes had 11% lower market value. The average net worth was similar (and negative) for medical and nonmedical debtors ($44,622 vs $37,650, P = .05).

Medical Causes of Bankruptcy

Illness or medical bills contributed to 62.1% of all bankruptcies in 2007 (Table 2).

Unaffordable medical bills and income shortfalls due to illness were common; 57.1% of the entire sample (92% of the medically bankrupt) had high medical bills, proportions that did not vary by insurance status; 5.7% of homeowners had mortgaged their homes to pay medical bills; 40.3% of the entire sample had lost income due to illness; 95% of the lost-income debtors also had high medical bills.

Data from the detailed telephone survey yielded confirmatory results. When asked about problems that contributed very much or somewhat to their bankruptcy, 41.8% of interviewees specifically identified a health problem, 54.9% cited medical or drug costs, and 37.8% blamed income loss due to illness. Overall, 68.8% cited at least one of these medical causes. An additional 6.8% had recently borrowed money to pay medical bills.

Insurance Status of Debtors and Dependents

Less than one quarter of debtors—whether medical or nonmedical—were uninsured when they filed for bankruptcy; an additional 7% had uninsured family members (Table 3). Medically bankrupted families, however, had more often experienced a lapse in coverage during the 2 years before filing (40.0% vs 34.1%, P = .005).

Table 1 Demographic Characteristics of 2314 Bankruptcy Filers and Comparison of Medical and Nonmedical Filers, 2007*

|                                      | All Bankruptcies | Medical Bankruptcies | Nonmedical Bankruptcies | P Value
|--------------------------------------|------------------|----------------------|-------------------------|---------
| Mean age                             | 44.4 years       | 44.9 years           | 43.3 years              | .01     |
| Debtor or spouse/partner male        | 44.5%            | 44.9%                | 44.3%                   | NS      |
| Married                              | 43.9%            | 46.3%                | 40.1%                   | .02     |
| Mean family size—debtors + dependents| 2.71             | 2.79                 | 2.63                    | .02     |
| Attended college                     | 61.9%            | 60.3%                | 65.8%                   | .02     |
| Homeowner or lost home within 5 years| 66.7%            | 66.4%                | 67.8%                   | NS      |
| Current homeowner                    | 52.3%            | 52.0%                | 53.2%                   | NS      |
| Occupational prestige score >20     | 87.3%            | 86.1%                | 89.8%                   | .01     |
| Mean (median) monthly household income at time of bankruptcy filing | $2676 ($2299) | $2586 ($2225) | $2851 ($2478) | .002 |
| Debtor or spouse/partner currently employed | 79.2% | 75.5% | 85.0% | .001 |
| Debtor or spouse/partner active duty military or veteran | 19.4% | 20.1% | 18.4% | NS |
| Market value of home (mean)          | $147,776         | $141,861             | $159,145                | .03     |
| Mean net worth (assets—debts)        | −$41,474         | −$44,622             | −$37,650                | NS      |

*Bankruptcies meeting at least one of the following criteria: illness, injury or medical bills listed as specific reason for filing OR uncovered medical bills >$5000 or >10% of annual family income OR, lost ≥2 weeks of work-related income due to illness/injury, OR depleted home equity to pay medical bills.

Table 2 Medical Causes of Bankruptcy, 2007*

<table>
<thead>
<tr>
<th></th>
<th>Percent of All Bankruptcies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debtor said medical bills were reason for bankruptcy</td>
<td>29.0%</td>
</tr>
<tr>
<td>Medical bills &gt;$5000 or &gt;10% of annual family income</td>
<td>34.7%</td>
</tr>
<tr>
<td>Mortgaged home to pay medical bills</td>
<td>5.7%</td>
</tr>
<tr>
<td>Medical bill problems (any of above 3)</td>
<td>57.1%</td>
</tr>
<tr>
<td>Debtor or spouse lost ≥2 weeks of income due to illness or became completely disabled</td>
<td>38.2%</td>
</tr>
<tr>
<td>Debtor or spouse lost ≥2 weeks of income to care for ill family member</td>
<td>6.8%</td>
</tr>
<tr>
<td>Income loss due to illness (either of above 2)</td>
<td>40.3%</td>
</tr>
<tr>
<td>Debtor said medical problem of self or spouse was reason for bankruptcy</td>
<td>32.1%</td>
</tr>
<tr>
<td>Debtor said medical problem of other family member was reason for bankruptcy</td>
<td>10.8%</td>
</tr>
<tr>
<td>Any of above</td>
<td>62.1%</td>
</tr>
</tbody>
</table>

*Percentage based on recent homeowners rather than all debtors.
In multivariate analysis, being uninsured at filing did not predict a medical cause of bankruptcy, while a gap in coverage did (odds ratio \([OR] = 1.35, P = .002\)). Other predictors included: older age \((OR = 1.016/year, P = .0001)\), married \((OR = 1.59, P = .0001)\), female \((OR = 1.34, P = .002)\), larger household \((OR = 1.97/household member, P = .01)\), and lower income quartile \((OR = 1.30, P = .0001)\).

Medical debtors’ court records identified more debt owed directly to doctors and hospitals than did nonmedical debtors’, a mean of $4988 vs $256, respectively \((P < .0001)\). Medical debtors with coverage gaps owed providers a mean of $8338, vs $2740 \((P < .0001)\) for medical debtors with continuous coverage. Nonmedical debtors had few medical debts, averaging under $300 regardless of insurance status. (Medical debts financed through credit cards or other borrowing, or owed to collection agencies are not included because they cannot be identified through court records.)

**Patients Whose Illness Contributed to Bankruptcy**

Phone interviews identified 639 patients whose illness contributed to bankruptcy: the debtor or spouse in 77.9% of cases; a child in 14.6%; and a parent, sibling or other adult in 7.5%. At illness onset, 77.9% were insured: 60.3% had private insurance as their primary coverage; 10.2% had Medicare; 5.4% had Medicaid; and 2% had Veterans Affairs/military coverage. Few of the uninsured lacked coverage because of a preexisting condition (2.8%) or belief that coverage was unnecessary (0.3%); nearly all cited economic reasons.

By the time of bankruptcy, the proportion of patients with private coverage had fallen to 54.1%, while the percentage with Medicare and Medicaid had increased to 16.4% and 9.9%, respectively. The proportion whose employers contributed to coverage decreased from 43.2% to 36.6%.

Out-of-pocket medical costs averaged $17,943 for all medically bankrupt families: $26,971 for uninsured patients, $17,749 for those with private insurance at the outset, $14,633 for those with Medicaid, $12,021 for those with Medicare, and $6545 for those with Veterans Affairs/military coverage. For patients who initially had private coverage but lost it, the family’s out-of-pocket expenses averaged $22,568.

Among common diagnoses, nonstroke neurologic illnesses such as multiple sclerosis were associated with the highest out-of-pocket expenditures (mean $34,167), followed by diabetes ($26,971), injuries ($25,096), stroke ($23,380), mental illnesses ($23,178), and heart disease ($21,955).

Hospital bills were the largest single out-of-pocket expense for 48.0% of patients, prescription drugs for 18.6%, doctors’ bills for 15.1%, and premiums for 4.1%. The remainder cited expenses such as medical equipment and nursing homes. While hospital costs loomed largest for all diagnostic groups, for about one third of patients with pulmonary, cardiac, or psychiatric illnesses, prescription drugs were the largest expense.

Our telephone interviews indicated the severity of job problems caused by illness. In 37.9% of patients’ families, someone had lost or quit a job because of the medical event; 24.4% had been fired, and 37.1% subsequently regained employment. In 19.9% of families suffering a job loss, the job loser was a caregiver.

**Changes in Medical Bankruptcy, 2001 to 2007**

In our 2007 study, 69.1% of the debtors met the legacy definition of medical bankruptcy employed in our 2001 study, a 22.9 percentage point absolute increase (49.6% relative increase) from 2001, when 46.2% met this definition \((P < .0001)\). Inflation, which might edge families over our $1000 medical debt threshold, did not account for this change. An analysis that used all criteria except the size of medical debts found a 48.7% relative increase. An analysis limited to the 5 states in our 2001 study yielded virtually identical findings.

In multivariate analysis, a medical cause of bankruptcy was more likely in 2007 than in 2001 \((OR = 2.38, P < .0001)\) (Table 4).

**DISCUSSION**

In 2007, before the current economic downturn, an American family filed for bankruptcy in the aftermath of illness every 90 seconds; three quarters of them were insured. Since 2001, the proportion of all bankruptcies attributable to medical problems has increased by 50%. Nearly two thirds of all bankruptcies are now linked to illness.

How did medical problems propel so many middle-class, insured Americans toward bankruptcy? For 92% of the medically bankrupt, high medical bills directly contributed to their bankruptcy. Many families with continuous coverage found themselves under-insured, responsible for thousands of dollars in out-of-pocket costs. Others had private coverage but lost it when they became too sick to work. Nationally, a quarter of firms cancel coverage immediately when an employee suffers a disabling illness; another quar-

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Table 3  
**Health Insurance Status of Debtor Households With and Without Medical Causes of Bankruptcy**

<table>
<thead>
<tr>
<th></th>
<th>Medical Bankruptcy</th>
<th>Nonmedical Bankruptcy</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debtor or a dependent uninsured at time of bankruptcy filing</td>
<td>30.8%</td>
<td>30.7%</td>
<td>.93</td>
</tr>
<tr>
<td>Debtor or a dependent had a lapse in coverage during 2 years before bankruptcy filing</td>
<td>40.0%</td>
<td>34.1%</td>
<td>.005</td>
</tr>
</tbody>
</table>

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...
ter do so within a year. Income loss due to illness also was common, but nearly always coupled with high medical bills.

The present study and our 2001 analysis provide the only data on large cohorts of bankruptcy filers derived from in-depth surveys. As with any survey, we depend on respondents’ candor. However, we also had independent checks—from court records filed under penalty of perjury—on many responses. Because questionnaires and court records were available for our entire sample, we used them for most calculations. The lowest plausible estimate of the medical bankruptcy rate from these sources is 44.4%—the proportion who directly said that either illness or medical bills were a reason for bankruptcy. But many others gave reasons such as “aggressive collection efforts” or “lost income due to illness” and had large medical debts. Indeed, detailed telephone interview data available for 1032 debtors revealed an even higher rate of medical bankruptcy than our 62.1%

Bankruptcy Abuse Prevention and Consumer Protection Act (BAPCPA)’s effects appear nonselective. Current filers differ from past ones mainly in having struggled longer with their debts. New restrictions fall equally on medical and nonmedical bankruptcies, with no preferences for medical debts or sick debtors. It is implausible to ascribe the growing predominance of medical causes of bankruptcy to BAPCPA.

Conversely, there is ample evidence that the financial burden of illness is increasing. The number of under-insured increased from 15.6 million in 2003 to 25.2 million in 2007. Of low- and middle-income households with credit card balances, 29% use credit card borrowing to pay off medical expenses over time. Collection agencies contacted 37.2 million Americans about medical bills in 2003. Between 2005 and 2007, the proportion of nonelderly adults reporting medical debts or problems paying medical bills rose from 34% to 41%.

Adding to Other Studies
We have reviewed elsewhere the older studies on medical bankruptcy. Most rely exclusively on court records where many medical debts are invisible, disguised as credit card debt or mortgages. In our cohort, most medical debtors had charged unaffordable medical care to credit cards.

Similarly, debts turned over to collection agencies by doctors or hospitals may be unrecognized on court records. Moreover, income loss due to illness cannot be identified. In short, even though such studies find substantial rates of medical bankruptcy, estimates based solely on court records underestimate medical bankruptcies.

Population-based studies also are problematic because many debtors are unwilling to admit to filing. Thus, a study based on the Panel Survey of Income Dynamics could identify only 74 bankruptcies (0.4% of respondents), half the actual filing rate among the national population from which the sample was drawn. A few studies employed novel methods to analyze medical bankruptcy. One found a high bankruptcy filing rate in a cohort of patients with serious neurologic injuries. A survey of cancer patients documented a 3% bankruptcy rate; 7% had taken a second mortgage to pay for treatments. A questionnaire-based study found medical contributors to 61% of Utah bankruptcies; 58% of families seeking help at bankruptcy clinics in upstate New York reported outstanding medical debts.

Medical impoverishment, although common in poor nations, is almost unheard of in wealthy countries other than the US. Most provide a stronger safety net of disability income support. All have some form of national health insurance.

The US health care financing system is broken, and not only for the poor and uninsured. Middle-class families fre-

<table>
<thead>
<tr>
<th>Table 4 Multivariate Predictors of Medical Causes of Bankruptcy, 2001 and 2007 Combined</th>
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<tbody>
<tr>
<td>Odds Ratio</td>
</tr>
<tr>
<td>Age</td>
</tr>
<tr>
<td>Married</td>
</tr>
<tr>
<td>Own home now or in past 5 years</td>
</tr>
<tr>
<td>All family members insured at time of filing</td>
</tr>
<tr>
<td>Gap in health insurance coverage for any family member within past 2 years</td>
</tr>
<tr>
<td>Income quartile</td>
</tr>
<tr>
<td>Attended college</td>
</tr>
<tr>
<td>Year of bankruptcy filing, 2007 vs 2001</td>
</tr>
</tbody>
</table>
quently collapse under the strain of a health care system that treats physical wounds, but often inflicts fiscal ones.

ACKNOWLEDGMENTS

Additional support came from Harvard Law School and the American Association of Retired Persons. Professors Melissa Jacoby, Robert Lawless, Angela Littwin, Katherine Porter, John Pottow, and Teresa Sullivan played key roles in the Consumer Bankruptcy Project.

References

1- What is a “medical bankruptcy”?  
A number of medical factors can contribute to a family's financial collapse, including high medical bills or lost time from work. Because different researchers use different definitions, we supplied a detailed analysis of debtors who:  
- Specifically identified medical problem of the debtor or spouse (32.1%) or another family member (10.8%) as a reason for filing bankruptcy.  
- Specifically said medical bills were a reason for bankruptcy (29.0%)  
- Lost two or more weeks of wages because of lost time from work to deal with a medical problem for themselves or a family member (40.3%)  
- Mortgaged their homes to pay medical bills (5.7%)  
- Spent more than $5,000 or 10% of annual household income in out-of-pocket medical bills (34.7%)  

- Total, one or more of the above criteria: 62.1%  

The vast majority (92%) of bankruptcies that we classified as medical had medical bill problems as indicated by: listing medical bills as a specific reason for their bankruptcy; or having medical bills of bills $5,000 or 10% of household income or that forced them to mortgage their home. The remaining 8% whose bankruptcy was classified as “medical” indicated that a medical problem or income loss due to illness was a cause of bankruptcy.

2- Why do only 29% of bankrupt people identify medical bills as a reason for filing bankruptcy, but you say the total percentage of medical bankruptcies is 62.1%?  
Families characterize their problems differently. Someone may mortgage a home to pay for surgery, then be unable to pay off the mortgage, describing the reason for filing bankruptcy as “unable to pay the mortgage.” Similarly, some people explain that they have lost too much time from work when they have taken off to care for a child who has been hospitalized. We believe that multiple ways of asking about medical bankruptcies give the most complete picture, but we publish the breakdown in responses so that any other research or commentator can draw his or her own conclusions.  

Finally, it should be noted that many people who are financially ruined by illness are undoubtedly too ill, too poor or demoralized to pursue formal bankruptcy, and are not counted in our study.

3- What is the impact of health insurance?  
More than three-quarters (78%) of the families that met the criteria for medical bankruptcy had health insurance at the onset of their illness or accident. By comparison, 80% of the non-elderly adult population and 85% of the entire U.S. population had health insurance in 2007. Hence, it appears that health insurance offers only modest protection against medical bankruptcy.

4- Is the problem of medical bankruptcies just because of the recession?  
No. The families in this study filed for bankruptcy between January-April of 2007, before the recession began. Since then, the financial stress on families has grown.

5- Is this a national sample of all families filing for bankruptcy?  
Yes. The sample was drawn from bankruptcy filings across the country.
6- How did you get your information?

We contacted a random sample of all personal bankruptcy filers in the U.S. during the winter of 2007. Written questionnaires were returned by 2,314 debtors, and we also analyzed their bankruptcy court records. We also carried out extensive telephone interviews with 1,032 of these debtors.

Finally, to be sure that the debtors who returned our survey were similar to those who did not, we also analyzed the court records of 99 of the non-respondents. They were almost identical to those who returned the survey in terms of debts, income, assets and other characteristics.

7- What’s the basis for saying that the proportion of bankruptcies that are medical rose by 50% between 2001 and 2007?

In order to compare the medical bankruptcy rates in 2007 and in our 2001 study we had to use the same definitions in both years. Our 2001 study had used a less stringent (“legacy”) definition of medical bankruptcy that included families with more than $1000 in unpaid medical bills. Using this “legacy” definition, the medical bankruptcy rate rose from 46.2% in 2001 to 69.1% in 2007 – a 49.6% increase. The 2001 estimate relied on data collected from bankruptcy filers in five states. Analysis of the 2007 data confirmed that the five states included in the 2001 survey also saw a 50% increase in medical bankruptcies.

8- Would health reform eliminate the problem of medical bankruptcy?

Many debtors described a complex web of problems involving illness, work, and family. Separating medical from other causes of bankruptcy is difficult. Hence, we cannot presume that eliminating the medical antecedents of bankruptcy would have prevented all of the filings we classified as “medical bankruptcies.” The high rate of insurance among the medical bankrupts suggests that any health reform that fails to improve existing private coverage is unlikely to make a major impact on medical bankruptcy. Moreover, our data also highlight the need for improved disability coverage.

9- Why do some others claim that medical bankruptcy rates are much lower?

Ours is the only study based on direct surveys and interviews with a large sample of families filing for bankruptcy. Others have based their findings on bankruptcy court records alone (with no direct surveys or interviews) or on surveys of the general public that inquire about bankruptcy filings. Court records fail to identify medical bankruptcies because many medical bills are charged to credit cards and hence cannot be identified as “medical” in court records. Similarly, when medical providers turn debts over to collection agencies they would not appear as “medical.” Because bankruptcy carries a substantial stigma, about half of all respondents who are bankrupt deny that fact. As a result, surveys of the general public are an unreliable source of information on medical bankruptcy. For these reasons, the only way to accurately assess medical bankruptcy is to directly survey families who file for bankruptcy.
Our health care system is broken

Talking point 3: Money and resources are wasted in our current system.

Administrative costs consume 31 percent of health spending, most of it unnecessary. The U.S. could save enough on administrative costs (almost $400 billion yearly) by switching to a single-payer system.


The U.S. spends more per capita on health care than other nations.

See: OECD Health Data 2011 (excerpted charts).
Costs of Health Care Administration in the United States and Canada

Steffie Woolhandler, M.D., M.P.H., Terry Campbell, M.H.A., and David U. Himmelstein, M.D.

ABSTRACT

BACKGROUND
A decade ago, the administrative costs of health care in the United States greatly exceeded those in Canada. We investigated whether the ascendancy of computerization, managed care, and the adoption of more businesslike approaches to health care have decreased administrative costs.

METHODS
For the United States and Canada, we calculated the administrative costs of health insurers, employers’ health benefit programs, hospitals, practitioners’ offices, nursing homes, and home care agencies in 1999. We analyzed published data, surveys of physicians, employment data, and detailed cost reports filed by hospitals, nursing homes, and home care agencies. In calculating the administrative share of health care spending, we excluded retail pharmacy sales and a few other categories for which data on administrative costs were unavailable. We used census surveys to explore trends over time in administrative employment in health care settings. Costs are reported in U.S. dollars.

RESULTS
In 1999, health administration costs totaled at least $294.3 billion in the United States, or $1,059 per capita, as compared with $307 per capita in Canada. After exclusions, administration accounted for 31.0 percent of health care expenditures in the United States and 16.7 percent of health care expenditures in Canada. Canada’s national health insurance program had overhead of 1.3 percent; the overhead among Canada’s private insurers was higher than that in the United States (13.2 percent vs. 11.7 percent). Providers’ administrative costs were far lower in Canada.

Between 1969 and 1999, the share of the U.S. health care labor force accounted for by administrative workers grew from 18.2 percent to 27.3 percent. In Canada, it grew from 16.0 percent in 1971 to 19.1 percent in 1996. (Both nations’ figures exclude insurance-industry personnel.)

CONCLUSIONS
The gap between U.S. and Canadian spending on health care administration has grown to $752 per capita. A large sum might be saved in the United States if administrative costs could be trimmed by implementing a Canadian-style health care system.
I N 1991, WE REPORTED THAT PEOPLE IN
the United States spent about $450 per capita
on health care administration in 1987, whereas
Canadians spent one third as much.1 Subsequent
studies reached similar conclusions, but all relied on
data from 1991 or before.2-3 In the interim, organiza-
tional and technological changes have revolution-
zation of health care administration. The ascendancy
of managed care and competition has forced provid-
ers to adopt more businesslike approaches. Mergers
between hospitals and between health maintenance
organizations (HMOs) have centralized “back of-
office” tasks. E-mail has displaced regular mail, and
the Internet allows insurers to offer on-line verifica-
tion of applicants’ eligibility, utilization review, and
payment approval.4 By 1999, nearly two thirds of
U.S. health insurance claims were filed electronic-
ally, including 84 percent of Medicare claims.5

Canada’s national health insurance system has
also been subject to technological change and tur-
moil — strident debate over cost controls, the avail-
ability of medical technology, hospital closures, and
the appropriate role of investor-owned providers.
But its organizational structure has changed little.
We evaluated whether the adoption of a more busi-
nesslike attitude, the proliferation of HMOs, and
the automation of billing and clerical tasks have
trimmed administrative costs in the United States
and whether Canada’s administrative parsimony
has persisted in the years since our earlier study.

M E T H O D S

To estimate administrative costs, we sought data
on insurance overhead, employers’ costs to manage
benefits, and the administrative costs of hospitals,
practitioners’ offices, nursing homes, and home

care. Our estimates use 1999 figures, the most re-
cent comprehensive data. We used gross-domes-
tic-product purchasing-power parities6 to convert
Canadian dollars to U.S. dollars, and we used SAS
software for data analyses.7

I N S U R A N C E O V E R H E A D

We obtained figures for insurance overhead and the
administration of government programs from the
Centers for Medicare and Medicaid Services8 and
the Canadian Institute for Health Information.9

E M P L O Y E R S’ C O S T S TO M A N A G E
H E A L T H C A R E B E N E F I T S

For the United States, we used a published estimate
of employers’ spending for health care benefits
consultants and internal administration related to
health care benefits in 1996.10,11 We used this figure
to estimate 1999 costs on the basis of the growth in
health care spending among employers in the pri-

tate sector.12 No comparable figures are available
for Canada. We assumed that employers’ internal
administrative costs plus the costs of consultants
(as a share of employers’ health care spending13)
are the same in Canada as in the United States.

H O S P I T A L A D M I N I S T R A T I O N

For the United States, we calculated the administra-
tive share of hospital costs by analyzing data from
fiscal year 1999 cost reports that 5220 hospitals had
submitted to Medicare by September 30, 2001, us-
ing previously described methods.14,15 For Canada,
we and colleagues at the Canadian Institute for
Health Information analyzed cost data for fiscal
year 1999 (April 1, 1999, through March 31, 2000)
for all Canadian hospitals except those in Quebec
(which use a separate cost-reporting system), using
methods similar to the ones we used to calculate
costs in the United States. When questions arose
about the comparability of expense categories, we
obtained detailed descriptions of the Canadian cat-
egories from Canadian officials and consulted U.S.
Medicare auditors to ascertain where such costs
would be entered on Medicare cost reports. For both
countries, we multiplied the percentage spent on
administrative costs by total hospital spending.8,9

A D M I N I S T R A T I O N A L C O S T S O F P R A C T I C E N E R S

We calculated the administrative costs of U.S. phy-
sicians by adding the value of the physicians’ own
time devoted to administration to estimates of the
share of several categories of office expenses that
are attributable to administrative work. We deter-

mined the proportion of physicians’ work hours de-
voted to billing and administration from a national
survey16 and multiplied this proportion by physi-
cians’ net income before taxes.8,17 We calculated the
costs of administrative work by nurses and other
clinical employees in doctors’ offices by assuming
that they spent the same proportion of their time on
administration as did physicians. We calculated the
value of this time on the basis of total physicians’
revenues8 and survey data on doctors’ payroll costs
from the American Medical Association.17 We at-
tributed all of physicians’ expenses for clerical staff
to administration.17 Although administrative and
clerical workers accounted for 43.8 percent of the
work force in physicians’ offices (unpublished da-
ta), we attributed only one third of office rent and
other expenses (excluding medical machinery and supplies)\textsuperscript{17} to administration and billing. Accounting, legal fees (excluding the cost of malpractice insurance), the costs of outside billing services, and other such costs are subsumed in “other professional expenses,”\textsuperscript{17} half of which we attributed to administration.

To estimate the administrative expenses of dentists (and other nonphysician practitioners), we analyzed data on administrative and clerical employment in practitioners’ offices from the March 2000 Current Population Survey using previously described methods.\textsuperscript{18} Administrative and clerical employees’ share of office wages was 43 percent lower in the case of dentists’ offices and 14 percent lower in the case of other nonphysician practitioners’ offices than those of physicians’ offices. We assumed that the administrative share of the income of dentists and other nonphysician practitioners mirrored these differences.

To calculate administrative costs in Canada, we obtained figures from a Canadian Medical Association survey on the proportion of physicians’ time devoted to administration and practice management\textsuperscript{19} and multiplied this proportion by physicians’ net income before taxes.\textsuperscript{9,20} To calculate the cost of nonphysician staff time, we used figures from Canadian Medical Association surveys of physicians’ expenditures for office staff,\textsuperscript{20,21} which did not distinguish between clinical and administrative staff. We analyzed special 1996 Canadian Census tabulations to determine administrative and clinical workers’ shares of total wages in doctors’ offices.\textsuperscript{18}

We attributed all of the administrative workers’ share to administration and assumed that nonphysician clinical personnel spend the same proportion of their time on administration as did physicians.

To calculate the costs of office rent and similar expenses, we attributed one third of physicians’ office rent, lease, mortgage, and equipment costs\textsuperscript{20,21} to administration and billing. We attributed half of other professional expenses\textsuperscript{20,21} to administration. To calculate the administrative expenses of nonphysician office-based practitioners in Canada, we used the same procedure that we used for the U.S. data and based the analysis on 1996 Canadian Census data.

Nursing Home Administration

No published nationwide data on the administrative costs of U.S. nursing homes are available for 1999, and only Medicare-certified facilities (which are not representative of all nursing homes) file Medicare cost reports. However, California collects cost data from all licensed homes. Therefore, we analyzed 1999 data on 1241 California nursing homes,\textsuperscript{22} grouping expenditures into three broad categories: administrative, clinical, and mixed administrative and clinical. We used methods similar to those employed in our hospital analysis\textsuperscript{14,15} to allocate expenses from the “mixed” category to the clinical and administrative categories. To generate a national estimate, we multiplied the administrative share of expenditures by total nursing home spending.\textsuperscript{8}

For Canada, we and colleagues at the Canadian Institute for Health Information analyzed data for fiscal year 1998 (April 1, 1998, through March 31, 1999) on administrative costs for homes for the aged (excluding Quebec) from Statistics Canada’s Residential Care Facilities Survey, using methods similar to those we used for the U.S. data. We multiplied the share spent for administration by total nursing home expenditures in Canada.\textsuperscript{9}

Administrative Costs of Home Care Agencies

We analyzed data from fiscal year 1999 cost reports that 6633 home health care agencies submitted to Medicare. We excluded agencies reporting implausible administrative costs that were below 0 percent or above 100 percent and then calculated the proportion of expenses classified as “administrative and general.”

For Canada, we obtained data on administrative costs in Ontario; the categories used appeared similar to those used in the U.S. data.\textsuperscript{23} We totaled the administrative costs of Community Care Access Centres,\textsuperscript{24} which contract with home care providers; home care providers (White G, Ontario Association of Community Care Access Centres: personal communication); and provincial government oversight of home care. We multiplied the proportion spent for administration by total home care spending throughout Canada.\textsuperscript{25}

Total Costs of Health Care Administration

To calculate total spending on health care administration, we totaled the administrative costs of all the categories detailed above. In analyzing the administrative share of health care spending, we excluded from both the numerator and the denominator expenditure categories for which data on administrative costs were unavailable: retail pharmacy sales,
medical equipment and supplies, public health, construction, research, and “other,” a heterogeneous category that includes ambulances and implant services. These excluded categories accounted for $261.2 billion, 21.6 percent of U.S. health care expenditures, and $21.0 billion, 27.6 percent of Canadian health care expenditures.

**Trends since 1969**
The analysis for 1999 relied on several sources of data that were not available for earlier years. To assess trends over time, using previously described methods, we analyzed U.S. Census data on employment in health care settings from the March Current Population Survey for every fifth year since 1969 and the Canadian Census for 1971, 1986, and 1996.

**Results**

**Insurance overhead**
In 1999 U.S. private insurers retained $46.9 billion of the $401.2 billion they collected in premiums. Their average overhead (11.7 percent) exceeded that of Medicare (3.6 percent) and Medicaid (6.8 percent). Overall, public and private insurance overhead totaled $72.0 billion — 5.9 percent of the total health care expenditures in the United States, or $259 per capita (Table 1).

The overhead costs of Canada’s provincial insurance plans totaled $311 million (1.3 percent) of the $23.5 billion they spent for physicians and hospital services. An additional $17 million was spent to administer federal government health plans. The overhead of Canadian private insurers averaged 13.2 percent of the $8.4 billion spent for private coverage. Overall, insurance overhead accounted for 1.9 percent of Canadian health care spending, or $47 per capita (Table 1).

**Employers’ costs to manage health benefits**
U.S. employers spent $12.2 billion on internal administrative costs related to health care benefits and $3.7 billion on health care benefits consultants — a total of $15.9 billion, or $57 per capita (Table 1). Canadian employers spent $3.6 billion for private health insurance and $252 million to manage health benefits, or $8 per capita.

**Hospital administration**
The average U.S. hospital devoted 24.3 percent of spending to administration. Hospital administration consumed $87.6 billion, or $315 per capita (Table 1). In Canada, hospital administration cost $3.1 billion — 12.9 percent of hospital spending, or $103 per capita.

**Nursing home administration**
California nursing homes devoted 19.2 percent of revenues to administration in 1999. Nationwide, U.S. nursing homes spent $17.3 billion on administration, or $62 per capita (Table 1). Administration accounted for 12.2 percent ($882 million) of Canadian nursing home expenditures, or $29 per capita.

**Administrative costs of practitioners**
In the United States, administrative tasks consumed 13.5 percent of physicians’ time, valued at $15.5 billion. Physicians spent 8.3 percent of their gross income on clinical employees; the administrative portion (13.5 percent) of compensation of these employees was $3.0 billion. Physicians’ costs for clerical staff averaged 12.3 percent of physicians’ gross income, or $33.1 billion. The one third of physicians’ office rent and expenses attributable to administration represented 4.6 percent of physicians’ gross income, or $12.4 billion. Finally, the half of “other professional expenses” (a category that includes accounting and legal fees) attributable to administration accounted for 3.2 percent of physicians’ income, or $8.6 billion. In total, physicians’ administrative work and costs amounted to $72.6 billion — $261 per capita, or 26.9 percent of physicians’ gross income.

The administrative costs of dentists and of other nonphysician practitioners totaled $8.6 billion and $8.8 billion, respectively. Overall, U.S. practitioners’

---

**Table 1. Costs of Health Care Administration in the United States and Canada, 1999.**

<table>
<thead>
<tr>
<th>Cost Category</th>
<th>Spending per Capita (U.S. $)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>United States</td>
</tr>
<tr>
<td>Insurance overhead</td>
<td>259</td>
</tr>
<tr>
<td>Employers’ costs to manage health benefits</td>
<td>57</td>
</tr>
<tr>
<td>Hospital administration</td>
<td>315</td>
</tr>
<tr>
<td>Nursing home administration</td>
<td>62</td>
</tr>
<tr>
<td>Administrative costs of practitioners</td>
<td>324</td>
</tr>
<tr>
<td>Home care administration</td>
<td>42</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,059</strong></td>
</tr>
</tbody>
</table>
administrative costs amounted to $89.9 billion, or $324 per capita (Table 1).

Canadian physicians devoted 8.4 percent of their professional time to practice management and administration, valued at $592 million. They spent 6.1 percent of their gross income on clinical office staff. The administrative portion (8.4 percent) of compensation of these employees amounted to $53 million. Physicians’ costs for clerical staff averaged 6.9 percent of their gross income, or $716 million. The one third of physicians’ office rent and expenses attributable to administration totaled $193 million. Finally, the 50 percent of “other professional expenses” attributable to administration cost $116 million. In total, physicians’ administrative work and costs amounted to $1.7 billion — $55 per capita, or 16.1 percent of their gross income.

The administrative and billing costs of Canadian dentists and of other nonphysician practitioners totaled $928 million and $660 million, respectively. Overall, the administrative expenses of Canadian practitioners totaled $3.3 billion, or $107 per capita (Table 1).

**ADMINISTRATIVE COSTS OF HOME CARE AGENCIES**

U.S. home care agencies devoted 35.0 percent of total expenditures to administration — $11.6 billion, or $42 per capita (Table 1). Administration accounted for 15.8 percent of Ontario’s home care expenditures. Throughout Canada, home care administration expenses totaled $408 million, or $13 per capita.

**TOTAL COSTS OF HEALTH CARE ADMINISTRATION**

In the United States, health care administration cost $294.3 billion, or $1,059 per capita (Table 1). In Canada, health care administration cost $9.4 billion, or $307 per capita. If the difference of $752 per capita were applied to the 1999 U.S. population, the total excess administrative cost would be $209 billion. After exclusions, administration accounted for 31.0 percent of health care expenditures in the United States, as compared with 16.7 percent of health care expenditures in Canada.

**TRENDS IN ADMINISTRATIVE EMPLOYMENT IN HEALTH CARE**

In the United States, 27.3 percent of the 11.77 million people employed in health care settings in 1999 worked in administrative and clerical occupations (Table 2). This figure excludes 926,000 employees in life or health insurance firms, 724,000 in insurance brokerages, and employees of consulting firms. In 1969, administrative and clerical workers represented 18.2 percent of the health care labor force (Table 2). In Canada, administrative and clerical occupations accounted for 19.1 percent of the health care labor force in 1996, 18.7 percent in 1986, and 16.0 percent in 1971. (These figures exclude insurance personnel). Although the United States employed 12 percent more health personnel per capita than Canada, administrative personnel accounted for three quarters of the difference.

**DISCUSSION**

Administrators are indispensable to modern health care; their tasks include ensuring that supplies are on hand, that records are filed, and that nurses are paid. Many view intensive, sophisticated management as an attractive solution to cost and quality problems; that utilization review, clinical-information systems, and quality-improvement programs should upgrade care seems obvious. However, some regard much of administration as superfluous, born of the quirks of the payment system rather than of clinical needs.

How much administration is optimal? Does the high administrative spending in the United States relative to that in Canada (or to that in the United States 30 years ago) improve care? No studies have directly addressed these questions. Although indirect evidence is sparse, analyses of investor-owned HMOs and hospitals — subgroups of providers...
with relatively high administrative costs — have found that for-profit facilities have neither higher-quality care nor lower costs than not-for-profit facilities.\textsuperscript{15,30-38} Internationally, administrative expenditures show little relation to overall growth in costs or to life expectancy or other health indicators.\textsuperscript{39}

Several factors augment U.S. administrative costs. Private insurers, which have high overhead in most nations — 15.8 percent in Australia, 13.2 percent in Canada, 20.4 percent in Germany, and 10.4 percent in the Netherlands\textsuperscript{40} — have a larger role in the United States than in Canada. Functions essential to private insurance but absent in public programs, such as underwriting and marketing, account for about two thirds of private insurers’ overhead.\textsuperscript{40}

A system with multiple insurers is also intrinsically costlier than a single-payer system. For insurers it means multiple duplicative claims-processing facilities and smaller insured groups, both of which increase overhead.\textsuperscript{41,42} Fragmentation also raises costs for providers who must deal with multiple insurance products — at least 755 in Seattle alone\textsuperscript{43} — forcing them to determine applicants’ eligibility and to keep track of the various copayments, referral networks, and approval requirements. Canadian physicians send virtually all bills to a single insurer. A multiplicity of insurers also precludes paying physicians a lump-sum, global budget. Under a global-budget system, hospitals and government authorities negotiate an annual budget based on past budgets, clinical performance, and projected changes in services and input costs. Hospitals receive periodic lump-sum payments (e.g., \(\frac{1}{12}\) of the annual amount each month).

The existence of global budgets in Canada has eliminated most billing and minimized internal cost accounting, since charges do not need to be attributed to individual patients and insurers. Yet fragmentation itself cannot explain the upswing in administrative costs in the United States since 1969, when costs resembled those in Canada. This growth coincided with the expansion of managed care and market-based competition, which fostered the adoption of complex accounting and auditing practices long standard in the business world.

Several caveats apply to our estimates. U.S. and Canadian hospitals, nursing homes, and home care agencies use different accounting categories, though we took pains to ensure that they were comparable. The U.S. hospital figure is consistent with findings from detailed studies of individual hospitals.\textsuperscript{44-47} The California data we used to estimate the administrative costs of U.S. nursing homes resulted in a lower figure (19.2 percent of revenues) than a published national estimate for 1998 (25.2 percent).\textsuperscript{48}

Our figures for physicians’ administrative costs relied on self-reports of time and money spent. We had to estimate the time spent by other clinical personnel on administrative work and the share of office rent and expenses attributable to administration (together, these estimated categories account for 5 percent of total administrative costs in the United States). Physicians’ reports and our estimates appear congruent with information from a time–motion study\textsuperscript{49} and Census data on clerical and administrative personnel employed in practitioners’ offices. Our estimates of employers’ costs to administer health care benefits rely on a consultant’s survey of

### Table 3. Number of Enrollees and Employees of Selected Major U.S. Private Health Insurers and Canadian Provincial Health Plans, 2001.*

<table>
<thead>
<tr>
<th>Plan Name</th>
<th>No. of Enrollees‡</th>
<th>No. of Employees</th>
<th>No. of Employees/10,000 Enrollees</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>U.S. plans</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aetna</td>
<td>17,170,000</td>
<td>35,700</td>
<td>20.8</td>
</tr>
<tr>
<td>Anthem</td>
<td>7,883,000</td>
<td>14,800</td>
<td>18.8</td>
</tr>
<tr>
<td>Cigna</td>
<td>14,300,000</td>
<td>44,600</td>
<td>31.2</td>
</tr>
<tr>
<td>Humana</td>
<td>6,435,800</td>
<td>14,500</td>
<td>22.5</td>
</tr>
<tr>
<td>Mid Atlantic Medical</td>
<td>1,832,400</td>
<td>2,571</td>
<td>14.0</td>
</tr>
<tr>
<td>Services</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oxford</td>
<td>1,490,600</td>
<td>3,400</td>
<td>22.8</td>
</tr>
<tr>
<td>Pacificare</td>
<td>3,388,100</td>
<td>8,200</td>
<td>24.2</td>
</tr>
<tr>
<td>United Healthcare</td>
<td>8,540,000</td>
<td>30,000</td>
<td>35.1</td>
</tr>
<tr>
<td>WellPoint</td>
<td>10,146,945</td>
<td>13,900</td>
<td>13.7</td>
</tr>
<tr>
<td><strong>Canadian plans</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saskatchewan Health</td>
<td>1,021,288</td>
<td>145</td>
<td>1.4</td>
</tr>
<tr>
<td>Ontario Health Insurance</td>
<td>11,742,672</td>
<td>1,433‡</td>
<td>1.2</td>
</tr>
</tbody>
</table>

* Data are from the Annual Reports filed with the Securities and Exchange Commission,\textsuperscript{49} the Government of Saskatchewan,\textsuperscript{50} and the Government of Ontario.\textsuperscript{51}† Numbers include administrative-services-only contracts as well as Medicare, Medicaid, and commercial enrollees; numbers exclude recipients of pharmacy-benefit management, life, dental, other specialty, and nonhealth insurance products.‡ The estimate is based on wage and salary expenses and on the assumption that the average annual wage is $38,250.
a limited number of U.S. firms. Though subject to error, this category accounts for only 5 percent of administrative costs in the United States.

Cross-national comparisons are complicated by differences in the range of services offered in hospitals and outpatient settings. For instance, many U.S. hospitals operate skilled-nursing facilities, whose costs are lumped with hospital costs in the national health accounts. Similarly, the costs of free-standing surgical centers, more common in the United States than in Canada, are lumped with practitioner costs. Although these differences shift administrative costs among categories (e.g., from nursing homes to hospitals), their effects on national totals should be small.

Price differences also affect international comparisons, a problem only partially addressed by our use of purchasing-power parities to convert Canadian dollars to U.S. dollars. (Using exchange rates instead would increase the difference between the United States and Canada by 27 percent.) Canadian wages are slightly lower than those in the United States, distorting some comparisons (e.g., per capita spending), but not others (e.g., the administrative share of health care spending or personnel).

Our dollar estimates underestimate overhead costs in both nations. They exclude the marketing costs of pharmaceutical firms, the value of patients’ time spent on paperwork, and most of the costs of advertising by providers, health care industry profits, and lobbying and political contributions. Our analysis also omits the costs of collecting taxes to fund health care and the administrative overhead of such businesses as retail pharmacies and ambulance companies. Finally, we priced practitioners’ administrative time using their net, rather than gross, hourly income, conservatively assuming that when physicians substitute clinical for administrative time, their overhead costs rise proportionally; using gross hourly income would boost our estimate of total administrative costs in the United States to $320.1 billion.

The employment figures used for our time-trend analysis exclude administrative employees in consulting firms, drug companies, and retail pharmacies, as well as insurance workers, who are far more numerous in the United States than in Canada (Table 3).

Despite these imprecisions, the difference in the costs of health care administration between the United States and Canada is clearly large and growing. Is $294.3 billion annually for U.S. health care administration money well spent?

Supported by a grant (036617) from the Robert Wood Johnson Foundation.

We are indebted to Geoff Ballinger and Gilles Forrin for their invaluable assistance in securing and analyzing data on Canadian administrative costs and the comparability of U.S. and Canadian cost categories.

REFERENCES


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**POSTING PRESENTATIONS AT MEDICAL MEETINGS ON THE INTERNET**

Posting an audio recording of an oral presentation at a medical meeting on the Internet, with selected slides from the presentation, will not be considered prior publication. This will allow students and physicians who are unable to attend the meeting to hear the presentation and view the slides. If there are any questions about this policy, authors should feel free to call the Journal’s Editorial Offices.
In 2009, there were large variations in how much the Organization for Economic Cooperation and Development countries spent on health and the health spending share of GDP. The United States continued to outspend all other OECD countries by a wide margin, with spending on health per capita of $7960. This was two-and-a-half times more than the OECD average of $3223.

As a share of GDP, the United States spent 17.4% on health in 2009, 5 percentage points more than in the next two countries, the Netherlands and France (which allocated 12.0% and 11.8% of their GDP on health). Norway and Switzerland were the next biggest spenders on health per capita, with spending of more than $5000 per capita in 2009.

Source: OECD Health Data 2011.
Health expenditure per capita, US$ PPPs(3), 2009, OECD countries

Source: OECD Health Data 2011.
Single-payer national health insurance is the solution

Talking point 4:
Single payer covers everyone and saves money.

Single payer can cover everyone, save over $400 billion per year, and shift our health care financing to a progressive model.


Taxes already pay for over 60 percent of U.S. health spending, when tax subsidies to private insurance and the benefit costs of public employees are factored in.

Funding HR 676: The Expanded and Improved Medicare for All Act
How we can afford a national single-payer health plan

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July 31, 2013

I am grateful to Michael Ash, Benjamin Day, Ida Hellander, David Himmelstein, Debra Jacobson, and Steffie Woolhandler for comments. I remain solely responsible for any errors.
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6 Figure 2. Change in after-tax household income due to adoption of progressive financing scheme for HR 676 – 95 percent of Americans are better off with single-payer system.
Executive Summary

The Expanded and Improved Medicare for All Act, HR 676, introduced into the 113th Congress by Rep. John Conyers Jr. and 37 initial co-sponsors, would establish a single authority responsible for paying for medically necessary health care for all residents of the United States.

Under the single-payer system created by HR 676, the U.S. could save an estimated $592 billion annually by slashing the administrative waste associated with the private insurance industry ($476 billion) and reducing pharmaceutical prices to European levels ($116 billion). In 2014, the savings would be enough to cover all 44 million uninsured and upgrade benefits for everyone else. No other plan can achieve this magnitude of savings on health care.

Specifically, the savings from a single-payer plan would be more than enough to fund $343 billion in improvements to the health system such as expanded coverage, improved benefits, enhanced reimbursement of providers serving indigent patients, and the elimination of co-payments and deductibles in 2014. The savings would also fund $51 billion in transition costs such as retraining displaced workers and phasing out investor-owned, for-profit delivery systems.

Health care financing in the U.S. is regressive, weighing heaviest on the poor, the working class, and the sick. With the progressive financing plan outlined for HR 676 (below), 95% of all U.S. households would save money.

HR 676 (Section 211, Appendix 2) specifies a financing plan for single-payer that includes

- Maintaining current federal financing for health care
- Increasing personal income taxes on the top 5% of income earners
- Instituting a modest tax on unearned income
- Instituting a modest and progressive tax on payroll, self-employment
- Instituting a small tax on stock and bond transactions

The following progressive financing plan would meet the specifications of HR 676:

- Existing sources of federal revenues for health care
- Tax of 0.5% on stock trades and 0.01% tax per year to maturity on transactions in bonds, swaps, and trades
- 6% high-income surtax (applies to households with incomes > $225,000)
- 6% tax on unearned income from capital gains, dividends, interest, profits, and rents
- 6% payroll tax on top 60% of income earners (applies to incomes over $53,000, tax paid by employers)
- 3% payroll tax on the bottom 40% of income earners (applies to incomes under $53,000, tax paid by employers)

HR 676 would also establish a system for future cost control using proven-effective methods such as negotiated fees, global budgets, and capital planning. Over time, reduced health cost inflation over the next decade (“bending the cost curve”) would save $1.8 trillion, making comprehensive health benefits sustainable for future generations.

Section I: Financing needs for single payer

Regressive and obsolete funding sources to be replaced by progressive taxation

Health expenditures under the existing health care system are projected to total $3.13 trillion in 2014, plus $32 billion in spending by employers for administering employer-based health insurance plans.1 Health care financing in the U.S. is highly regressive, with low-income households and those dealing with serious illness or injury paying larger shares of their incomes towards health care than high-income and healthy households.

Under HR 676, progressive federal taxes (i.e. taxes that reduce the proportion of income paid by low-income households and those faced with a serious illness for medical care) would replace current regressive, income-invariant sources of health care financing such as spending by businesses and 80% of out-of-pocket spending by individuals.2

Progressive federal taxes would also replace regressive and obsolete funding sources including federal, state, and local government spending on private health insurance for government employees, and state and local government spending on Medicaid and other health programs. According to data from the Centers for Medicare and Medicare Services (CMS), these expenditures will total $1,723 billion in 2014. See Table 1.

Current spending on federal government programs to be applied to funding HR 676 amounts to $1,344 billion.3 This includes federal spending for the Medicare program, the Medicaid program, and the Children’s Health Insurance Program. Other funding sources include $47 billion in revenue from new Medicare taxes included in the Affordable Care Act of 2010, and the remaining 20% of out-of-pocket spending by individuals. Together, these funding sources amount to $1,454 billion of spending retained for funding HR 676 in 2014.
Estimated cost of system improvements and transition costs

A single-payer program would improve the health system in many ways. It would extend coverage to all uninsured Americans. It would reduce barriers to access for the currently insured by eliminating burdensome co-payments, deductibles and other out-of-pocket spending for medical care. It would offer improved benefits by covering services like dental and long-term care. It would eliminate inequity in the treatment of less-affluent patients by paying providers the same fee for each patient regardless of income or employment. These improvements would cost an estimated $343 billion annually.

Transition costs of implementing HR 676 would include the cost of unemployment insurance and retraining of displaced insurance and provider administrative personnel. In addition, the cost of converting investor-owned health care facilities to non-profit status would be incurred and is spread out over 15 years. Including transition costs of $51 billion in the first year, the estimated cost of expanding and improving Medicare is $394 billion. See Table 2.

Section II: Single-payer system savings as a source of financing

Savings on provider administrative overhead and drug prices

For decades, health care costs have risen much faster than income in the United States. As a result, total health care spending has risen from 5% of Gross Domestic Product in 1960 to nearly 18% today. While some of the increase in costs in the United States is due, as in other countries, to improvements in care, innovative technologies and greater longevity, costs have risen much faster in the United States than elsewhere because of the growing administrative burden of our private health insurance system.

Because of the large number of separate insurance programs and the fragmented billing system, American physicians and hospitals incur much greater costs for billing and insurance-related activities than do their foreign counterparts. Compared with doctors in Ontario, Canada, for example, Americans spend nearly four times as much on billing and insurance related...
Note: The cost of coverage expansion includes overhead on all new coverage under the single payer ($25 billion) as well as $85 billion to cover the estimated 44 million who will be uninsured in 2014. It assumes the uninsured spend 55% as much on health care as the insured and would spend 80% with insurance; the lower spending is based on the age distribution of the uninsured. It is assumed that the ACA would have lowered the share without insurance by 11 million from 2013 to 2014, to 16% of the nonelderly population in 2014.[8] Utilization expansion assumes a 3% increase for most activities with a 20% increase for dental care (currently not provided for many insurance plans), a 20% increase in nursing home care, and a 40% increase in home health care. Current Medicaid physician rates are 34% below those paid under Medicare, and the ACA provides for an increase in rates for primary care to Medicare levels; this adjustment assumes that they will be equalized for all physician services.9

Table 2. Estimated cost of health system improvements and transition costs under HR 676 (in billions of dollars)

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased utilization</td>
<td>144</td>
</tr>
<tr>
<td>Cost of expanded coverage including added government administrative costs</td>
<td>110</td>
</tr>
<tr>
<td>Cost of Medicaid rate adjustment</td>
<td>89</td>
</tr>
<tr>
<td>Transition cost of unemployment insurance and retraining for displaced workers</td>
<td>31</td>
</tr>
<tr>
<td>Transition cost of capital buy-out of private health care facilities</td>
<td>20</td>
</tr>
<tr>
<td>Total</td>
<td>$394</td>
</tr>
</tbody>
</table>

Table 3. Savings on provider administrative overhead and pharmaceutical costs (in billions of dollars)

<table>
<thead>
<tr>
<th>Description</th>
<th>Health care spending with ACA</th>
<th>Savings rate</th>
<th>Savings w/ H.R. 676</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital care</td>
<td>983</td>
<td>9.4%</td>
<td>91.9</td>
</tr>
<tr>
<td>Physicians and clinical services</td>
<td>602</td>
<td>10.7%</td>
<td>64.2</td>
</tr>
<tr>
<td>Other professional services</td>
<td>84</td>
<td>9.0%</td>
<td>7.6</td>
</tr>
<tr>
<td>Dental services</td>
<td>120</td>
<td>9.0%</td>
<td>10.9</td>
</tr>
<tr>
<td>Home health care</td>
<td>88</td>
<td>19.2%</td>
<td>17.0</td>
</tr>
<tr>
<td>Nursing home care</td>
<td>172</td>
<td>7.0%</td>
<td>12.0</td>
</tr>
<tr>
<td>Other personal health care</td>
<td>164</td>
<td>10.7%</td>
<td>17.5</td>
</tr>
<tr>
<td>Subtotal savings on provider overhead</td>
<td>221.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subtotal savings on pharmaceuticals</td>
<td>309</td>
<td>37.5%</td>
<td>115.8</td>
</tr>
<tr>
<td>Total savings on provider overhead and drug costs under HR 676</td>
<td>$336.9</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sources: Administrative savings are the difference between overhead costs in the United States and Canada in 1999 from Steffie Woolhandler, Terry Campbell, and David Himmelstein, “Cost of Health Care Administration in the United States and Canada,” New England Journal of Medicine no. 349 (2003); relative drug prices are from McKinsey Global Institute, “Accounting for the Cost of Health Care in the United States,” January 2007; projected spending under the ACA in 2014 is from Centers for Medicare and Medicaid Services.

Table 4. Savings on administrative costs of insurers, Medicaid, and employers (in billions of dollars)

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insurer overhead (excluding costs to providers)</td>
<td>197.4</td>
</tr>
<tr>
<td>Medicaid overhead</td>
<td>26.0</td>
</tr>
<tr>
<td>Employers’ costs to manage employer-sponsored health coverage</td>
<td>31.7</td>
</tr>
<tr>
<td>Total</td>
<td>$255.1</td>
</tr>
</tbody>
</table>
activities ($83,000 per physician versus $22,000 in Ontario), and nursing staff, including medical assistants, spent 20.6 hours per physician per week interacting with health plans—nearly ten times that of their Ontario counterparts.9

In addition to the administrative savings within provider offices, a single-payer system could lead to dramatic savings by negotiating reduced prices for pharmaceuticals which cost approximately 60% more in the U.S. than in Europe.10 See Table 3. Today, Medicare is the only entity in the world excluded from negotiating lower prices on medications for its beneficiaries.

**Savings on the administrative costs of private insurers, Medicaid, and employers**

In addition to reducing the overhead of providers like doctors and hospitals, eliminating private insurance plans would also generate administrative savings on insurance overhead. Currently, private insurers have a “medical loss ratio” (the share of health care spending going for medical services) of barely 88%. The 12% administrative cost average includes the cost of advertising, enrollment, collecting premiums, paying claims, bureaucratic red-tape designed to discourage the submission of claims, inflated executive compensation, and profit, as well as relatively high administrative cost due to the small scale of many companies. A single-payer system would eliminate most of these costs, raising the share of spending going to providers up to the 98% rate for Medicare. With almost a trillion dollars in premiums paid into private health insurance, lowering the administrative ratio to the Medicare rate would save over $197 billion.11

---

**Figure 1. Single-payer system savings from reduced administrative costs and drug prices (in billions of dollars)**

---

**Table 5. Savings on federal tax expenditures for health care (in billions of dollars)**

<table>
<thead>
<tr>
<th>Description</th>
<th>Savings (in billions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exclusion of employer contribution for health insurance premiums from income tax</td>
<td>211.5</td>
</tr>
<tr>
<td>Exclusion of employer contribution for health insurance premiums from Medicare payroll tax</td>
<td>16.0</td>
</tr>
<tr>
<td>Self-employed medical insurance premiums</td>
<td>7.7</td>
</tr>
<tr>
<td>Medical Savings Accounts</td>
<td>2.2</td>
</tr>
<tr>
<td>Deductibility of medical expenses</td>
<td>11.2</td>
</tr>
<tr>
<td>Exclusion of interest on hospital construction bonds</td>
<td>5.5</td>
</tr>
<tr>
<td>Special Blue Cross/Blue Shield deduction</td>
<td>0.5</td>
</tr>
<tr>
<td>Distributions from retirement plans for premiums for health insurance</td>
<td>0.4</td>
</tr>
<tr>
<td>Credit for employee health insurance expenses of small business</td>
<td>4.5</td>
</tr>
<tr>
<td>Total federal income tax expenditures</td>
<td>$259.5</td>
</tr>
</tbody>
</table>

Further savings of $26 billion would come from the reduction in the administrative expenses of running Medicaid as a joint federal-state means-tested program. Currently, 5.7% of Medicaid expenses go for administration, including the cost of checking eligibility and operating a payment system separate from Medicare and other insurance systems. In addition, employers will save $32 billion on the direct costs of managing their employer-provided health insurance systems, including the costs of collecting and processing payments as well as consultant charges for choosing an insurance carrier. See Table 4.

Altogether, administrative savings from the single-payer system, on providers’ overhead costs, and on administrative expense among insurers, Medicaid, and employers, come to $476 billion in 2014. Adding in the savings on prescription drugs of $116 billion brings the total savings to $592 billion. See Figure 1. Moreover, a single-payer system would slow the growth in health care spending from year to year, greatly reducing the burden of health care costs over the long term. HR 676 would eliminate the need for federal subsidies for the purchase of private health insurance by business and individuals. Along with deductions for medical savings accounts, medical expenses and some smaller tax breaks associated with the private insurance system, eliminating tax subsidies would save $260 billion (Table 5).

Section III: A progressive funding plan for HR 676

The health care improvements and transition costs of a single-payer system ($394 billion, Table 2), including expanding coverage to 44 million uninsured Americans and upgrading coverage for everyone else, would be funded under HR 676 by $592 billion in savings on administrative costs and reduced pharmaceutical prices. As a result of implementation of HR 676, health spending in the first year would fall by $198 billion to $2,964 billion (Table 6).

Table 6. National Health Expenditures with and without Implementation of HR 676 (in billions of dollars)

<table>
<thead>
<tr>
<th>Baseline projected NHE 2014</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Employers’ costs to manage health coverage</td>
<td>32</td>
</tr>
<tr>
<td>Expenditures without single-payer reform</td>
<td>3,162</td>
</tr>
<tr>
<td>Single-payer system improvements and transition costs</td>
<td>394</td>
</tr>
<tr>
<td>Single-payer savings on administrative and drug costs</td>
<td>(592)</td>
</tr>
<tr>
<td>Expenditures with single-payer reform</td>
<td>$2,964</td>
</tr>
</tbody>
</table>

Table 7. A progressive financing plan for HR 676 that replaces regressive funding sources and improves and expands comprehensive benefits to all (in billions of dollars)

<table>
<thead>
<tr>
<th>New progressive revenue sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tobin tax of 0.5% on stock trades and 0.01% per year to maturity on transactions in bonds, swaps, and trades.</td>
</tr>
<tr>
<td>6% Surtax on household incomes over $225,000</td>
</tr>
<tr>
<td>6% tax on property income from capital gains, dividends, interest, profits,</td>
</tr>
<tr>
<td>6% payroll tax on top 60% with incomes over $53,000</td>
</tr>
<tr>
<td>3% payroll tax on bottom 40% with incomes under $53,000</td>
</tr>
<tr>
<td>Total new progressive sources</td>
</tr>
<tr>
<td>Tax expenditure savings</td>
</tr>
<tr>
<td>Federal Medicare, Medicaid, and other health spending, and 20% of current out-of-pocket spending (maintained from current system)</td>
</tr>
<tr>
<td>Total Revenues</td>
</tr>
<tr>
<td>Savings for deficit reduction</td>
</tr>
</tbody>
</table>

Sources: Revenue from the Tobin Tax from Dean Baker, et al., “The Potential Revenue from Financial Transactions Taxes.” The Baker et al. estimates are for 2011 and I have extrapolated assuming revenue will grow at the same pace as the GDP; this conservative assumption leads to an understatement of revenue. Income distribution is from the updated background tables for Thomas Piketty and Emmanuel Saez, “Income Inequality in the United States.” [16] Revenue is calculated by applying the tax rates to the reported income; since Piketty and Saez use IRS income data, I am assuming the same rate of noncompliance as under the current tax law. I have extrapolated from 2006 assuming that all income groups and all income types grew equally with the GDP; this conservative assumption leads to an understatement of revenue.
With the progressive funding plan outlined in Table 7, regressive and obsolete funding sources would be replaced by progressive taxes, including a new tax on financial transactions (a so-called Tobin Tax\textsuperscript{14}), a progressive payroll tax and tax on unearned income, and surtax on high income individuals. Under the plan developed here, revenues would exceed expenditures by $154 billion in the first year, generating funds that could be invested in health professional education or used for deficit reduction.\textsuperscript{15} The proposed taxes would be highly progressive, especially compared with current health care spending which falls most heavily on lower-income households. On average, only 5\% of Americans would pay more under this proposal, which would mean savings for Americans with household incomes up to well above $200,000. See Figure 2.

**Conclusion: Single payer covers more, costs less than current system for 95\% of Americans**

This analysis shows that it is possible to reform the U.S. health financing system to make it more efficient and equitable. Universal health care with comprehensive benefits could be achieved under a single-payer system as embodied in HR 676. Improved Medicare for All would cost less for 95\% of households and reduce the deficit by $154 billion in the first year.

Progressive financing of HR 676 is possible using a Tobin or “Robin Hood” tax as one of the funding sources. Although the Tobin tax is desirable for a number of reasons, HR 676 single payer may be financed without the Tobin tax if necessary. See Appendix 1.

This analysis is done for one point in time, 2014. Over time, the health care system in the United States has become more expensive both relative to the cost of providing equivalent services in the past and relative to other countries.\textsuperscript{18} Under the federal reform law of 2010, it is projected that health care costs will continue to grow, creating growing pressure to cut costs by reducing access and quality of care.

In contrast, HR 676 would establish a system for future cost control using proven-effective methods such as negotiated fees, global budgets, and capital planning. Over the next decade, savings from reduced health inflation (“bending the cost curve”) would equal $1.8 trillion. On top of the enormous administrative savings of single payer, the savings from effective cost-control would make it possible to provide universal coverage and comprehensive benefits to future generations\textsuperscript{19} at a sustainable cost.

Gerald Friedman is professor, Department of Economics, University of Massachusetts at Amherst. He can be reached at gfriedma@econs.umass.edu.
## Appendix 1- Summary Tables of Alternatives Financing Plans for HR 676

**With Tobin Tax (transactions or “Robin Hood” tax)**

*In billions of dollars*

<table>
<thead>
<tr>
<th>Baseline spending</th>
<th>3,130</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Adjustments</strong></td>
<td></td>
</tr>
<tr>
<td>Employer costs of administering health insurance system</td>
<td>32</td>
</tr>
<tr>
<td><strong>Transition costs</strong></td>
<td></td>
</tr>
<tr>
<td>Costs of retraining displaced workers</td>
<td>31</td>
</tr>
<tr>
<td>Costs of buying out capital of for-profit health care companies</td>
<td>20</td>
</tr>
<tr>
<td><strong>Added spending for improved health care</strong></td>
<td></td>
</tr>
<tr>
<td>Increased utilization</td>
<td>144</td>
</tr>
<tr>
<td>Cost of expanded coverage (including added government administrative costs)</td>
<td>110</td>
</tr>
<tr>
<td>Cost of Medicaid rate adjustment</td>
<td>89</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>3,556</td>
</tr>
<tr>
<td><strong>Remaining revenue sources</strong></td>
<td></td>
</tr>
<tr>
<td>Federal Medicare, Medicaid, and other health spending, and 20% of current out-of-pocket spending</td>
<td>1,454</td>
</tr>
<tr>
<td>Savings from administrative efficiencies and reduced monopolistic drug pricing</td>
<td>592</td>
</tr>
<tr>
<td>Tax expenditure savings</td>
<td>260</td>
</tr>
<tr>
<td><strong>Net revenue needs</strong></td>
<td>1,250</td>
</tr>
<tr>
<td><strong>New revenue sources</strong></td>
<td></td>
</tr>
<tr>
<td>Tobin tax of 0.5% on stock trades and 0.01% per year to maturity on transactions in bonds, swaps, and trades</td>
<td>442</td>
</tr>
<tr>
<td>6% surtax on household incomes over $225,000</td>
<td>279</td>
</tr>
<tr>
<td>6% tax on property income from capital gains, dividends, interest,</td>
<td>310</td>
</tr>
<tr>
<td>6% payroll tax on top 60% with incomes over $53,000</td>
<td>346</td>
</tr>
<tr>
<td>3% payroll tax on bottom 40% with incomes under $53,000</td>
<td>27</td>
</tr>
<tr>
<td><strong>Total additional revenues</strong></td>
<td>1,404</td>
</tr>
<tr>
<td><strong>Net surplus for deficit reduction</strong></td>
<td>$154</td>
</tr>
</tbody>
</table>
## Appendix 1- Summary Tables of Alternatives Financing Plans for HR 676

Without Tobin Tax (transactions or “Robin Hood” tax)  
In billions of dollars

<table>
<thead>
<tr>
<th><strong>Baseline spending</strong></th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Adjustments</strong></td>
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</tr>
<tr>
<td><strong>Transition costs</strong></td>
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</tr>
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<td>20</td>
</tr>
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<tr>
<td>Cost of Medicaid rate adjustment</td>
<td>89</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>3,556</td>
</tr>
</tbody>
</table>

**Remaining revenue sources**

<table>
<thead>
<tr>
<th>Remaining revenue sources</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal Medicare, Medicaid, and other health spending, and 20% of current out-of-pocket spending</td>
<td>1,454</td>
</tr>
<tr>
<td>Savings from administrative efficiencies and reduced monopolistic drug pricing</td>
<td>592</td>
</tr>
<tr>
<td>Tax expenditure savings</td>
<td>260</td>
</tr>
<tr>
<td><strong>Net revenue needs</strong></td>
<td>1,250</td>
</tr>
</tbody>
</table>

**New revenue sources**

<table>
<thead>
<tr>
<th>New revenue sources</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>8% surtax on household incomes over $225,000</td>
<td>373</td>
</tr>
<tr>
<td>8% tax on property income from capital gains, dividends, interest, profits, and</td>
<td>414</td>
</tr>
<tr>
<td>8% payroll tax on top 60% with incomes over $53,000</td>
<td>461</td>
</tr>
<tr>
<td>4% payroll tax on bottom 40% with incomes under $53,000</td>
<td>41</td>
</tr>
<tr>
<td><strong>Total additional revenues</strong></td>
<td>1,289</td>
</tr>
</tbody>
</table>

**Net surplus for deficit reduction**

| Net surplus for deficit reduction | $39   |
Appendix 2: Text of funding section of HR 676 in the 113th Congress

1st Session
H. R. 676

To provide for comprehensive health insurance coverage for all United States residents, improved health care delivery, and for other purposes.

C. 211. OVERVIEW: FUNDING THE MEDICARE FOR ALL PROGRAM.

(a) In General. The Medicare For All Program is to be funded as provided in subsection (c)(1).

(b) Medicare For All Trust Fund. There shall be established a Medicare For All Trust Fund in which funds provided under this section are deposited and from which expenditures under this Act are made.

(c) Funding.

(1) IN GENERAL. There are appropriated to the Medicare For All Trust Fund amounts sufficient to carry out this Act from the following sources:

(A) Existing sources of Federal Government revenues for health care.

(B) Increasing personal income taxes on the top 5 percent income earners.

(C) Instituting a modest and progressive excise tax on payroll and self-employment income.

(D) Instituting a modest tax on unearned income.

(E) Instituting a small tax on stock and bond transactions.

(2) SYSTEM SAVINGS AS A SOURCE OF FINANCING. Funding otherwise required for the Program is reduced as a result of:

(A) vastly reducing paperwork;

(B) requiring a rational bulk procurement of medications under section 205(a); and

(C) improved access to preventive health care.

(3) ADDITIONAL ANNUAL APPROPRIATIONS TO MEDICARE FOR ALL PROGRAM. Additional sums are authorized to be appropriated annually as needed to maintain maximum quality, efficiency, and access under the Program.

SEC. 212. APPROPRIATIONS FOR EXISTING PROGRAMS.

Notwithstanding any other provision of law, there are hereby transferred and appropriated to carry out this Act, amounts from the Treasury equivalent to the amounts the Secretary estimates would have been appropriated and expended for Federal public health care programs, including funds that would have been appropriated under the Medicare program under title XVIII of the Social Security Act, under the Medicaid program under title XIX of such Act, and under the Children's Health Insurance Program under title XXI of such Act.

Notes


2. While the largest components of out-of-pocket expenditures, prescription drugs and co-payments and deductibles, will be covered under HR 676, other medically-optimal expenditures, such as some dental procedures or luxury eyeglasses, would not be covered, nor would most vitamins and some alternative medical practices. For the breakdown of out-of-pocket spending, see Ann Foster, “Out-of-pocket Health Care Expenditures: a Comparison,” Monthly Labor Review (February 2010): 3–20.

3. HR 676 does not incorporate the Indian Health Service for the first five years, or the Veterans Administration for the first ten years (Sec 401). For this study, however, these have been included both on the revenue and the expenditure side.


5. Physicians who accept Medicaid patients are paid far less than those who serve other patients. Raising rates would be a transfer to providers who would be paid more for services they are currently performing. It would also improve access by allowing providers to perform services better, by spending more time with each patient; and it would encourage more providers to provide services for less-affluent patients.

6. In section 303, HR 676 provides for up to two years of unemployment insurance and priority in retraining for “clerical, administrative, and billing personnel in insurance companies, doctors’ offices, hospitals, nursing facilities, and other facilities whose jobs are eliminated due to reduced administration.” One percent of health spending is set aside for unemployment and retraining annually.

7. In Section 103, HR 676 provides that over a fifteen year period, investor-owners shall be compensated for the actual appraised value of converted facilities used in the delivery of care. A reserve fund of $20 billion annually is created for this purpose.


11. No savings have been assumed from reduced fraud despite the great capacity of a single-payer system to reduce or even to eliminate fraudulent billing. Fraudulent billing, including duplicate billing and billing for services not rendered, accounts for between 3% and 10% of health care spending in the United States, including an error rate in federal programs of over 9%. See “Testimony of the National Health Care Anti-Fraud Association” (Harrisburgh, PA., House Insurance Committee, House of Representatives, Commonwealth of Pennsylvania, January 28, 2010), http://files/cbofiles/attachments/43900_ACAinsuranceCoverageEffects.pdf.


13. HR 676 does not incorporate the Indian Health Service for the first five years, or the Veterans Administration for the first ten years (Sec 401). For this study, however, these have been included both on the revenue and the expenditure side.


15. Physicians who accept Medicaid patients are paid far less than those who serve other patients. Raising rates would be a transfer to providers who would be paid more for services they are currently performing. It would also improve access by allowing providers to perform services better, by spending more time with each patient; and it would encourage more providers to provide services for less-affluent patients.

16. In section 303, HR 676 provides for up to two years of unemployment insurance and priority in retraining for “clerical, administrative, and billing personnel in insurance companies, doctors’ offices, hospitals, nursing facilities, and other facilities whose jobs are eliminated due to reduced administration.” One percent of health spending is set aside for unemployment and retraining annually.

17. In Section 103, HR 676 provides that over a fifteen year period, investor-owners shall be compensated for the actual appraised value of converted facilities used in the delivery of care. A reserve fund of $20 billion annually is created for this purpose.


21. No savings have been assumed from reduced fraud despite the great capacity of a single-payer system to reduce or even to eliminate fraudulent billing. Fraudulent billing, including duplicate billing and billing for services not rendered, accounts for between 3% and 10% of health care spending in the United States, including an error rate in federal programs of over 9%. See “Testimony of the National Health Care Anti-Fraud Association” (Harrisburgh, PA., House Insurance Committee, House of Representatives, Commonwealth of Pennsylvania, January 28, 2010), http://files/cbofiles/attachments/43900_ACAinsuranceCoverageEffects.pdf.


15. Over the next decade, savings from excess revenue, reduced health-care spending because of a slowing in the rate of health-care inflation, and interest savings will produce total deficit reduction of almost $3 trillion.


19. Health care expenditures for the next decade have been calculated under the assumption that HR 676 is implemented in 2014 and the rate of growth of expenditures slows by 1.1% a year after that. The $1.8 trillion figure is the difference between the annual growth in expenditures projected by the CMS for 2015-24 and the growth projected under these assumptions.

References


Paying For National Health Insurance—And Not Getting It

Taxes pay for a larger share of U.S. health care than most Americans think they do.

by Steffie Woolhandler and David U. Himmelstein

**ABSTRACT:** The threat of steep tax hikes has torpedoed the debate over national health insurance. Yet according to our calculations, the current tax-financed share of health spending is far higher than most people think: 59.8 percent. This figure (which is about fifteen percentage points higher than the official Centers for Medicare and Medicaid Services [CMS] estimate) includes health care–related tax subsidies and public employees’ health benefits, neither of which are classified as public expenditures in the CMS accounting framework. U.S. tax-financed health spending is now the highest in the world. Indeed, our tax-financed costs exceed total costs in every nation except Switzerland. But the sub rosa character of much tax-financed health spending in the United States obscures its regressivity. Public spending for care of the poor, elderly, and disabled is hotly debated and intensely scrutinized. But tax subsidies that accrue mostly to the affluent and health benefits for middle-class government workers are mostly below the radar screen. National health insurance would require smaller tax increases than most people imagine and would make government’s role in financing care more visible and explicit.

**In a political culture** characterized by “read my lips/over my dead body,” the threat of huge tax increases silences the debate over national health insurance. Never mind that Canadians, Australians, and Western Europeans spend about half what we do on health care, enjoy universal coverage, and are healthier. Their taxes to finance health care are higher; or are they?

The Centers for Medicare and Medicaid Services (CMS) pegs the government’s share of health spending in the United States at 45.3 percent ($548 billion in 1999). This figure reflects an accounting framework based on who wrote the last check in the sequence from individual households to providers—a government program or private payer. Thus, the CMS classifies health benefits for soldiers as government health expenditures, since government actually writes the checks to pay military hospitals and doctors. In contrast, health benefits for FBI agents are...
labeled as private health expenditures because a private insurer pays the claims.

The CMS’s approach abstracts from the fact that premiums collected by private insurers may have originated either in the private sector or in government (for example, under the Federal Employees Health Benefits Program, or FEHBP). What the CMS actuaries call “publicly financed” health care therefore will be less than what would properly be called “tax-financed” health care.

To measure tax-financed health care, one should analyze the flow of funds as it first emerges from the private sector (households/individuals or employers) (Exhibit 1). In this alternative accounting framework, taxes paid to the government, which it then uses to pay for health care—whether directly (for example, through Medicaid) or indirectly (for example, through the FEHBP)—would constitute tax-financed care. Money that individuals or private employers pay directly to insurers or health care providers would be classified as “private”—with one important caveat: that many of these “private” payments are subsidized by taxes. For instance, if Jones earns $50,000 in salary plus $6,000 in employer-paid health benefits, she pays no taxes on the $6,000 (and the employer deducts it as a business expense). In contrast, if Jones were to receive a $6,000 pay increase, she would pay an additional $2,779 in taxes: $1,551 in federal income tax, $310 in state income tax, and $918 in payroll taxes.

When government grants Jones a $2,779 tax preference, these funds must be made up from elsewhere, if one makes the reasonable assumption that government wishes to keep its budget in balance. Government could simply reduce its spend-

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**EXHIBIT 1**

Flow Of Health Care Financing Funds Among Individuals/Employers, Providers, Government, And Private Insurers

*SOURCE: Authors’ analysis.*
ing on other programs by $2,779; for example, it could cut welfare payments or defense spending. In that case, the people who had hitherto received those government funds would be forced to sacrifice indirectly for Jones's health insurance policy. It seems reasonable to call this government-coerced redistribution of economic privilege a form of “tax financing” for part of Jones's health care.

Alternatively, government might choose to ask all other taxpayers to pay slightly more in taxes to cover the shortfall occasioned by granting Jones a $2,779 tax preference. Here, too, government coercion redistributes income from other taxpayers to Jones, in this case explicitly through taxes. One would have no trouble calling this transfer “tax financing” of part of Jones's health care.

In either case, 46.3 percent ($2,779/$6,000) of Jones's health insurance premium was effectively “tax-financed” through the power of government to make such redistributions. Indeed, the Office of Management and Budget (OMB) publishes its estimate of the federal income tax subsidy to private health spending—under the rubric “tax expenditure”—as part of the federal budget. But the CMS does not include this subsidy in its national health accounts.

Below, we calculate total tax-financed health spending, including these tax subsidies as well as government spending for public employees' coverage. We reach a surprising conclusion: Our allegedly private health care system is funded mainly by taxes. Indeed, Americans pay the world’s highest taxes to finance health care.

**Materials And Methods**

We calculated U.S. public spending and tax subsidies for health care for selected years between 1965 and 1999 by totaling (1) direct government payments for health-related activities (for example, Medicare, Medicaid, veterans' and military health care, subsidies to public hospitals, and public health and research programs); (2) government payments for health benefits for public employees; and (3) tax subsidies for the purchase of health insurance and health care. We refer to the total of these three categories as “total tax-financed health expenditures.”

- **Direct government payments.** We used figures from the CMS Office of the Actuary, for direct government spending for health care programs, research, and so forth.

- **Public employees’ benefit costs.** Estimating government spending on private insurance for public employees for the earlier years is straightforward; the CMS (then HCFA) published tabulations of these figures for 1965–1995. However, comparable tabulations are not available for 1999.

  To compute the 1999 figure, we combined data on federal workers with separate data on state and local government employees. We calculated federal health benefits by multiplying FEHBP enrollment by the federal government's average premium contribution. We then added an estimate of state and local government spending for employee health benefits from the Medical Expenditure Panel Survey (MEPS).

- **Tax subsidies.** Calculating the value of tax subsidies is complex because the
government offers several tax preferences to health spending. First, employer-paid health insurance benefits are exempt from income and payroll taxes. In addition, health costs paid with pretax dollars via “flexible spending accounts” are tax-exempt. Finally, individual taxpayers can deduct health care costs that exceed 7.5 percent of their adjusted gross income.

Federal income tax subsidies. For years since 1975 we used the OMB's estimates of the federal income tax subsidy to health care. Unfortunately, there are no OMB estimates prior to 1975. Hence, for our 1965 and 1970 estimates we adjusted the 1975 OMB figure downward to reflect health costs and tax rates in those years.

Social Security (SS) payroll tax subsidies. We calculated the value of this subsidy by multiplying total employer spending for health benefits by the SS tax rate for each year (for example, 12.4 percent in 1999). Because income above a cap ($72,600 in 1999) is not subject to SS taxes, we assumed that high-income persons do not receive this subsidy and adjusted our estimates downward accordingly.

Medicare Hospital Insurance (HI) payroll tax subsidies. We calculated the value of this exemption by multiplying total employer spending for health benefits by the HI payroll tax rate for each year (for example, 2.9 percent in 1999). For 1970–1990 we adjusted this figure downward to account for employees with earnings above the HI tax cap, using the same methodology as for SS. There was no income cap on HI taxes in 1995 or 1999.

State and local income tax subsidies. We calculated the value of this exemption by multiplying the value of the federal income tax subsidy by the ratio of local and state income tax receipts to federal income tax receipts.

Adjustment to avoid double counting of payroll and income taxes. We made a small downward adjustment—about 3.4 percent of total tax subsidies in 1999—to avoid double counting of the income and payroll tax subsidies.

Adjustment to avoid double counting of tax subsidies to government employees. The OMB estimate of health-related tax subsidies includes tax subsidies to government employees. Because we already included the entire government contribution to its employees' health benefits as a tax-financed expenditure, we adjusted the OMB estimate (and our calculation of state and local tax subsidies) downward by government employers' share of total employer-paid health benefits.

We compared U.S. figures for health spending (per capita and as a share of gross domestic product [GDP]) to data for other nations compiled by the Organization for Economic Cooperation and Development (OECD). Data for other nations were converted to U.S. dollars using GDP purchasing power parities (PPPs). Where figures for 1999 were not yet available, we used 1998 data.

Study Results

Tax-financed health expenditures totaled $723.8 billion in 1999, $2,604 per capita, or 59.8 percent of total health spending (Exhibit 2). Between 1965 and 1999 direct government health spending, public employers' benefit spending, and tax
subsidies all rose more rapidly than did overall health care costs (Exhibit 3).

As a share of tax-financed health expenditures, tax subsidies and public employees’ benefit costs rose, despite the surge in direct federal spending after the passage of Medicare and Medicaid. Conversely, the proportion accounted for by direct spending (what the CMS labels “public-sector health expenditures”) fell. In 1999 tax subsidies accounted for 15.1 percent of tax-financed health expenditures, public employee health benefits for 9.1 percent, and direct government health spending for 75.8 percent.

In 1965 U.S. tax-financed health expenditures per capita were well below the total spending levels in most other developed nations (Exhibit 4) and similar to government spending in other wealthy nations. By 1999 tax-financed health expenditures per capita in the United States exceeded total health spending per ca-

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**EXHIBIT 2**

**Tax-Financed Health Expenditures, Billions Of Dollars, Selected Years 1965–1999**

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>National health expenditures (NHE)</td>
<td>$41.0</td>
<td>$73.1</td>
<td>$129.8</td>
<td>$245.8</td>
<td>$426.5</td>
<td>$695.6</td>
<td>$987.0</td>
<td>$1,210.7</td>
</tr>
<tr>
<td>Federal government</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medicare</td>
<td>0.0</td>
<td>7.7</td>
<td>16.3</td>
<td>37.4</td>
<td>71.8</td>
<td>110.2</td>
<td>184.8</td>
<td>213.6</td>
</tr>
<tr>
<td>Medicaid</td>
<td>0.0</td>
<td>2.8</td>
<td>7.4</td>
<td>14.5</td>
<td>22.7</td>
<td>42.5</td>
<td>86.2</td>
<td>107.7</td>
</tr>
<tr>
<td>Other health programs</td>
<td>4.7</td>
<td>7.0</td>
<td>12.3</td>
<td>19.4</td>
<td>27.6</td>
<td>39.8</td>
<td>52.9</td>
<td>63.5</td>
</tr>
<tr>
<td>Public employee health benefits</td>
<td>0.2</td>
<td>0.3</td>
<td>1.2</td>
<td>2.2</td>
<td>4.3</td>
<td>9.2</td>
<td>11.3</td>
<td>13.2</td>
</tr>
<tr>
<td>Tax subsidies</td>
<td>1.7</td>
<td>3.5</td>
<td>7.0</td>
<td>19.1</td>
<td>31.3</td>
<td>49.8</td>
<td>75.5</td>
<td>95.4</td>
</tr>
<tr>
<td>State/local government</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medicaid</td>
<td>0.0</td>
<td>2.4</td>
<td>6.0</td>
<td>11.5</td>
<td>18.3</td>
<td>31.1</td>
<td>57.9</td>
<td>79.3</td>
</tr>
<tr>
<td>Other health programs</td>
<td>5.5</td>
<td>7.6</td>
<td>12.9</td>
<td>22.0</td>
<td>34.2</td>
<td>58.7</td>
<td>76.4</td>
<td>84.6</td>
</tr>
<tr>
<td>Public employee health benefits</td>
<td>0.3</td>
<td>0.7</td>
<td>2.2</td>
<td>7.6</td>
<td>19.2</td>
<td>33.5</td>
<td>47.1</td>
<td>52.4</td>
</tr>
<tr>
<td>Tax subsidies</td>
<td>0.1</td>
<td>0.4</td>
<td>0.9</td>
<td>2.5</td>
<td>4.7</td>
<td>6.9</td>
<td>11.9</td>
<td>14.2</td>
</tr>
<tr>
<td>Total tax-financed (billions)</td>
<td>$12.6</td>
<td>$32.4</td>
<td>$66.3</td>
<td>$136.2</td>
<td>$233.1</td>
<td>$383.4</td>
<td>$604.0</td>
<td>$723.8</td>
</tr>
<tr>
<td>Tax-financed ($ per capita)</td>
<td>$63</td>
<td>$154</td>
<td>$301</td>
<td>$592</td>
<td>$963</td>
<td>$1,509</td>
<td>$2,254</td>
<td>$2,604</td>
</tr>
<tr>
<td>Tax-financed as percent of NHE</td>
<td>30.7%</td>
<td>44.4%</td>
<td>51.0%</td>
<td>55.4%</td>
<td>54.6%</td>
<td>55.1%</td>
<td>61.2%</td>
<td>59.8%</td>
</tr>
</tbody>
</table>

**SOURCE:** Authors’ analysis.

*1999 estimate is from a data source that results in lower estimates than data sources used for earlier years.

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**EXHIBIT 3**

**Tax-Financed Expenditures As A Percentage Of Total Health Expenditures, Selected Years 1965–1999**

<table>
<thead>
<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal direct spending</td>
<td>11.4%</td>
<td>24.0%</td>
<td>27.8%</td>
<td>29.0%</td>
<td>28.6%</td>
<td>27.7%</td>
<td>32.8%</td>
<td>31.8%</td>
</tr>
<tr>
<td>State/local direct spending</td>
<td>13.5</td>
<td>13.7</td>
<td>14.6</td>
<td>13.6</td>
<td>12.3</td>
<td>12.9</td>
<td>13.6</td>
<td>13.5</td>
</tr>
<tr>
<td>Public employee benefits</td>
<td>1.2</td>
<td>1.4</td>
<td>2.6</td>
<td>4.0</td>
<td>5.3</td>
<td>6.1</td>
<td>5.9</td>
<td>5.4</td>
</tr>
<tr>
<td>Tax subsidies</td>
<td>4.6</td>
<td>5.3</td>
<td>6.1</td>
<td>8.8</td>
<td>8.4</td>
<td>8.2</td>
<td>8.9</td>
<td>9.1</td>
</tr>
</tbody>
</table>

**SOURCE:** Authors’ analysis.
pita in every other nation except Switzerland (Exhibit 5) and dwarfed government spending in any other nation.

EXHIBIT 4
Public And Private Per Capita Health Care Spending In Ten Countries, 1965

- Japan
- Italy
- U.K.
- France
- Germany
- Australia
- Sweden
- Canada
- Switzerland
- U.S.


**NOTE:** All figures have been converted to U.S. dollars using gross domestic product (GDP) purchasing power parities (PPPs).

EXHIBIT 5
Public And Private Per Capita Health Care Spending In Ten Countries, 1998 Or 1999

- U.K.
- Sweden
- Japan
- Italy
- Australia
- France
- Germany
- Canada
- Switzerland
- U.S.

**SOURCE:** For U.S. figure, authors’ calculations. For all other countries, Organization for Economic Cooperation and Development, OECD Health Data 2000 (Paris: OECD, 2002).

**NOTE:** All figures have been converted to U.S. dollars using gross domestic product (GDP) purchasing power parities (PPPs). *1998.
Comment

Most Americans have private health insurance. Citizens of most other wealthy nations have national health insurance. Hence the perception that those nations’ health care systems are public while ours is private. But these labels obscure the predominance of private medical practice and hospitals in Canada and most European countries and the dominance of tax-financed health care in the United States. As shown in Exhibit 5, Americans now pay higher taxes per capita for financing health care than do any other nation’s citizens.

The huge role of the government in financing American health care is obscured by the fact that nearly one-third of these tax dollars meander through private insurers on their way to the patient’s bedside. What originates as taxes paid by private households ends up as recycled “private” spending in the CMS accounts. Insurance firms not only siphon off overhead and profits in the process, they also inflict huge paperwork burdens and costs on providers. We have detailed these costs in the past. For 1999 we estimate that health administration spending was more than $309 billion.16 At least half of this could have been saved through a shift to national health insurance.17 Disinterested civil servants, and even skeptics, agree that U.S. health care costs need not rise under national health insurance because administrative savings would roughly offset the increased costs of care for today’s uninsured and underinsured persons.18

While national health insurance wouldn’t cost Americans more, it would mean that taxes would pay a bigger share of health care costs and that private insurance and patients would pay a smaller share. Yet government now spends far more on health care—and national health insurance would require a smaller tax increase—than most Americans believe. The step from our current level of tax financing—59.8 percent—to Canada or Australia’s 70 percent is less steep than the CMS figures on public spending imply. About $130 billion per year—the amount of the recent tax cuts—would get us from here to there.

Regressivity of tax subsidies. The sub rosa character of much tax-financed health spending in the United States veils the regressive pattern of government funding. Highly visible Medicaid spending benefits the poor; obscure but burgeoning tax subsidies benefit the affluent who are most likely to have employer-paid coverage and whose higher marginal tax rates translate into greater tax savings.19 For instance, in 1998 federal tax subsidies alone averaged $2,357 for families with incomes above $100,000 but only $71 for families with incomes below $15,000.20

Impact on households. The complexity of U.S. health care financing also masks its impact on household budgets. In 1999 a family of four with the mean per person expenditures spent $17,432 (4 x $4,358) on health care: $7,016 for premiums (including the private employer-paid portion, net of tax subsidies) and out-of-pocket costs; and $10,416 in health care-related taxes. Of their taxes, $1,578 funded health-related tax subsidies; $943 paid for health benefits for public employees; and $7,895 paid for Medicare, Medicaid, and so forth. Even many uninsured Americans
“Were national health insurance to replace private coverage, employees or employers (or both) would gain taxable income.”

pay thousands of dollars in taxes for the health care of others.

- **Growth of tax-financed share.** The tax-financed share of overall health care spending nearly doubled between 1965 and 1999, jumping after the introduction of Medicare and Medicaid in 1966. Ironically, the ascendancy of market-based health policies in the early 1990s coincided with a second bump in the tax-financed share of health spending. The exuberant growth of for-profit medicine was nourished by generous dollops of tax dollars. The small dip in the tax-financed share in 1999 probably reflects both the booming private economy and an artifact (a discontinuity in the data sources for public employee benefits costs).

- **Government versus private employer purchasing role.** The federal government is now the largest purchaser of private coverage in the United States, followed by the State of California. Although only 19.4 percent of all civilian workers were public employees in 1999, local, state, and federal governments accounted for 22.5 percent of civilian employer health spending (up from 9.4 percent in 1965). While 64 percent of Americans have employment-based coverage, many of these are public employees, receive their principal coverage from Medicare or Medicaid, or purchase coverage through an employer but pay the whole premium themselves; private-sector employers contribute to the principal coverage of only 43.1 percent of Americans. But even this figure greatly overstates private employers’ role in funding care; they rarely pay the entire premium, and their contribution is tax-subsidized. Moreover, government picks up the tab for many of the costliest patients—the elderly and disabled. Private employers’ share of health spending in 1999 was at most 19.2 percent, under the extreme assumption that none of the tax subsidies accrue to employers. If one assumes the opposite extreme—that all of the tax subsidy for employer-paid coverage accrues to employers—their contribution falls to only 11.0 percent of health spending. Even the higher figure hardly justifies private employers’ enormous influence on health policy.

- **Comparison with other estimates.** Our estimates of tax subsidies in 1999 and 1985 are similar to previous estimates based on different methods. We may slightly overstate the SS tax subsidy if higher-income employees receive costlier health benefits than do covered employees with incomes below the SS income cap. Conversely, our estimate may understate state/local income tax subsidies if locales with high income tax rates have higher-than-average employer contributions for coverage. We excluded tax subsidies to not-for-profit hospitals ($6.3 billion in 1995), other health care providers, and pharmaceutical firms, as well as reduced payroll tax revenues due to the flexible spending account exemption. Hence, our estimate is probably conservative.

However, the value of current tax subsidies provides only a rough estimate of
the increased tax collections that would accrue if the tax subsidies were abolished. Were national health insurance to replace private coverage, employees or employers (or both) would gain taxable income, but many would find means to shelter part of this new income from taxes. A variety of other ripple effects would occur. Some insurance employees would lose jobs and income; employers’ costs to administer coverage would fall; and employees who have been reluctant to change jobs or retire for fear of losing coverage would face fewer constraints.

**International comparisons.** For international comparisons we used 1998 data for nations whose 1999 figures were not yet available. Because health care inflation has been modest in these nations, increased spending between 1998 and 1999 could not greatly affect our findings. The OECD figures for health spending in other nations do not adjust for tax subsidies for private health care spending or for government purchases of supplemental private health insurance for public employees. No comprehensive data are available to quantify these items. However, such uncounted government health spending must be small, since total private insurance expenditures are low. In any case, tax-financed health spending in the United States exceeds the total health budget—public plus private—of virtually every other nation.

Our health care financing system is usually portrayed as largely private. “Public money, private control” is a more apt description.

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This research was supported in part by grants from the Open Society Institute of the Soros Foundation and the Robert Wood Johnson Foundation. The authors thank Uwe Reinhardt and several anonymous reviewers for their useful comments on earlier drafts of this manuscript.

**NOTES**


2. The CMS figures for government health spending continue to include all Medicare and military health spending, even funds that now flow through private HMOs, presumably for historical reasons.


4. This category corresponds to the CMS definition of the public share of health spending. CMS Office of the Actuary, “National Health Expenditures.”


7. For the 1999 MEPS data on state/local government health benefit expenditures, see Agency for Healthcare Research and Quality, “1999 Employer-Sponsored Health Insurance Data: National Totals for Enrollees and Cost of Health Insurance Coverage for the Private and Public Sectors,” August 2001, www.meps.ahrq.gov/mepsdata/ic/1999/index199.htm (10 April 2002). The MEPS data are only available for 1996–1999. They appear to yield a lower estimate of state and local government spending for employee benefits than the CMS tabulations that we used for 1965–1995. Although the size of this discrepancy in public benefit costs is unknown, the MEPS estimate of total personal health spending is at least 6.7 percent lower than the National Health Accounts. See T. Selden et al., “Reconciling Medical Expenditure Estimates from the...


9. Specifically, we first calculated the 1975 income tax subsidy for employer-paid coverage as a percentage of employer-paid health benefits (14.46 percent) and the income tax subsidy for individuals’ deductions for out-of-pocket health spending as a percentage of total out-of-pocket health spending (6.23 percent). For our 1970 estimate, we multiplied these percentages by 1970 figures for employer-paid health benefits and out-of-pocket health spending, respectively. See Cowan et al., “Business, Households, and Government: Health Spending, 1994.” We then adjusted these dollar figures for the small change in effective income tax rate (total income taxes collected/total adjusted gross income) between 1970 and 1975. We generated the 1965 estimate in a similar manner.


11. Because high-income individuals are already paying the maximum SS payroll tax, they would pay no additional SS tax if they received income in lieu of tax-exempt health benefits. We analyzed the Annual Demographic Survey (March supplement) of the Current Population Survey (CPS), www.bls.census.gov/cps/ads/adsmain.htm (27 August 2001), to calculate the proportion of persons with employer-paid health insurance whose incomes exceeded that year’s SS income cap. We adjusted the estimated tax subsidy downward by this proportion. For instance, in 1999, 90.6 percent of persons with employer-paid health coverage had incomes below $72,600. Hence, the SS tax subsidy for 1999 is as follows: (Employer health benefit spending) × 12.4% × 90.6%. Because the CPS did not ask about employer-paid health coverage in 1975 and 1970, we based our downward adjustment for these years on the proportion of all workers with incomes above the SS cap. Because no CPS data of any kind are available for 1965, we based our adjustment for that year on the proportion of persons exceeding the SS income cap in 1970.

12. SSA, “Tax Rate Table.”


14. The employer-paid portions of SS and HI payroll taxes are exempt from income taxes. If health benefits were subject to taxes, the employer-paid portion of payroll taxes would rise slightly. To compensate for these increased payroll costs, employers would probably trim wages (L.J. Blumberg, “Who Pays for Employer-Sponsored Health Insurance?” Health Affairs [Nov/Dec 1999]: 58–61), lowering employees’ incomes and hence their income tax liability. In Jones’s case, she would receive not the full $6,000 as taxable in-


We estimated physicians’ billing and administrative costs by summing (1) the value of physicians’ time devoted to billing and administration (see D.K. Remler, B.M. Gray, and J.P. Newhouse. “Does Managed Care Mean More Hassles for Physicians?” Inquiry 37, no. 3 [2000]: 304–316); (2) the full payroll costs of office clerical staff, and an allocated share of payroll for other office personnel (see J.D. Wassenaar and S.L. Thran, eds., Physician Socioeconomic Statistics, 2000–2002 Edition [Chicago: American Medical Association, 2001]); and (3) an allocated share of the cost of office space and other professional expenses such as legal fees, accounting, and so forth, but excluding medical equipment and supplies (ibid.).

We estimated nursing home administration costs based on analysis of California data, www.oshpd.
Finally, using the 2000 CPS we calculated the total wage bill for administrative staff employed in health care settings other than hospitals, nursing homes, and practitioners' offices. Because our estimate excludes benefit or office space costs for these personnel, it understates actual administrative costs.


22. Data on government employment and total employment are from our analysis of the 2000 CPS. Our CPS analysis also shows that in 1999, 69.0 percent of public-sector employees had coverage paid for, at least in part, by their employer, versus 51.6 percent of private-sector workers.


24. The 19.2 percent figure is the total employer share of health spending minus the government employer share.


Part 3

Single-payer national health insurance is the solution

Talking point 5:
Single payer ensures access to high-quality health care.

Caring for the Uninsured and Underinsured

A Better-Quality Alternative
Single-Payer National Health System Reform

Gordon D. Schiff, MD; Andrew B. Bindman, MD; Troyen A. Brennan, MD, JD, MPH;
for the Physicians for a National Health Program Quality of Care Working Group

MANY MISCONSTRUE US health system reform options by presuming that "trade-offs" are needed to counterbalance the competing goals of increasing access, containing costs, and preserving quality.1,2 Standing as an apparent paradox to this zero-sum equation are countries such as Canada that ensure access to all at a cost 40% per capita less, with satisfaction and outcomes as good as or better than those in the United States.3,4 While the efficiencies of a single-payer universal program are widely acknowledged to facilitate simultaneous cost control and universal access, lingering concerns about quality have blunted support for this approach.

See also p 797.

Quality is of paramount importance to Americans. Opponents of reform appeal to fears of diminished quality, warning of waiting lists, rationing, and "government control."5 Missing from more narrow discussions of the accuracy of such charges is a broader exploration of the quality implications of a universal health care program. Conversely, advocates of national health insurance have failed to emphasize quality issues as key criteria for reform,6 often assuming that we have "the best medical services in the world."7 They portray reform primarily as extending the benefits of private insurance to those currently uninsured, with safeguards added to preserve quality.

We disagree with both views. It is unthinkable to label our current system as "highest quality," given its frequent failure to provide such basic services as immunizations or prenatal, primary, and preventive care. Moreover, there is growing concern about quality problems with the care that is provided. Quality problems in the current system include denial of care, discrimination,8 disparities, geographic maldistribution,9 lack of continuity, lack of primary care,10 inadequate or lack of prenatal care,11 failure to provide beneficial prevention,12 substandard/incompetent providers,13 declining patient satisfaction and impersonal care,14,15 iatrogenesis (negligent adverse events),16 diagnostic errors,17 unnecessary procedures/surgery,18 suboptimal medication prescribing/usage,19 and neglect of quality-of-life/psychosocial issues.20 Our "highest-quality" complacency is especially challenged by insights from two seemingly disparate sources: (1) epidemiologic research based on financial claims databases and (2) industrial quality improvement concepts pioneered in Japan. These two sources converge around the concept of "variations," illuminating widespread differences in clinical practice, further challenging the cost-access-quality trade-off assumption. Data and insights from these two new paradigms demonstrate that better care will actually cost less once improvements are made in care processes and clinical decision making.21,22

The health system must work better to extend access and to control costs. In this article, we argue that a single-payer national health program provides a better framework for improving quality. First, we briefly review requirements for quality care. Then, we propose 10 principles that should be integral to reform strategies to augment quality. We contrast our approach with the current managed competition strategy,23 showing how a single-payer system is more likely to facilitate these 10 interrelated quality features.

WHAT IS QUALITY?
HOW CAN IT BE MEASURED?

High-quality care should result in improved health for individuals and the entire community. It depends on knowledgeable, caring providers who have a thorough understanding of preventive, diagnostic, and therapeutic strategies and the link between their application and improved health outcomes. Such strategies need to be applied with the highest technical skill and carried out in a humane, culturally sensitive, and coordinated manner. Quality will suffer when any of these components is lacking.

There is no single gold standard measurement of health care quality; its assessment requires multiple perspectives. The care provided to the population as a whole as well as to individual patients should be evaluated because critical quality issues may affect individuals who do not have access to medical services. Viewpoints of providers, patients, family members, and the community must be incorporated. Evaluated services should not be limited to medical care but should also include related services, such as nursing services, social services, and community education. To judge quality, we need a lengthened time frame that allows not only for examination of longer-term impacts but also for changes over
time in what is considered good care. Finally, quality should be judged in the context of costs, because when equally good care is provided at a lower cost, more resources are available for other services.

Although consensus has emerged around many of these precepts, there is disappointment over the extent to which their fragmented application has actually improved care. This meagerness of demonstrated benefit is especially worrisome given providers' frustration with the time and administrative hurdles imposed by current oversight measures. Promising efforts to operationalize these precepts on a larger scale (ie, Agency for Health Care Policy and Research, the Joint Commission on Accreditation of Healthcare Organizations' Agenda for Change, and Medicare's Quality Improvement Initiative) will continue to have limited success if not linked to more fundamental changes in health care finance and delivery. This will require health system reform based on the application of quality assurance tools and insights, guided by the principles outlined below.

**TEN PRINCIPLES FOR IMPROVED QUALITY**

1. There is a profound and inseparable relationship between access and quality: universal insurance coverage is a prerequisite for quality care. Because quality must be population based, traditional definitions of quality should be broadened to include the gravest of quality deficits—denial of care. The most important prerequisite for access is health insurance. To delay universal coverage for years, as projected in the Clinton plan and various congressional health proposals, means the continuation of compromised quality for millions of people.

Growing evidence from large observational studies underscores this strong relationship between quality and access/insurance status:

- The hospitalized uninsured are 2.3 times more likely to suffer adverse iatrogenic events.
- The loss of Medicaid coverage has been associated with a 10-point increase in diastolic blood pressure and a 15% increase in the hemoglobin A1c level in diabetic patients, increasing the odds of dying within 6 months by 40%.
- The uninsured poor are twice as likely as those with private insurance to delay hospital care among those delaying care, hospital stays are longer and death rates are higher.
- Being uninsured was associated with twice the 15-year mortality (18.4% vs 9.6%); even after adjusting for major health risk factors, mortality remained 25% higher.
- Lack of health insurance is associated with failure to receive preventive services, including blood pressure monitoring, Papanicolaou tests, breast examinations, and glaucoma screening.

This profound connection between quality and access extends far beyond simply underserving the uninsured. Access problems threaten quality for those with insurance who encounter delays and overcrowding in emergency departments or with patients lacking primary care. For the insured, limitations on benefits, including financial barriers (such as co-payments, restrictions in coverage, and rationing via administrative obstacles), increasingly obstruct care. Most important, quality is distorted when ability and willingness to pay become the criteria for determining which services are provided. Marginally effective or even harmful treatments for the well-insured affluent take priority over more needed and appropriate services.

2. The best guarantor of universal high-quality care is a unified system that does not treat patients differently based on employment, financial status, or source of payment. This principle embodies Eddy's health care "golden rule": If a service is necessary for oneself, it is necessary for others. We reject the notion that different people are entitled to a different quality of care.

The quality-imparing consequences of separate classes of insurance are illustrated by Medicaid, whose recipients, though "insured," are often refused care or provided substandard treatment. For many medical services, access for Medicaid patients is little better than for the uninsured (D. U. Himmelstein and S. Woolhandler, unpublished tabulations from the 1987 National Medical Expenditures Survey). Similarly, universally available lowest-tier coverage, such as that proposed under managed competition, with more or better services only for those able to afford to upgrade their benefits, violates this principle and would perpetuate inequalities in health care.

The equality principle is a prerequisite to grapple meaningfully with ways to control marginally effective expensive interventions. Otherwise, limits based on ability to pay are, by definition, discrimination against the poor.

Under a multitiered system, patients and providers internalize an "everyone for himself or herself" ethic, eroding incentives for improving the system overall. A cohesive system based on fairness and equality could harness each citizen's desires for quality care to drive system quality upward. It would promote mechanisms for individual complaints to be linked to system-wide improvement rather than dissipated as special privileges. It would ensure that the quality of the basic plan is high enough to be acceptable to all citizens. Proposals that allow individual or corporate "opting out" of publicly defined benefit packages erode this quality-enhancing covenant. Hence, a single program not only minimizes discrimination against the vulnerable but also promotes improvement overall.

3. Continuity of primary care is needed to overcome fragmentation and overspecialization among health care practitioners and institutions. Patients need care coordinated by the primary care provider of their choice. Whether evaluating a confused elderly patient or discontinuing aggressive care to a patient with emphysema, a continuing physician-patient relationship is the essential foundation that allows physicians to practice conservative, sensitive, appropriate, cost-effective medicine. Competitive models that encourage patients to switch among competing plans discourage ongoing relationships. Competition also blunts incentives for prevention because the resulting savings are likely to accrue long after the patient has switched to a rival plan.

As practitioners, we do quality work when patients can trust that we will be available with the time, independent judgment, and familiarity with their problems to give them skillful personal attention. Cost-containment efforts designed to limit utilization have counterproductively undermined this primary caring role. Erecting financial barriers to discourage contact, penalizing the primary practitioner for ordering tests and consultations, and intrusive utilization review measures have contributed to growing dissatisfaction with primary care practice.

4. A standardized confidential electronic medical record and resulting database are key to supporting clinical practice and creating the information infrastructure needed to improve care overall. Information technology should allow us to zoom in to focus on the microdetails of why a particular clinical decision was made, as well as give a macro-overview of disease patterns in populations. Its memory should permit panning backward and forward in time, seeing our own patients' past histories, as well as aggregating data to project disease natural history and response to interventions.

Unfortunately, implementation of medical computing has been driven by
insurance/billing imperatives, often ignoring information needs for improved patient care. The Institute of Medicine Committee on Improving the Medical Record has documented the ways that paper-based medical records and computerized laboratory and claims data fail to coalesce into integrated patient care records, capable not only of storing patient data but also of improving the quality of care. Consider routine yet currently difficult clinical decisions, such as whether a patient's wound requires a tetanus shot, or a positive syphilis serology result requires treatment, or a decreased hematoctrit requires further workup. Computer technology should permit us to track patients over time across multiple sites and support high-quality clinical decision making. Its potential for real-time reminders, prescribing, and bibliographic assistance is vast but unrealized.4,46

Realizing the computer's quality support potential hinges on strong guarantees of personal data confidentiality,44 uniformity and integrity of data systems, availability of aggregate data in the public domain,46 and minimization of costs, especially for software development and data acquisition. Creating national standards for protection of patients' privacy is one of the most important issues that health system reform must address, yet prospects for federal leadership appear to be confused and uncertain.57,58 The United States lags behind other countries in developing a secure clinical information infrastructure because it lacks a unified approach. No public entity has sufficient scope or authority to spearhead this project.59

Despite a lengthy section on information automation, the Clinton proposal perpetuates the primacy of financial data to the neglect of clinical information by calling for computerized billing but not computerized patient care records.56 Furthermore, managed competition compromises this crucial tool for advancing the public's health by fragmenting information among competing health plans and creates incentives for distortion (ie, "diagnosis creep") that arise when data are linked to financial rewards.51

5. Health care delivery must be guided by the precepts of continuous quality improvement (CQI). Improved data combined with statistical thinking can be used to monitor quality, uncover problem areas, and institute improvement.30,34 The following five points summarize the CQI principles:

- Systems improvement: addressing underlying causes of problems rather than inspecting for and micromanaging individual practice variations.
- Teamwork and cooperation: shift from fear, individual blame, and competition toward cooperation to improve interactions within and between organizations.
- Overriding commitment to quality: quality should be the foremost mission and central preoccupation of health system leaders and reform efforts; cost savings derive from this primary commitment to quality.
- Improvement of processes: quality can be continually improved by study, innovation, and simplification of the numerous small steps involved in performing daily tasks, leading to an organizational atmosphere of experimentation and productive change.
- Empowerment of workers and customers: frontline workers must have the authority, resources, and statistical tools to conduct process improvements. Patients' voices must be amplified so that their needs can be better addressed as the central aim of health care.

Current widespread endorsement of CQI belies a continuing focus on external inspection, short-term financial gain as the measure of success, inefficient cost-control measures, and disruptions of physicians' relationships with patients and colleagues as employers and insurers seek the lowest price (New York Times. January 24, 1993:1).22,41,43,54 Under our current system, each insurer must protect its financial stake through these shortsighted measures that disrupt overall quality. Well situated to exercise such undesirable options, insurers cannot risk the long-term commitments to patients and providers, plus loss of management prerogatives, inherent in the five elements of CQI.

Improving individual providers' care can be best accomplished via supporting their ability to practice quality care coupled with pooled outcomes data and patient feedback. This contrasts to the current punitive, exclusionary, and competitive approaches. The thrust of CQI is to improve the norm of performance rather than to merely identify outliers. Where individual competence and performance shortcomings do exist, they must be conscientiously evaluated and definitively resolved. Continuous quality improvement creates a climate and provides tools to accomplish this more fairly and constructively.

6. New forums for enhanced public accountability are needed to improve clinical quality, to address and prevent malpractice, and to engage practitioners in partnerships with their peers and patients to guide and evaluate care. Patients' and practitioners' mutual desire to redress and prevent suboptimal medical outcomes should make them natural allies. Instead, we are witnessing growing antagonisms. The narrow emphasis on antagonistic all-or-none approaches, such as lawsuits, or exiting one plan for another, constrains consumers from maximally exercising choices, sharing in decision making, and being genuinely involved in oversight and helping to prevent malpractice.

The Harvard Malpractice Study demonstrated that one in 25 hospitalized patients suffered a disabling iatrogenic injury, one quarter of these as a result of negligence.39 Recoupling consumers' legitimate demands to improve this performance with the need to protect confidentiality, the need to nurture candid professional introspection, and the current inadequacy of outcomes data for judging quality,55 poses difficult challenges. This requires trust and cooperation. Although we believe that a no-fault approach to malpractice is most consistent with the logic of CQI (which seeks prevention over blame) and universal coverage (which would already provide lifetime health benefits for iatrogenic injuries, thus obviating the need to sue for such benefits), additional research is needed on questions of deterrence and effectiveness.

Just as the concept of informed consent was once foreign, today's physicians are unaccustomed to thinking constructively about creating a health sphere in which difficult issues and alternatives are openly discussed. Gathering data about care practices and turning those data into information to be shared with peers and the public must become a key ethical duty.60,62,67 New vistas for more public yet scientific and collegial oversight include designing and evaluating practice guidelines; evaluation of patient satisfaction, complaint, and outcomes data, such as delayed or missed diagnoses; ombudsman programs; alternative ways to adjudicate malpractice allegations; interactive decision-making computer technology,60 and more meaningful regulatory activities.61-64

In the event of a medical mishap or untimely death, patients or relatives want an explanation and an opportunity to ask questions and receive full and honest answers, things we often fail to provide.65 For centuries, the autopsy has fulfilled an important "convening" function for the profession to engage such questions and admit mistakes (unfortunately this valuable tool is increasingly neglected).66 Practice databases may facilitate an analogous convening forum for bringing together the profession and the public to examine our record, thereby fulfilling our obligations for expanded public accountability.

7. Financial neutrality of medical decision making is essential to recon-
cile distorting influences of physician payment mechanisms with ubiquitous uncertainties in clinical medicine. Payment incentives may distort the quality of medical services. Fee-for-service favors excessive use of services, while capitation payment may encourage under-treatment. To lessen this tendency for physician payment to distort treatment decisions, we must strive to remove personal financial considerations from clinical decision making.

Self-referral by physicians to medical facilities from which they profit is a particularly egregious example of a financial incentive distorting a physician's practice. Physician ownership of diagnostic imaging centers is associated with a referral rate four times that of their noninvesting physician colleagues. Similarly deplorable are managed care arrangements that directly tie physicians' incomes to withholding referrals for diagnostic tests, specialty consultation, or hospitalization. These arrangements create an unacceptable conflict between a patient's welfare and a physician's financial interest. Even not-for-profit physician networks, portrayed by Clinton plan advocates as alternatives to insurance company or managed care inducements, perpetuate this conflict of interest when they make providers assume "financial risk" for their patients.

Physicians do need to make more cost-conscious and cost-efficient decisions. However, we reject approaches that expect improved decision making to derive from tinkering with physician rewards. The problem is not insufficient motivation; it is uncertainty which, as many have noted, is ubiquitous in medicine. Financial incentives to manipulate physicians more or less conceal rather than address our clinical knowledge deficits. Physicians respond best to efforts, based on their intrinsic values, that motivate and involve them directly in improving patient care. Even when forced to choose between maximizing patient outcomes over their own financial gain, physicians typically choose to improve care.

We recognize that financial neutrality is an ideal. No payment mechanism completely eliminates the influence of payment on treatment. For example, while payment by salary separates day-to-day clinical decisions from financial considerations, it can encourage under-treatment or the avoidance of more complex patients who require expensive care. The current British approach, capitation supplemented with added fees for preventive services and complex cases, illustrates one possible alternative. Such arrangements at least channel incentives toward mutually agreed on positive objectives rather than creating conflicts and lack of trust that poison provider-patient relationships.

8. Emphasis should shift from micromanagement of providers' practices to macroallocation decisions. Public control over expenditures can improve quality by promoting regionalization, coordination, and prevention. The uncontrolled proliferation and duplication of expensive technology in our present system, considered by some the sine qua non of US high-quality care, both adds to cost and detracts from quality.

For example, because we have too many mammography machines, each is underutilized. This doubles the cost of each test. As a result, many women cannot afford screening. Thus, because we have too many mammography machines, we have too little breast cancer screening.

For technically complex procedures, an inverse relationship between volume and mortality rates has generally been observed. Yet, in the RAND priateness study, one-fourth of the surgeons performing carotid endarterectomies did only one such procedure per year (on Medicare patients). Three of four surgeons performed fewer than 10 endarterectomies—the average annual number performed by these surgeons was 3.4, a number most would consider too few to maintain proficiency.

Hospitals compete for patients by establishing competing specialized services rather than cooperating to establish one high-quality unit. Two decades of "regional planning" requiring certification for more costly capital expenditures have shown that, absent more direct financial control of capital allocation, such regulatory efforts have not succeeded.

Reorientation toward macroallocation broadens quality horizons in many ways. Establishing "fences" that prospectively define available resources means that less energy and money are wasted micromanaging each decision, and more energy is directed toward overall quality. A child scolded to clean his plate because there are children starving in Africa may reasonably question the logic. Refusing intensive care unit treatment to an elderly patient because the resources could be better used for prenat al care is similarly hard to justify if we lack a structure to redirect the resources. Global budgets allow managerial energies to be redirected away from maximizing revenue, improving market share and expansion, toward improving quality.

Competition gurus rely on report cards to allow marketplace choices to drive competition toward better quality. They overestimate the precision of measurements at the level of the individual provider or health plan (New York Times, March 31, 1994:A1, A11) as well as the higher "leverage" potential of coordinated system improvement. Because existing measures lack precision, cost may end up being the only "objective" measure. Berwick has argued that quality needs to be induced rather than selected. Measuring performance ought to be aimed more at improving quality than at lubricating competition. Such improvement requires leadership committed to improving each component of the system as well coordinating its various elements.

9. Quality requires prevention. Prevention means looking beyond medical treatment of sick individuals to community-based public health efforts to prevent disease, improve functioning and well-being, and reduce health disparities. These simple goals, articulated in Healthy People 2000, remain elusive. Nine preventable diseases are responsible for more than half of the deaths in the United States, yet less than 3% of health care spending is directed toward prevention.

Private health insurance attaches funding only to individual patients and thus separates the funding role and control from that of representing broader societal interests. Insurance companies discovered risk factors, such as hypertension, yet they used this insight primarily to exclude high-risk individuals. This fragmenting of the community places both sick people and the social causes of disease outside the boundaries of medical care. Although rhetorically "prevention is cheaper than cure," selective preventive measures probably increase costs. This, combined with high patient turnover rates and short-term financial orientation, gives private insurers little incentive to invest in prevention.

Health care financing should facilitate problem solving at the community level. Community-based approaches to health promotion rest on the premise that enduring changes result from community-wide changes in attitudes and behaviors as well as ensuring a healthy environment. Stores that refuse to sell tobacco to minors and promote low-fat foods, schools that teach avoidance of human immunodeficiency virus infection, and a health department that can guarantee clean air and water have a more vital role in ensuring health than does private health insurance. According to Enthoven, the originator of managed competition, its "goal is to divide providers in each community into competing economic units." Capitation payments to competing providers, in theory designed to motivate prevention, thus
fracture the community and make community-based interventions more difficult because no provider has a population-based purview.

10. Affordability is a quality issue. Effective cost control is needed to ensure availability of quality health care both to individuals and the nation. Good-quality care should not mean expensive care; if it does, it will not be available to most citizens. Flawed cost control reduces quality in many ways. It diverts resources from legitimate health needs, increases iatrogenic risks, and leads to financial barriers to care. These harmful impacts derive both from failure to contain costs and "side effects" of ill-conceived cost-control measures.

Despite multiple cost-control measures during the past two decades, costs continue to escalate. These measures have failed to slow growth of administrative costs, improve efficacy, curb ineffective or marginally effective services, or rein in excessive managerial or professional salaries or profits. Moreover, many cost-control initiatives have encouraged providers to discriminate against less profitable patients and increase their focus on fiscal rather than clinical goals.

The most prevalent approach to containing costs has been patient "cost sharing." Financial barriers have serious quality-impairing potential unless they are adjusted to patients' need for care and ability to pay. It is impossible to erect a barrier high enough to discourage unnecessary care, low enough that needed care is not deterred, and simultaneously adjusted to a patient's discretionary income. Donabedian argues that "even if such adjustments were made, financial barriers would remain too blunt an instrument for assuring a precise calibration of care to need." The RAND Health Insurance experiment confirmed this, finding that "changing economic incentives can alter the amount of care consumed, but implementing such incentives appears to increase or decrease proportionately both appropriate and inappropriate use."

CONCLUSIONS

Private insurers and employers have regularly sought cheaper care and to avoid paying beneficiaries' bills, but have rarely advocated better-quality care for patients. Health reformers in the United States should heed lessons learned in other industries. An obsession with cutting costs rather than with quality leads to both suboptimal quality and higher costs. Systems based on trust and common purpose achieve far more than those based on barriers and competition. In addition, solutions that tamper with a system, increasing complexity, are inferior to those that simplify the way a job is done.

Health-financing reform provides a pivotal opportunity to improve the quality of health care. We believe that a single-payer national health program provides the most effective framework for implementing the quality-enhancing principles discussed above.

A managed competition strategy, such as that proposed by the Clinton administration and debated in Congress, while designed to provide universal access, has not demonstrated an ability to contain cost and creates a complex structure with separate and unequal multitiered care. Escalating the easily enforceable budgetary constraints of the single-payer approach necessitates reliance on potentially damaging financial incentives, wasteful micromanagement, and complicated budgetary regulation to minimize spending. Accountability, achievable only if patients are maximally empowered and involved, is structurally nurtured by an open and publicly controlled funding process and impeded under managed competition by multiple intermediaries between providers and patients. Effective implementation of computers in clinical medicine would be retarded by pecuniary interests favoring proprietary data and incompatible software formats and enhanced by public development, ownership, and standards. Global budgeting facilitates directing national resources based on the needs derived from these epidemiologic data, whereas competition ensures that resource allocation will depend on profitability.

No amount of regulation and oversight can breathe quality into a system that is not based on caring professionals working for patients. There is little empirical evidence that report cards and regulatory constraints can reliably separate "good" from "bad" care. The technical capabilities of such measures are too imprecise, and incentives for gaming are too great. Such measures encourage mindless efforts to meet concrete, but in many cases tangential, criteria while emphasizing sanctions and policing, which run counter to the CQI principles that empower workers to think innovatively about processes. Regulation cannot revitalize a system controlled by financial institutions driven by fiscal incentives that reward both efficiency and fraud, quality care as well as neglect of patients' problems. More regulatory and administrative overhead does mean less time and resources for patient care. A single-payer system is not a panacea for resolving these problems. What it does offer is a framework for collectively engaging these issues in a fair, cohesive, and effective fashion. The 10 principles outlined above, while neither a detailed blueprint of how a US single-payer system should work nor a point-by-point critique of alternative reform proposals, suggest that important opportunities to improve quality would be compromised were the United States to settle for a managed competition approach.

Rather than being a code word for the status quo, quality must become a pivotal guide for change. A unified system emphasizing cooperation, democratic accountability, and explicit planning is preferable to a fragmented approach with accountability abdicated to success or failure in the market and planning forsaken in favor of resource allocation based on profitability. Only this preferred approach to system design can lead us to a qualitatively better system, one that instills a sense of ownership and pride in its patients and providers.

We thank Ann McKinnon for editing assistance. The 18 members of the working group that drafted this report were as follows: Dr. Schifft (chair), Dr. Bindman, Thomas Bodenheimer, MD, MPH, Dr. Brennan, Carolyn Clancy, MD, Oliver Fein, MD, Ida Hollander, MD, David U. Himmelstein, MD, Linda R. Murray, MD, MPH, T. Donald Rucker, PhD, Ron Sable, MD (deceased), Jeffrey Savorn, MD, Ronald Shamsky, MD, Ellen Shafter, MPH, David Slobožek, MD, MPH, Steve Tarzynski, MD, MPH, Stoffle Woolhandler, MD, MPH, and Quentin B. Young, MD.

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Part 3

Single-payer national health insurance is the solution

Talking point 6:
Every other industrialized, capitalist country has some form of non-profit national health care.


Health care systems in the Organization for Economic Cooperation and Development (OECD) countries primarily reflect three types of programs:

1. In a single-payer national health insurance system, as demonstrated by Canada, Denmark, Norway, Australia, Taiwan and Sweden, health insurance is publicly administered and most physicians are in private practice. U.S. Medicare would be a single payer insurance system if it applied to everyone in the U.S.

2. Great Britain and Spain are among the OECD countries with national health services, in which salaried physicians predominate and hospitals are publicly owned and operated. The Department of Veteran’s Affairs would be a U.S. single payer national health service system if it applied to everyone in the U.S.

3. Highly regulated, universal, multi-payer health insurance systems are illustrated by countries like Germany and France, which have universal health insurance via non-profit “sickness funds” or “social insurance funds”. They also have a market for supplementary private insurance, or “gap” coverage, but this accounts for less than 5 percent of health expenditures in most nations.

Sickness or social insurance funds do not operate like insurance companies in the U.S.; they don’t market, cherry pick, set premiums or rates paid to providers, determine benefits, earn profits or have investors, etc. In most countries, sickness funds pay physicians and hospitals uniform rates that are negotiated annually (also known as an “all-payer” system). Princeton economist Uwe Reinhardt calls Switzerland’s “sickness funds” quasi-governmental agencies.

There is no model similar to sickness funds operating in the U.S., although they are often confused with the Federal Employee Health Benefit Program (FEHBP), which is simply a group of for-profit private insurance plans with varying benefits, rules, regulations, providers, etc. The 1993 Clinton health plan was an attempt to regulate private insurance companies in the U.S. to behave more like sickness funds, but the insurance industry defeated it.

Bottom line: The most important point for single payer advocates is that every country with universal coverage has a non-profit insurance system. No country uses for-profit, investor-owned insurance companies such as we have in the U.S. (although they do have a small role in selling “gap” coverage).

Notes:

* The three basic models are general outlines, and there are many examples of “mixed models” (e.g. although Sweden has national health insurance, the hospitals are owned by county government, a feature more common to countries with a national health service).

** Many countries are tinkering with how sickness funds operate (e.g. Germany). The most extreme change is in the Netherlands, which since 2006 has allowed the non-profit regional sickness funds to become for-profit insurance companies, and new insurance companies to form, in the hope that “competition” would control costs. After just one year of experience, the country has experienced 1) a wave of anti-competitive mergers of the insurers 2) emergence of health plans that “cherry pick” the young and healthy and 3) loss of universal coverage and the emergence of 250,000 residents who are uninsured and 4) another 250,000 residents who are behind on their insurance payments. All of the positive data from the Netherlands (on costs, infant mortality, quality, etc) is based on the system pre-2006 (personal communication, Hans Maarse).

*** In the film “Sick around the World” five nation’s health systems are shown. The U.K. is an example of a single payer national health service. Taiwan is an example of a single payer national health insurance. Germany, Japan, and Switzerland use multiple “sickness funds” that are non-profit and pay uniform rates to providers (“all-payer”).

The OECD regularly publishes a CD-ROM with 10+ years of comparative data for those interested in pursuing further research. It is available on the OECD website at www.oecd.org

Comparative studies of several nations’ systems by Gerard Anderson at John Hopkins are on the Commonwealth Fund web site, www.commonwealthfund.org
PBS Frontline Interview with T.R. Reid, Fall 2008

T.R. Reid is a veteran foreign correspondent for The Washington Post, a commentator for National Public Radio and the author of nine books, including three in Japanese. He is currently working on his 10th book, titled We’re Number 37!, in which he compares America’s health care system to others around the world. It is scheduled to be published by Penguin Press in early 2009.

How did you choose the five countries featured in this report?

Two of our choices, Britain and Japan, were pretty obvious. I had lived in both countries, I had doctors there and knew the systems. I could speak the language, sort of, in both places.

Beyond that, we were looking for examples of each of the established models of health care systems. The U.K. uses the Beveridge model; Taiwan has chosen the Canadian-style National Health Insurance [NHI] model; Germany, Japan and Switzerland use the Bismarck model. We went to three Bismarck countries on the theory that these private-sector systems are more relevant to America than a British-style National Health Service.

I got interested in Taiwan because Taiwan’s Health Ministry did what our film does; it traveled the world studying health care systems. In the end, Taiwan chose the Canadian model. We went to Switzerland because it is a ferociously free-market economy with politically powerful insurance and drug companies. But still, the Swiss managed to revamp their system, making it cheaper and fairer. We thought that might inspire Americans to believe that change is possible here, too.

You and your family lived in London and Tokyo; what was your experience with the health care systems there?

Our American family used the health care systems in Japan and Britain with considerable satisfaction. Fortunately, we never had a heart attack or cancer, but for the normal family medical problems -- flu, measles, broken bones, earache, etc. -- we got excellent care, with little or no waiting. During a trip to South Asia, I contracted a mysterious tropical disease that left me sick as a dog. When I got back to London, our family doctor diagnosed the problem precisely and found a fast cure.

In Japan, the prices were low; in Britain, there was no price at all. There was no bill! I loved that part of British health care.

In Japan my local government, Shibuya-ku -- it’s a part of Tokyo -- sent me a card every year on my birthday, urging me to get a comprehensive physical. I could go to any doctor or hospital in Shibuya, and the whole thing was free. When I did it, they checked everything -- and I mean everything -- that a man my age might have to worry about. This was a terrific example of preventive medicine.

In your upcoming book about health care you write about the five countries in this FRONTLINE report, as well as a few others. What are some of the good ideas America could learn from other countries?

As we say in the film, the World Health Organization studied every health care system on earth and rated the world’s richest country 37th in terms of quality and fairness. The top ranking in that survey went to France, so I went there to see what they are doing right.

The French private insurance system covers all 61 million residents of France, with excellent health results. There’s no “in-network” or “pre-authorization”; you can pick any doctor or hospital in France, and insurance has to pay the bill. Doctors are required to post their prices on the wall of the waiting room, so the mystery of American-style
medical billing is removed.

Everyone in France has a green plastic card, the carte d’assurance maladie. That card has completely replaced paper billing and medical records. The result: administrative costs of 3 percent, compared to 25 percent in the U.S.

While France has achieved 100 percent digital record keeping, the U.S. is years behind on this technology. President Bush has made it a national goal to have 50 percent of American health records in digital form by the year 2014. Who would have thought that France would clean our clock when it comes to high-tech innovation?

The Austrians, who seem to do everything with a clockwork precision, have a precise, modern health care system that is a model of careful organization and cost control. But I think Austria may be too small and not diverse enough to be a model for the U.S.

Canada's system is also pretty good. It has some notorious problems, including waiting lists, but I was impressed by Canada's relentlessly egalitarian approach to health care.

Yes, Canada is one country in particular that many Americans think about when they think of health care. Can you talk a bit about their system: how it's paid for, what works well, what needs fixing, and what we Americans get right and wrong when we talk about it.

Canada uses a National Health Insurance model; that means private providers but public financing. Everybody pays a premium to a single health insurer, run by the government. The Canadians call their system “Medicare,” and in fact our system of Medicare for the elderly is a good example of the Canadian-style National Health Insurance model.

Canada's system started in a single province, Saskatchewan. The other provinces saw that it was working, and people demanded that it be expanded to the whole country. This suggests that if one American state set up a sort of Medicare-for-all system and it worked, then other states might demand the same kind of plan, and eventually we’d get a national system.

As we said in the film, the Taiwanese hired a professor at Harvard to study health care systems around the world and choose a model for Taiwan. In the end, they picked the Canadian model, on the grounds that it is cheaper and fairer than the for-profit insurance system used in the U.S.

Canada is fairly stingy in paying for health care; it spends about half of what we do, on a per capita basis. This leads to scrimping. That’s why Canadians often have to wait to see a specialist or have elective surgery. Some Canadians respond by crossing the border to buy treatment in the U.S. But most Canadians accept the delays, because they are roughly equal for everybody. A scholar there put it this way: “Canadians don’t mind waiting lines, as long as the rich Canadian and the poor Canadian have to wait about the same amount of time.”

There was another recent documentary about health care around the world: Michael Moore’s Sicko. Did you have that film in mind when you set out to make this report?

I thought Michael Moore did a good job in describing the shortcomings of the U.S. system. He didn’t pay much attention to our strengths: the best medical education in the world, the most innovative research, the best equipped hospitals. He is an advocate and had a point to make.

But Sicko was disappointing when Moore went overseas. He seemed to feel that all foreign health care systems are the same, that they are all “socialized” and that they all work great for low cost. I’d say that’s simplistic and wrong. We set out to take a more careful look at the different models in different countries. We saw their problems as well as their successes.

All five of these countries have achieved universal coverage for their citizens, but all five are grappling with rising costs as well. Is this simply a worldwide problem, or is there a fundamental difference between America’s rising health care costs and those in other countries? Which countries may be better able to keep a lid on them, and why?

Health care costs are rising everywhere, largely because health care is getting better. Doctors routinely save lives now that would have been lost a decade ago. A lot of this is due to new technology, and new technologies cost
money. We shouldn't complain about this. It's hard to imagine anything more worth our money than good health and longer, happier lives. But this is the reason all the countries we visited are struggling with rising costs for health care.

In countries where there is a single health care system -- and thus a single pool of money to pay for it -- it is somewhat easier to control costs. Britain's NHS often decides, for example, that it won't pay for kidney dialysis for a 90-year-old. That means somebody's grandmother will die, but at least Grandma and her relatives know that the money saved is going to be used to help some sick baby or some accident victim.

Limits like that are harder to impose in the U.S. because the money saved here doesn't necessarily help another sick person. If Aetna or United Health declines to pay for somebody's dialysis, the money saved is likely used for dividends to the stockholders or bonuses for the executives. That's a little harder to swallow for the relatives of the sick patient.

It was interesting to learn in the report that some of Switzerland's drug companies make one-third of their profits in the U.S. market. Are we subsidizing these other nations' prescription drugs, and what would happen if America clamps down on prices?

Yes, we subsidize the whole world. Americans pay more for pills than people in any other country. Sometimes, the same tablet made in the same factory costs $1 in the U.S. and 20 cents in Britain. If we could negotiate lower prices in the U.S., the drug companies would then try to raise prices overseas to make up for the lost revenues.

The pharmaceutical industry spends billions on research. Drug companies say they would have to reduce R&D if Americans paid less for their drugs, but the companies spend more on marketing than they do on research. In Switzerland, when the government started negotiating lower prices for drugs, the companies cut their marketing budgets and maintained the level of R&D.

For the first time since 1992, health care is, according to a Kaiser Foundation poll, a top-three concern for voters, after the economy and Iraq. Do you think that reform is going to happen this time?

Yes. I am confident that we're going to do it. I think Americans are ready for fundamental change, for two reasons.

First, our system is so expensive and inefficient that we can't afford it anymore. It's a big competitive disadvantage for U.S. industry. Second, Americans are too decent and too generous to accept a system that leaves tens of millions of our fellow citizens without access to health care. [According to the Institute of Medicine,] about 18,000 Americans die each year because they can't get the medical treatment that would save their lives. That's morally unacceptable.

So I think both the fiscal and the moral imperative will drive us to major change in 2009.

You note at the end of the report that none of the 2008 presidential candidates' plans really encompass the ideas you found abroad. Do you think there's a distinctly American approach that can solve the problems in our system?

To me, the candidates all seem to be tinkering at the margins of a system that needs fundamental change.

What we've learned overseas is that successful national systems have settled on one model -- be it Beveridge, Bismarck or NHI -- for everybody. This is fairer, cheaper and far more efficient than our badly fragmented crazy-quilt system.

I don't think the systems we see in our film are un-American. The British system -- the Beveridge model -- is the same system used by the U.S. Veterans Administration. If this is un-American, why do we use it for America's military heroes? And the Canadian system -- the National Health Insurance model -- is the model for Medicare. If it were un-American, would we use it for 36 million elderly Americans?
This is not the first project you've done that looked at how other nations address social issues differently -- and often with better results -- than the United States. Has this approach drawn criticism that you're being too hard on America?

Anybody who dares say that other countries do anything better than America is liable to be called unpatriotic.

I wrote a book, *Confucius Lives Next Door*, pointing out that East Asian countries in the Confucian cultural sphere have much lower crime rates than the U.S., more stable families, almost no single mothers. And when I went on talk radio to promote this book, the hosts would say, “You hate America,” or, “Well, if Asia is so much better, why don’t you just move there?”

In fact, facing up to your country’s problems and trying to fix them is a sign of love for your country. The person who really cares about his college, his company or his country is the person who recognizes its shortcomings and tries to improve things. And one excellent way to do that is to study how other colleges, companies and countries have dealt with the same problem.

There are many cherished elements of American life that we copied from other countries: the Interstate Highway System (Germany), text messages (Finland), sushi (Japan), and *American Idol* (Britain). So it can’t be unpatriotic to suggest that we could cure our ailing health care system by borrowing ideas from overseas.

**This report is about health care, but it’s also a travelogue of sorts. What was the most memorable moment from your travels in making this report?**

I heard Big Ben toll the hours; I rode the bullet train past Mount Fuji; I ate *leberwurst mit sauerkraut* in Berlin; I flew a fighting kite on a beach in Taiwan; I strolled the breezy shore of Lac Léman with the president of Switzerland. All in all, a lovely trip.

For me, the best moment came at a new hospital in the fishing village of Jinshan, on the east coast of Taiwan. We went there with Professor Bill Hsiao of Harvard, the guy who designed Taiwan’s new health care system. In the hospital lobby, we met a woman, Mrs. Lee. She told me that her mother got breast cancer in the 1980s, when Taiwan had no [national] health care system and Jinshan had no hospital. Her mother died. In the late 1990s, the daughter, Mrs. Lee, also got breast cancer. By then, Jinshan had the new hospital and a health care system that gave Mrs. Lee treatment. She is now completely recovered.

I pointed out Professor Hsiao. I said, “Right over there is the guy who set up the health care system that treated your cancer.” So Mrs. Lee walked shyly over to Bill Hsiao; she gave him just a tiny, almost imperceptible bow. I thought it was a moving way for someone to say, “Thank you for saving my life.”
Part 3

Single-payer national health insurance is the solution

Talking point 7:
Physicians and the public support single payer.

A majority of physicians (59 percent), and an even high proportion of Americans (two-thirds), support national health insurance or “Medicare for all.”


See: “PNHP Backgrounder: Recent Public Polls on Single Payer.” Physicians for a National Health Program.


Support for National Health Insurance among U.S. Physicians: 5 Years Later

**Background:** The increasing costs of health care and health insurance have concerned Americans for some time (1). The number of uninsured Americans increased by 2.2 million to 47 million in the most recent census. This is the largest increase reported by the U.S. Census Bureau since 1992 (2). In a 2002 survey of physicians, we reported that 49% supported government legislation to establish national health insurance (3).

**Objective:** To determine whether physician opinion has changed in the 5 years since the 2002 survey and assess physicians’ support for government legislation to establish national health insurance and their support for achieving universal coverage through more incremental reform.

**Methods:** We randomly sampled 5000 physicians from the American Medical Association Masterfile. We sent each physician a survey asking 2 questions: 1) In principle, do you support or oppose government legislation to establish national health insurance? and 2) do you support achieving universal coverage through more incremental reform? Question 1 was identical to the one we used in our 2002 study (3). Respondents answered using a 5-point Likert scale. We also gathered data on physician membership organizations and demographic, personal, and practice characteristics.

**Results:** Of 5000 mailed surveys, 509 were returned as undeliverable and 197 were returned by physicians who were no longer practicing. We received 2193 surveys from the 4294 eligible participants, for a response rate of 51%. Respondents did not differ significantly from nonrespondents in sex, age, doctoral degree type, or specialty. A total of 59% supported legislation to establish national health insurance (28% “strongly” and 31% “generally” supported), 9% were neutral on the topic, and 32% opposed it (17% “strongly” and 15% “generally” opposed). A total of 55% supported achieving universal coverage through more incremental reform (14% “strongly” and 41% “generally” supported), 21% were neutral on the topic, and 25% opposed incremental reform (14% “strongly” and 10% “generally” opposed). A total of 14% of physicians were opposed to national health insurance but supported more incremental reforms. More than one half of the respondents from every medical specialty supported national health insurance legislation, with the exception of respondents in surgical subspecialties, anesthesiologists, and radiologists. Current overall support (59%) increased by 10 percentage points since 2002 (49%). Support increased in every subspecialty since 2002, with the exception of pediatric subspecialists, who were highly supportive in both surveys (Figure).

**Conclusion:** Most physicians in the United States support government legislation to establish national health insurance. Support is high among physicians in all but some of the procedural specialties.

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Ronald T. Ackerman, MD, MPH
Indiana University School of Medicine
Indianapolis, IN 46202

Potential Financial Conflicts of Interest: None disclosed.

**Figure.** Support for government legislation to establish National Health Insurance in 2007 and 2002, by specialty.

<table>
<thead>
<tr>
<th>Medical Specialty</th>
<th>Support National Health Insurance, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychiatry</td>
<td>60</td>
</tr>
<tr>
<td>Pediatric sub specialties</td>
<td>55</td>
</tr>
<tr>
<td>Emergency medicine</td>
<td>50</td>
</tr>
<tr>
<td>General pediatrics</td>
<td>50</td>
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<tr>
<td>General internal medicine</td>
<td>45</td>
</tr>
<tr>
<td>Medical sub specialties</td>
<td>40</td>
</tr>
<tr>
<td>Pathology</td>
<td>40</td>
</tr>
<tr>
<td>Family medicine</td>
<td>35</td>
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<tr>
<td>OB-GYN</td>
<td>30</td>
</tr>
<tr>
<td>General surgery</td>
<td>25</td>
</tr>
<tr>
<td>Surgical sub specialties</td>
<td>20</td>
</tr>
<tr>
<td>Anesthesiology</td>
<td>10</td>
</tr>
<tr>
<td>Radiology</td>
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</tbody>
</table>

2002 data are not available for pathology and radiology because of lack of response in those categories. OB-GYN = obstetrics and gynecology.
PNHP Backgrounder: Recent Public Polls on Single Payer

AP/Yahoo (December 14-20, 2007)

1,821 adults

Which comes closest to your view?

34% - The United States should continue the current health insurance system in which most people get their health insurance from private employers, but some people have no insurance

65% - The United States should adopt a universal health insurance program in which everyone is covered under a program like Medicare that is run by the government and financed by taxpayers

2% - Refused / Not Answered

CNN / Opinion Research (May 4-6, 2007)

1,028 American Adults

“Do you think the government should provide a national health insurance program for all Americans, even if this would require higher taxes?”
1,281 American Adults

“Do you think the federal government should guarantee health insurance for all Americans, or isn’t this the responsibility of the federal government?”

Harvard School of Public Health/Harris Interactive (February 14, 2008)

2,038 Adults

“So far as you understand the phrase, do you think that if we had socialized medicine in this country that the health care system would be better or worse than what we have now?”

45% - “Better”
39% - “Worse”

(Historically, the phrase “socialized medicine” has been used to attack health reform proposals in the U.S.)
By Kip Sullivan, J.D.

Part 1: Introduction

‘Americans are scared to death of single payer.’

These words were not uttered by some foaming-at-the-mouth wingnut. They were written by Bernie Horn, a senior fellow at the Campaign for America’s Future, a member of Health Care for America Now, on June 8, 2009. Horn explained that he was moved to write this tripe because single-payer supporters were asking why Democrats had taken single payer off the table to make room for the ‘public option’:

The question most frequently asked by progressive activists at last week’s America’s Future Now conference was this: We hear Obama and congressional Democrats talking about a public health insurance option, but why aren’t they talking about a single-payer system like HR 676 sponsored by Rep. John Conyers? Why is single payer ‘off the table’?

Horn went on to assert that single payer had been taken off the table because Americans want it off the table. He claimed polling data supported him, but he cited no particular poll. The truth is that the Campaign for America’s Future (CAF) and other groups in Health Care for America Now (HCAN) had decided years earlier they would push Democratic candidates and officeholders to substitute the ‘option’ for single payer, and they would tell both Democrats and progressive activists that Americans ‘like the insurance they have’ and that Americans oppose single payer.

The argument that single payer is ‘politically infeasible’ is not new. That argument is as old as the modern single-payer movement (which emerged in the late 1980s). It is an argument made exclusively by Democrats who don’t want to support single-payer legislation - a group Merton Bernstein and Ted Marmor have called ‘yes buts.’

The traditional version of the ‘yes but’ excuse has been that the insurance industry is too powerful to beat or, more simply, that ‘there just aren’t 60 votes in the Senate for single payer.’ But the leaders of the ‘option’ movement felt they needed a more persuasive version of the traditional ‘yes but’ excuse. The version they invented was much more insidious. They decided to say that American ‘values,’ not American insurance companies, are the major impediment to single payer.

How did the ‘option’ movement’s leaders know that Americans oppose single payer? According to Jacob Hacker, the intellectual leader of the ‘option’ movement, they knew it because existing polling data said so. According to people like Bernie Horn and Roger Hickey at CAF, they knew it because focus group ‘research’ and a poll conducted by pollster Celinda Lake on behalf of the ‘option’ movement said so.

About this series

This six-part series explores the research on American attitudes about a single-payer (or Medicare-for-all) system to evaluate the truth of the new version of the ‘yes but’ argument. We will see that the research demonstrates that approximately two-thirds of Americans support a Medicare-for-all system despite constant attacks on Medicare and the systems of other countries by conservatives. The evidence supporting this statement is rock solid. The evidence against it - the focus group and polling ‘research’ commissioned by the ‘option’ movement’s founders - is defective, misinterpreted, or both.

In Part 2 of this series, I will describe two experiments with ‘citizen juries’ which found that 60 to 80 percent of Americans support a Medicare-for-all or single-payer system. The citizen jury research is the most rigorous research available on the question of what Americans think about single payer and other proposals to solve the health care crisis. It is the most rigorous because it exposes randomly selected Americans to a lengthy debate between proponents of single payer and other proposals.

Of the two ‘juries’ I report on, the one sponsored by the Jefferson Center in Washington DC in 1993 remains the most rigorous test of public support for single-payer legislation ever conducted. After taking testimony from 30 experts over the course of five days, a ‘jury’ of 24 Americans, selected to be representative of the entire population, soundly rejected all proposals that relied on competition between insurance companies (including President Bill Clinton’s ‘managed competition’ bill) and endorsed Sen. Paul Wellstone’s single-payer bill. These votes were by landslide majorities. Washington Post columnist William Raspberry accurately noted, ‘Perhaps most interesting about last week’s verdict is its defiance of inside-the-Beltway wisdom that says a single payer … plan can’t be passed’ (‘Citizens jury won over by merits of Wellstone’s single-payer plan,’ Washington Post October 21, 1993, 23A).
In Part 3, I’ll review polling data and explore the question, Why do some polls confirm the citizen jury research while other polls do not? We will discover an interesting pattern: The more poll respondents know about single payer, the more they like it. We will see that polls that claim to find low support for single payer provide little information about what a single payer is (they fail to refer to Medicare or to another example of a single-payer system), they provide misleading information, or both. For example, when Americans are asked if they would support a universal health insurance program in which everyone is covered under a program like Medicare that is run by the government and financed by taxpayers; two-thirds say they would, but when they are asked, “Do you think the government would do a better or worse job than private insurance companies in providing medical coverage?” fewer than half say ‘government’ would do a ‘better job.’ Although neither question provided anywhere near as much information as the citizen jury experiments, it is obvious the former question was more informative than the latter.

In Parts 4 and 5, I’ll discuss the evidence that ‘option’ advocates cite for their claim that single payer is opposed by most Americans. Part IV will examine polling data that Jacob Hacker uses to justify his refusal to support single payer and his decision to promote the notion of ‘private-plan choice.’ Part V will examine the survey and focus group ‘research’ done by Celinda Lake for the Herndon Alliance and subsequently cited by leaders of HCAN, the two groups most responsible for bringing the ‘public option’ into the current health care reform debate.

We will see that Hacker’s research relies on polls that pose such vague questions that the results resemble a Rorschach blot more than a guide to health care reform strategy. Would you make a decision about whether to abandon single payer based on a poll that asked respondents to choose between these two statements: (1) “[It] is the responsibility of the government in Washington to see to it that people have help in paying for doctors and hospital bills…”; and (2) ‘these matters are not the responsibility of the federal government and… people should take care of these things themselves’? I wouldn’t, but Hacker did. If it turned out that about 50 percent of the respondents said it was the federal government’s responsibility, 20 percent said it was the individual’s responsibility, and the other 30 percent split their vote between government and individual responsibility, would you read those results to mean Americans ‘are stubbornly attached to employment-based health insurance’? I certainly wouldn’t, but Hacker did. Would you use this poll as evidence that ‘American values are barriers to universal health insurance’? I wouldn’t, but Hacker did.

The ‘research’ that Celinda Lake did for the Herndon Alliance used strange methods. For example, she selected her focus groups based on their answers to questions about ‘values’ that had nothing to do with health care reform. The values included ‘brand apathy,’ ‘upscale consumerism,’ ‘meaningful moments,’ ‘mysterious forces,’ and ‘sexual per-

missiveness.’ ‘Meaningful moments,’ for example, was described as, ‘The sense of impermanence that accompanies momentary connections with others does not diminish the value of the moment.’ Do you think it’s important to ask Americans about their ‘sense of impermanence’ before deciding whether you will support single-payer legislation? I don’t, but Celinda Lake and the Herndon Alliance did.

The ‘option’ movement’s ‘research’ turns out to be no match for the more rigorous research which demonstrates two-thirds of Americans support Medicare-for-all.

In Part 6, I discuss the wisdom of allowing polls and focus group research to dictate policy and strategy, something the ‘option’ movement’s founders talked themselves into doing. Hacker has been especially vocal about this. He repeatedly urges his followers to think ‘politics, politics, politics,’ a squishy mantra that, in practice, translates into an exaltation of opportunism. The failure of Hacker and HCAN to object to the shrinkage of the ‘public option’ by congresional Democrats, from a program covering half the population to one that might insure 1 or 2 percent of the population, documents that statement.

The fact that two-thirds of the American public supports single payer does not mean the enactment of a single-payer system will be easy. It won’t be. But it does mean the new ‘yes but’ justification for opposing single payer, or indefinitely postponing active support for single payer, is false and should be rejected.

Part 2: Citizen juries demonstrate massive support for single payer

‘They contradicted both beltway and public opinion polls. The whole damn world seems to think the Clinton plan is the way to go. Yet they like the single-payer system, which isn’t even getting considered in Washington.’

That was how the president of the Jefferson Center characterized the outcome of a five-day ‘citizen jury’ experiment in which 24 ‘jurors’ listened to and questioned 30 experts on health care reform. (Patrick Howe, ’Citizens jury’ supports Wellstone’s health care proposal over Clinton plan,” Minneapolis Star Tribune, October 15, 1993, 10A.) Of those 30 experts, only one, Senator Paul Wellstone (D-MN), spoke in favor of single payer. (Gail Shearer of Consumers Union, which had endorsed single payer by 1993, was one of the 30 experts to speak to the jury, but it is not clear from the Jefferson Center record that she spoke in favor of single payer.)

The jury heard expert testimony for and against all three of the major types of health care reform legislation that have been promoted in the US over the last four decades. Senator Wellstone presented the case for his single-payer bill, numerous speakers made the case for Bill Clinton’s managed competition bill (a bill based on competition between insurance companies that use managed-care cost-control techniques), and numerous speakers made the case for what later came to be called ‘consumer-driven’ health insurance
policies (competition between insurance companies that sell policies with deductibles on the order of $2,000 for individuals and $5,000 for families).

The jury voted by massive majorities to reject the market-based proposals - managed competition and high-deductible policies - and, by a landslide majority (17 out of 24, or 71 percent), to endorse Wellstone's single-payer bill. At the time the Jefferson Center report noted only that a majority of jurors voted for single payer. The actual vote count was reported years later by Barry Casper in his book, “Lost in Washington: Finding the Way Back to Democracy in America.”

The unbearable lightness of polls

Observers were surprised at the jury’s rejection of the Clinton plan because polls taken at the time the Jefferson Center jury was meeting (the second week of October 1993) were reporting that a majority of the public supported Clinton’s Health Security Act, his ‘managed competition within a budget’ bill that was supposed to create a system of universal health insurance. For example, a Gallup/CNN/USA Today poll (see Exhibit 1 page 10) released on September 24, 1993 showed 59 percent endorsed Clinton’s bill. But just three weeks later, on October 14, 1993, the jury rejected Clinton’s bill by a vote of 19 to 5. Five jurors out of 24 comes to 21 percent, far below the 60-percent level one would have expected based on polls.

The enormous gap between the citizens jury’s vote on Clinton’s bill and contemporary poll results illustrates a well known problem with polls: Although they can produce consistent and accurate results when the question is about something the respondents are familiar with, such as whether they have health insurance, they can produce wildly divergent and inaccurate results when the question is about a complex issue that respondents have had little time to study or even to think about.

Contrast, for example, a 2007 AP-Yahoo poll, which found 65 percent of Americans support a Medicare-for-all system, with a 2009 CBS poll which found only 50 percent think ‘government’ would do a ‘better job’ of providing health insurance than the insurance industry. The AP-Yahoo poll posed this question (the order of the two solutions was reversed from one respondent to the next):

Which comes closest to your view?

The United States should continue the current health insurance system in which most people get their health insurance from private employers, but some people have no insurance;

The United States should adopt a universal health insurance program in which everyone is covered under a program like Medicare that is run by the government and financed by taxpayers.

Sixty-five percent of respondents chose the second solution - the Medicare-for-all solution - while only 34 percent chose the current system.

Now consider the June 12-16, 2009 CBS poll which asked: ‘Do you think the government would do a better or worse job than private insurance companies in providing medical coverage?’ Fifty percent said ‘the government’ would do a better job versus 34 percent who said ‘the government’ would do a worse job.

Now, just to raise your skepticism about polls another notch, consider this wrinkle. When CBS asked the same question two months later - during August 27-31, 2009 - they found 13 to 14 percent of respondents had changed their minds in favor of the insurance industry. That is, by late August (by which time dozens of tumultuous ‘town hall’ meetings about the Democrats’ health care ‘reform’ legislation had taken place), the percent who thought ‘the government’ would do a better job had fallen to 36 (from 50 percent) while the percent who thought ‘the government’ would do a worse job had risen to 47 (from 34 percent).

How do we make sense of these seemingly contradictory results? Do we trust the late-August CBS poll and say only one-third of Americans support single payer? Or do we go with the AP-Yahoo poll and say two-thirds support single payer? Or do we split the difference and say the June CBS poll got it about right - that half of Americans support single payer?

Fortunately, we are not reduced to rolling dice or drawing straws. We can examine research that uses methods more reliable than those used by the typical poll, notably two citizen jury experiments. And we can examine polls that have produced contradictory results to see if we can find a reason why. I will use the remainder of this paper to report on the two citizen juries. I’ll examine polling data more closely in Part 3 of this series.

The Jefferson Center’s methodology

The Jefferson Center, a non-profit organization created in 1974 by Ned Crosby, invented the ‘citizen jury’ label and developed the rules for them that are now used around the world, especially in the United Kingdom. These methods include: random selection of jurors; selection of experts and moderation of the discussion in a manner that minimizes bias; recording of the proceedings; a report from the jury indicating votes taken on major issues presented to it and recommendations from the jury; questionnaires for jurors after the jury has completed its work to inquire about their perception of the fairness of the process; and oversight and review by a steering committee to minimize bias.

The 24 jurors who gathered in a Washington, DC hotel on Sunday, October 10, 1993 were randomly selected from a pool of 2000. They included a 23-year-old college student from Colorado, a 27-year-old carpenter from Wisconsin, a 32-year-old janitor from Minnesota, a 44-year-old village clerk from New York, a 46-year-old banker from Indiana, a 51-year-old antique dealer from California, a 59-year-old retired nurse from Louisiana, and a 75-year-old retired insurance agent from Florida. Ten had voted for Clinton in
the 1992 election, nine for George H.W. Bush, and five for Ross Perot. Three had no health insurance.

The experts who addressed the jury included three sitting US Senators, two former members of the House of Representatives, and 25 other experts including Gail Wilensky (who was the director of Medicare under the first President Bush and is a member of numerous corporate boards), Ira Magaziner (who directed Hillary Clinton’s health care reform task force), and Ron Pollack (director of Families USA). The discussion was moderated by Kathleen Hall Jamieson, dean of the Annenberg School for Communication at the University of Pennsylvania. Former CBS and NBC TV anchor Roger Mudd was on hand to film a documentary which aired in April 1994.

After five days of listening to and cross-examining the 30 experts (the jury asked the experts more than 500 questions), the jurors refused even to vote on the ‘managed competition lite’ proposal presented by Senator Dave Durenberger (R-MN) and a high-deductible (Medical Savings Account) proposal presented by Senator Don Nickles (R-OK). In other words, the jury rejected the Durenberger and Nickle’s legislation by a vote of 24 to zero. They rejected Clinton’s Health Security Act by a vote of 19 to 5. When they were asked how many supported Sen. Nickles (R-OK). In other words, the jury rejected the Durenberger and Nickle’s legislation by a vote of 24 to zero. They rejected Clinton’s Health Security Act by a vote of 19 to 5. When they were asked how many supported Sen. Wellstone’s single-payer bill (S. 491), 17 of 24 (71 percent) raised their hands.

Washington Post columnist William Raspberry wrote at the time:

Perhaps most interesting about last week’s verdict is its defiance of inside-the-Beltway wisdom that says a single payer ... plan can’t be passed. These jurors think it can - and ought to be. (William Raspberry, ‘Citizens jury won over by merits of Wellstone’s single-payer plan,’ Washington Post, October 21, 1993, 23A)

I have already noted one reason why observers were surprised by the jury’s votes, namely, polls taken around the time the jury met indicated a majority of the public liked Clinton’s bill. But there was another reason to be surprised: The Jefferson Center created a playing field that was steeply tilted against Wellstone’s single-payer bill.

To begin with, the Center limited the jury to two questions: ‘Do we need health care reform in America?’ and, ‘Is the Clinton plan the way to get the health care reform we need?’ Second, the agenda called for presentations by a team of Republicans and their expert witnesses arguing for Republican proposals, and a team of Democrats and their expert witnesses arguing for Clinton’s Health Security Act. (The Republican team was managed and represented by former Minnesota Congressman Vin Weber; the Democrats were led by Hill and Knowlton lobbyist and former Connecticut Congressman Toby Moffett.) There was no team advocating for single payer. There was only Wellstone.

But the jury was so attracted to Wellstone’s description of his bill during his initial presentation that they voted 22-0 to invite him back for two more question periods (see page 10 of the Jefferson Center report). No other witness was asked back even once. ‘In fact,’ noted columnist Raspberry, ‘when the Minnesotan [Wellstone] dropped in at the jury’s farewell dinner Thursday night, he got a standing ovation.’

To sum up: The Jefferson Center’s citizen jury methodology was far more rigorous than any two- or three-sentence poll can be, and yet even the methods used for that jury permitted substantial bias against the single-payer approach. A total of 30 experts spoke to the Jefferson Center jury over five days. Only one of them, Senator Wellstone, made the case for single payer. Even though the question of whether to support or oppose single payer was not on the agenda, the jury took the initiative to get more information about it. The jury did not have to do that for any other proposal. Despite these obstacles, the single-payer proposal won by a 71-percent majority.

**Minnesota citizen jury endorses single payer by 79 percent**

On October 1, 1996 I was part of another citizen jury project sponsored by the Minneapolis Star Tribune and Twin Cities Public TV which used a methodology similar to the Jefferson Center’s jury and which had a nearly identical outcome. In this case, the jury consisted of 14 randomly selected Minnesotans, only three experts spoke, and the entire event lasted just four hours. I made the case for single payer (at that time I represented Minnesota Citizens Organized Acting Together), Michael Scandrett (then the director of the Minnesota Council of HMOs) stated the case for managed competition, and a woman who had just left a job with the Minnesota Department of Health to create her own advocacy group for Medical Savings Accounts (MSAs, now referred to as Health Savings Accounts) presented the argument for MSAs.

At the end of four hours, the moderator for the evening (an officer of the Minnesota League of Women Voters) put several questions to the jury for a vote. Her first question asked each juror which proposal they supported. Eight voted for single payer, three voted for managed competition, one woman split her vote between single payer and managed competition (she said she wanted the two proposals to be married somehow), no one voted for MSAs, and two of the 14 abstained. If we allocate a half of the vote by the woman who wanted some combination of managed competition and single payer to each proposal, single payer’s total was 8.5, or 61 percent of the 14 jurors.

The moderator’s second question asked whether the jurors would support universal coverage under a single-payer system if citizens had to pay $1,000 more in taxes that were offset by $1,000 in reduced premiums and out-of-pocket costs. (This is a conservative estimate of what would happen. It is likely that aggregate premium and out-of-pocket costs would decline more than aggregate taxes would go up under a single-payer system, and very likely that premium and out-of-pocket costs would decline substantially more than taxes would go up for lower- and middle-income Americans.) Eleven said yes to this question, and three
abstained. If we treat this latter vote as the definitive vote for single payer, then it would be accurate to say 79 percent voted for single payer. Finally, the moderator asked if the jury thought Congress had failed to give single payer a fair hearing. Again, 11 (79 percent) said yes and three said no. (Glenn Howatt, ‘Canadian-style care starting to look more attractive to panelists,’ Minneapolis Star Tribune October 9, 1996, A15)

**Part 3: Informative polls show two-thirds support for single payer**

In Part 2 of this six-part series, I reported on the results of two ‘citizen jury’ experiments in which advocates for single payer, managed competition, and high-deductible policies spoke to, and were questioned by, ‘juries’ that were representative of America. In the case of the 1993 ‘jury’ sponsored by the Jefferson Center, 71 percent voted for single payer. In the case of the 1996 ‘jury,’ 61 percent voted for single payer when no specific information about its cost to individuals was presented, and 79 percent voted for a single-payer system that would have lowered premium and out-of-pocket costs by as much as taxes rose. Both juries rejected proposals relying on health insurance companies by huge majorities.

Many polls that ask about support for Medicare-for-all produce results that confirm the citizen jury findings. But others don’t. What explains that inconsistency?

**The more they know about single payer, the more they like it**

In this paper (Part 3 in a six-part series) I will present data from polls that ask about single payer, and then inquire why some polls show landslide majorities for single payer and some do not. We will find a clear pattern: Polls that convey more information tend to report higher levels of support than polls that convey little information, and polls that convey accurate information tend to report more support than polls that convey inaccurate information.

Table 1 lists 14 poll questions taken from 11 polls conducted over the last two decades which used the phrase ‘single payer’ and/or referred to an existing single-payer system (Medicare, for example). All 14 questions found majority support for single payer.

Three of these polls (representing one question each) were limited to doctors. I have included these physician surveys to debunk the false impression (created primarily by the American Medical Association) that the average doctor is opposed to single payer. The three polls shown in Table 1 indicate that support among doctors is about 60 percent.

Table 1 indicates that public support for single payer ranges from a low of 50 percent to a high of 69 percent. I have divided the polls of the general public into those that found support levels at 60 percent or higher (eight questions) and those that found levels in the 50-to-58 percent range (three questions).

### Table 1: Polls indicating majority support for single payer

<table>
<thead>
<tr>
<th>Poll</th>
<th>General public: Polls in which support is 60 percent or higher</th>
<th>General public: Polls in which support is below 60 percent</th>
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</thead>
<tbody>
<tr>
<td>AP-Yahoo (2007)(f)</td>
<td>54% . . . . 44%</td>
<td></td>
</tr>
<tr>
<td>Kaiser Family Foundation (2009)(h)</td>
<td>58% . . . . 38%</td>
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</tr>
<tr>
<td>Kaiser Family Foundation (2009)(h)</td>
<td>50% . . . . 44%</td>
<td></td>
</tr>
<tr>
<td>Doctors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Eng J Med (medical school faculty and students) (1999)</td>
<td>57% . . . . not asked</td>
<td></td>
</tr>
<tr>
<td>Arch Int Med (doctors) (2004)</td>
<td>64% . . . . not asked</td>
<td></td>
</tr>
<tr>
<td>Minnesota Med (doctors) (2007)</td>
<td>64% . . . . not asked</td>
<td></td>
</tr>
<tr>
<td>(a) The question asked by the Harvard University/Harris poll was:</td>
<td>‘The majority of Americans (61 percent) state they would prefer</td>
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<td>(b) The question asked by the Los Angeles Times poll was: ‘In the</td>
<td>the Canadian system of national health insurance where the</td>
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<td>(c) The question asked by the Wall Street Journal-NBC poll was:</td>
<td>government pays most of the cost of health care for everyone</td>
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<td>(d) The Washington Post-ABC News poll asked: ‘Which would you</td>
<td>out of taxes and the government sets all fees charged by</td>
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<td>(e) The question asked by the Civil Society Institute poll was:</td>
<td>hospitals and doctors...’ An analogous question posed to</td>
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<td>(f) The question asked by the AP-Yahoo poll was: ‘Do you favor</td>
<td>Canadians found that only 3 percent of Canadians said they</td>
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<td>(g) The question asked by the Grove Insight poll was:</td>
<td>would prefer the American system.</td>
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<td>(h) The question asked by the Kaiser Family Foundation poll was:</td>
<td>‘In the Canadian system of national health insurance, the</td>
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<td>(i) The question asked by the Harvard University poll was: ‘Do</td>
<td>government pays most of the cost of health care out of taxes</td>
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<td>(j) The question asked by the Minnesota Med poll was:</td>
<td>and the government sets all fees charged by doctors and</td>
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<td>(k) The question asked by the Civil Society Institute poll was:</td>
<td>hospitals. Under the Canadian system - which costs the</td>
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<td>(l) The question asked by the AP-Yahoo poll was: ‘Which would</td>
<td>taxpayers less than the American system - people can choose</td>
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<td>(m) The question asked by the Grove Insight poll was:</td>
<td>their own doctors and hospitals. On balance, would you prefer</td>
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<td>(n) The question asked by the Kaiser Family Foundation poll was:</td>
<td>the Canadian system or the system we have here in the United</td>
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<td>(o) The question asked by the Grove Insight poll was:</td>
<td>States?’ Sixty-six percent chose the Canadian system and 25</td>
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<td>(p) The question asked by the AP-Yahoo poll was:</td>
<td>percent chose the US system.</td>
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<td>(q) The question asked by the Grove Insight poll was:</td>
<td>(a) The question asked by the Harvard University/Harris poll</td>
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<td>(r) The question asked by the Grove Insight poll was:</td>
<td>was described in the Health Affairs article reporting the</td>
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<td>(s) The question asked by the Grove Insight poll was:</td>
<td>results as follows: ‘The majority of Americans (61 percent)</td>
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<td>(t) The question asked by the Grove Insight poll was:</td>
<td>state they would prefer the Canadian system of national health</td>
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<td>(u) The question asked by the Grove Insight poll was:</td>
<td>insurance where the government pays most of the cost of health</td>
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<td>(v) The question asked by the Grove Insight poll was:</td>
<td>care for everyone out of taxes and the government sets all</td>
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<td>(KK) The question asked by the Grove Insight poll was:</td>
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<td>(LL) The question asked by the Grove Insight poll was:</td>
<td>government-paid health care system like they have in Canada?’</td>
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<td>(NN) The question asked by the Grove Insight poll was:</td>
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<td>(OO) The question asked by the Grove Insight poll was:</td>
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<td>(f) The question asked by the Grove Insight poll was:</td>
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<td>(SS) The question asked by the Grove Insight poll was:</td>
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<td>(TT) The question asked by the Grove Insight poll was:</td>
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<td>(ZZ) The question asked by the Grove Insight poll was:</td>
<td>paid health care system like they have in Canada?’</td>
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people have no insurance); or (a universal health insurance program, in which everyone is covered under a program like Medicare that’s run by the government and financed by taxpayers)? Thirty-three percent preferred the current system while 62 percent preferred the ‘universal system.’

(e) The Civil Society poll asked: ‘Other major nations, such as Canada and England, guarantee their citizens health insurance on the job, through government programs, or via a nonprofit source. Would it be a good or bad idea for the United States to adopt the same approach to providing health care to everyone?’

(f) The AP-Yahoo poll asked two questions. One asked respondents which of these two proposals they agreed with: (1) The United States should adopt a universal health insurance program in which everyone is covered under a program like Medicare that is run by the government and financed by taxpayers (65 percent chose this option); (2) The United States should continue the current health insurance system in which most people get their health insurance from private employers, but some people have no insurance (34 percent chose this option). The second question was: ‘Do you consider yourself a supporter of a single-payer health care system, that is, a national health plan financed by taxpayers in which all Americans would get their insurance from a single government plan, or not?’ (54 percent said they were supporters of single payer and 44 percent said they were opposed).

(g) The Grove Insight poll asked two questions. One asked: ‘Federal leaders are considering expanding Medicare to all Americans, so that people have another option besides private health insurance or an HMO. Do you favor or oppose the creation of this type of public health plan option?’ (64 percent said they favor this proposal). A very similar question was asked which differed from the first by including information on the financing mechanism: ‘There is proposed federal legislation that gives any American, regardless of age, the option of joining the Medicare program. Americans who choose this option would share the cost of the coverage with their employer through increased Medicare payroll deductions, instead of paying private health insurance premiums. Do you favor or oppose this legislation?’ (60 percent favored it and 27 percent opposed it). Both questions, especially the second one, imply private insurers will continue to exist alongside a Medicare program open to all. But the questions are so similar to questions that clearly ask about Medicare-for-all systems that I decided to include them here.

(h) The Kaiser Family Foundation poll asked: ‘Now I’m going to read you some different ways to increase the number of Americans covered by health insurance. As I read each one, please tell me whether you would favor it or oppose it.’ This was followed by eight proposals which, with the exception of the question about the ‘public option,’ were asked in a random order (the ‘option’ question was always asked at the end). Two of these questions asked about single payer. The first read: ‘Having a national health plan in which all Americans would get their insurance through an expanded, universal form of Medicare-for-all.’ Fifty-eight percent said they favored this proposal while 38 percent said they opposed. The second read: ‘Having a national health plan - or single-payer plan - in which all Americans would get their insurance from a single government plan.’ Only 50 percent favored this proposal while 44 percent opposed.

For sources see Table 2 below.

If we examine the questions posed by all the polls of the general public, one difference between the two sets of poll questions jumps out immediately: The questions that generated levels of support at 60 percent or higher mentioned one of three existing single-payer programs - the Canadian system, the British system, and the US Medicare program. (I have bolded the words referring to these systems in the poll questions, which are presented in the footnotes to Table 1.) In other words, those questions didn’t just rely on the phrase ‘single payer,’ a phrase most people do not understand.

On the other hand, the three questions that prompted support in the 50-to-58-percent range used the phrase ‘single payer’ but did not refer to an existing single-payer system or program. The second AP-Yahoo question, for example, merely asked respondents if they considered themselves to be ‘single-payer supporters.’ Fifty-four percent said yes to that question, which was substantially below the 65 percent who indicated in the same AP-Yahoo poll that they supported a system of universal coverage ‘like Medicare.’ These two AP-Yahoo questions taken together suggest that merely using the term ‘single payer’ and not comparing it to Medicare will cut roughly 10 percentage points off the support level for single payer.

It might be argued that the second AP-Yahoo question

Table 2: Sources


AP-Yahoo poll: Knowledge Networks, (page 15).

Grove Insight poll: Grove Insight memo to Jamie Court, January 30, 2009.

shown in Table 1 produced a relatively low single-payer support rate (54 percent) because it also mentioned the words 'taxpayers' and 'government.' But that argument doesn't work. All but one of the other questions that produced support levels of 60 percent or higher also mentioned 'government' and 'taxes.' The difference is they also mentioned an existing single-payer system or program.

**Apples-to-aardvarks comparisons also reduce support for single payer**

The two questions in Table 1 posed by the 2009 Kaiser poll (see question 13, page 8), which showed 58 and 50 percent support for single payer, reveal another factor that seems to influence poll results - a factor I'll call the 'line-up effect.' The Kaiser poll asked about single payer as well as a half-dozen other proposals without indicating what effect each proposal would have on costs, the number of uninsured, and freedom to choose one's doctor, to name just a few of the variables most people would be interested in. By contrast, the polls listed in the 60 percent-or-higher category did not present single payer in a line-up with other proposals; they simply asked whether respondents would support a single-payer system, or they contrasted single payer with the current system. The 'line-up effect' generated by the Kaiser polls would be minimized or eliminated in a citizen jury experiment because the jury would have plenty of time to inquire about the relative effectiveness of the competing proposals. Respondents to polls don't have that luxury.

The 2009 Kaiser poll began with this announcement:

> Now I'm going to read you some different ways to increase the number of Americans covered by health insurance. As I read each one, please tell me whether you would favor it or oppose it.

Notice the phrase, 'different ways to increase the number of Americans covered by health insurance.' It implies the 'different ways' have all been shown by research to work, and perhaps to reach roughly similar results.

This question was then followed by a description of eight proposals, including 'expanding Medicare to people between the ages of 55 to 64,' 'offering tax credits to help people buy private health insurance,' and 'requiring all Americans to have health insurance.'

This 'line up' method of asking about support for single payer is by no means fatal, but it does appear to reduce the proposed single-payer response rate by somewhere in the range of 5 to 10 percentage points. The Kaiser question that produced 58 percent support asked about 'having a national health plan in which all Americans would get their insurance through an expanded, universal form of Medicare-for-all.' Because this question did not mention taxes and government, you might think more than 58 percent of Americans would have said they favored this proposal. After all, when other polls that do not put single payer in a line-up but do compare single payer to Medicare and do mention 'government' and 'taxes' (see the upper half of Table 1), more than 60 percent indicate their support. The fact that only 58 percent of Americans responded favorably to this question from Kaiser - a question that does mention Medicare but mentions neither 'taxes' nor 'government' - begs for an explanation. It is reasonable to hypothesize that the explanation is the 'line up' context in which the question was asked.

The second Kaiser question listed in Table 1, the one that produced only 50 percent support, contained a double whammy. Like the first Kaiser question, it used the line-up method; unlike the first question, it failed to compare single payer with Medicare or another single-payer system. This suggests that the cumulative effect of the line-up method plus failure to compare single payer to Medicare can diminish support for single payer by about 15 percent.

Perhaps an analogy will help. Imagine if you were asked to indicate whether you 'favored or opposed' six 'ways to lose weight,' and the 'ways' ('ways' is the noun Kaiser uses) ranged from the truly effective (for example, exercising for half an hour a day) to the barely effective (for example, weight loss pills or drinking more water). Imagine furthermore that the pollster gave you no information at all on the effectiveness of the various 'ways' nor on their side effects. It seems likely that many respondents could be lulled into thinking all the 'ways' are roughly equivalent in effectiveness and that respondents would, therefore, give less support to the effective methods of weight loss in response to this type of 'line up' question than they would if they were simply asked, 'Do you support exercise as a means of weight loss?'

Let me offer one more example of the use of the line-up method in a poll about health care reform, this one the July 2009 poll by Time Magazine. Time posed questions about seven different proposals that began with the phrase, 'Would you favor or oppose a health care bill that...?' The implication of the phrase 'a health care bill' is that members of Congress and experts in general think all of the proposals the respondent is about to hear will ameliorate the health care crisis to some degree, perhaps to the same degree. The single-payer question read:

> Would you favor or oppose a health care bill that creates a national single-payer plan similar to Medicare for all, in which the government would provide health care insurance to all Americans?

Forty-nine percent favored single payer, 46 percent opposed it. Like all the poll questions shown in Table 1 that showed support for single payer in the 60-to-70 percent range, the Time question mentioned Medicare and 'government.' (Oddly, unlike the high-scoring poll questions in Table 1, the Time question didn't mention 'taxes.') You might think, then, that the Time poll would have produced a level of support for single payer in the sixties. The fact that it produced only a 49 percent ‘favor’ rating suggests, again, that something about the ‘line up’ format reduces support for single payer by about 10 percentage points.

To sum up this section: Polls that ask reasonably informa-
Two more examples of polls that convey too little information

To explore further the hypothesis that vagueness in poll questions diminishes support for single payer, consider polls that are even vaguer than the polls in Table 1 that use ‘single payer’ but offer almost no details about it. Let’s examine three polls that did not use the phrase ‘single payer’ and offered no details about how the proposed ‘government’ program would work.

In Part 2 of this series, I described a CBS poll conducted in June and August 2009 which asked:

Do you think the government would do a better or worse job than private insurance companies in providing medical coverage?

This question has the ring of a single-payer question, but it leaves numerous important questions unanswered, including whether the program in question would provide coverage to everyone and whether ‘provide’ means cover people directly or give them subsidies so they can buy coverage from insurance companies.

We saw that when this question was asked in June 2009, 50 percent said ‘the government’ would do a better job, but when this question was asked in late August 2009, only 36 percent said ‘the government’ would do a better job. Does this CBS poll contradict the more precise polls listed in Table 1 that found two-thirds support for single payer?

The answer is no. The CBS poll conveys so little information about how ‘the government’ would do the ‘job’ of ‘providing medical coverage’ that it isn’t even clear if this question was meant to be about single payer. In the context of the current debate, Americans are much more likely to think the question refers to the Democrats’ 2009 ‘reform’ bills, which require Americans to buy health insurance from insurance companies, than to single-payer legislation. The sharp drop in support for ‘the government’ in the CBS poll between June and August is evidence that the highly publicized town hall meetings held in August to discuss the Democrats’ bills influenced responses to the poll, which in turn indicates many respondents thought the question was about the Democrats’ legislation, not HR 676 (the single-payer bill introduced in the House of Representatives) or S 703 (the Senate single-payer bill).

We see a similar problem in the following question, contained in both a CBS/New York Times poll and a Harvard School of Public Health poll, conducted over several decades:

Do you favor or oppose national health insurance, which would be financed by tax money, paying for most forms of health care?

Like the phrase ‘government providing medical coverage’ in the CBS poll, the phrase ‘national health insurance’ in this poll could mean government financing of universal coverage through a single-payer system or through a multiple-payer system. If you look at Exhibit 1 on page 35 of this article from Health Affairs, you’ll see that between 1980 and 2000 the percent of respondents saying they favor ‘national health insurance’ ranged between 46 and 66 percent. The vagueness of the phrase was unquestionably a significant reason why support fluctuated so much.

Another way to diminish support for single payer: Convey inaccurate information

In addition to conveying vague information about single payer there is, of course, another time-tested method of diminishing support for it, and that is to convey inaccurate information about it. This can be done explicitly and implicitly. It can be done explicitly by, for example, asserting in the question that single-payer systems raise taxes but do not lower premiums and out-of-pocket costs. We have already seen one example of how reducing support for single payer with inaccurate information can be done implicitly by inserting the single-payer question into the middle of several other proposals, including incremental proposals such as tax credits for small employers, without warning respondents that the proposals have very different benefits and side effects.

Since 2001, the Gallup poll has been asking this explicitly misleading question (apparently each November):

Which of the following approaches for providing health care in the United States would you prefer: replacing the current health care system with a new government-run health care system, or maintaining the current system based mostly on private health insurance? (emphasis added)

‘Government-run health care system’ has garnered somewhere between 32 and 41 percent support since 2001 (while keeping the ‘current system’ has attracted the support of 48 to 63 percent). But this poll is so biased it is irrelevant to the current debate. The problem here is the use of the phrase ‘health care’ three times instead of ‘health insurance.’

The government does not ‘run health care’ under single-payer systems (or any other system currently under debate in the US, for that matter). Under single-payer systems, clinics, hospitals, and makers of drugs and equipment that are privately owned today would remain in private hands. What the government will ‘run’ in a Medicare-for-all system is health insurance, not health care. The latter phrasing conjures up nightmares of a gigantic government HMO in which the federal
HMO owns all the clinics and hospitals and government bureaucrats decide whether you may have the surgery you and your doctor think you need or whether you must take Lipitor when your doctor prescribed Crestor.

I will discuss another example of a poll that delivers explicit misinformation in Part 5 when I discuss the ‘research’ Celinda Lake did for the ‘option’ movement.

The Bermuda Triangle

Finally, there is the occasional outlier poll that produces very low favorability ratings for single payer about which I can only offer a plausible hypothesis. The August 7-8, 2009 Rasmussen Poll (not shown in Table 1) is an example. The poll asked:

Do you favor or oppose a single payer health care system where the federal government provides coverage for everyone?

We would expect this poll to produce ‘favor’ responses below the 60-percent level because it offers so little information about what a single payer is (it doesn’t mention Medicare or the Canadian or British systems, and offers no other details). But Rasmussen reported that only 32 percent supported single payer while 57 percent opposed it. This question was not asked as part of a ‘line up,’ so the line-up explanation doesn’t help us here. The two explanations that occur to me are sloppiness and deliberate manipulation of the process (for example, sampling a lot more conservatives than liberals). That possibility has occurred to others as well. Rasmussen’s non-electoral polls seem to show more support for conservative positions than other polls.

Summary

We have now reviewed three categories of polls that correspond roughly to support levels of 60 to 70 percent, 50 to 60 percent, and below 50 percent. Polls that produce greater-than-60-percent levels of support for single payer not only use the phrase ‘single payer’ but compare the concept to an existing single-payer program, typically Medicare. Polls showing 50 to 60 percent support inquire about ‘single payer’ without comparing the concept to Medicare or to the single-payer systems of other countries or they pose the question about single payer in a line-up context. Polls that seem to ask about single payer and which show less than 50 percent support use phrasing that is so vague respondents cannot know whether the program being asked about is a single payer and, if so, how it would work.

We saw in Part 2 of this series that two citizen juries conducted in the 1990s produced landslide votes for single payer - votes equal to roughly 60 to 80 percent of all the participating ‘jurors.’ These lengthy ‘jury’ experiments are far more reliable than any poll could possibly be. And yet some polls confirm the ‘jury’ experiments and some don’t. If we ask why, the answer is the polls that show support in at least the 60-to-70-percent range use the phrase ‘single payer’ and give respondents concrete examples of single-payer programs.

If we couple the ‘jury’ experiments with the polling data reviewed in this part, we see a pattern: The more people know about single payer, the more likely they are to support it. We see this pattern when we compare the ‘jury’ results with poll results, and we see it when we compare polls that show high levels of support for single payer with those that don’t.

Part 4: Jacob Hacker’s ambiguous polls

In Part 2 and Part 3 of this series I reviewed rigorous evidence from multiple sources supporting the statement that somewhere between 60 and 80 percent of Americans support a Medicare-for-all system. A reasonably conservative averaging of the more rigorously conducted research I reviewed - the citizen jury results and the results of polls that asked accurate and relatively informative questions - indicates two-thirds of Americans support a single payer or Medicare-for-all system.

In this part and in Part 5, I will examine the basis for the claim by representatives of the ‘public option’ movement that only a minority of Americans support single payer and a majority are opposed. The basis for that claim consists primarily of several papers written by Jacob Hacker and ‘research’ done for the Herndon Alliance by pollster Celinda Lake. Until about two years ago, Hacker wrote about health policy primarily for the academic community; since then he has published frequently in the lay media. Since its formation in 2005, the Herndon Alliance has sought to create ‘research’ that could be used to persuade the public, especially legislators and political activists, that single payer should be taken off the table and the ‘public option’ should be put on the table. I review Hacker’s work in this paper and Celinda Lake’s in Part 5.

Expediency-driven health policy

It may sound sacrilegious to say this ..., but the greatest lesson of the failure of the Clinton health plan is that reformers pay too much attention to policy and too little to politics. If real estate is about location, location, location, health reform is about politics, politics, politics.

Thus spake Jacob Hacker in a paper published in Health Affairs in 2008 entitled, ‘Putting politics first.’ Hacker argues that anyone who wants to achieve universal health insurance must somehow separate ‘politics’ from ‘policy’ and give highest priority to politics. If Hacker had merely said that anyone who seeks to achieve universal health insurance should devote resources to building public pressure for it, his statement would be incontrovertible. It would be a truism. But Hacker’s ‘politics, politics, politics’ statement went beyond the truism that ‘reformers’ must build a movement for universal health insurance.

Hacker’s demand that we distinguish between politics and policy and give high value to one and low value to the other is nonsensical. It’s equivalent to saying that process is
separate from and matters more than outcome, or that
means are separate from and matter more than ends. To
make such a distinction amounts to an endorsement
of opportunism and expediency. We will see in the remainder
of this article that in fact that's where Hacker's 'put politics
first' mantra leads him. It leads him to attribute to the pub-
lic anti-single payer, pro-insurance-industry attitudes based
on polling data that are so abstract they offer no guidance at
all. As the events of 2009 have demonstrated, the exaltation
of expediency - dressed up as political science - produces
all. As the events of 2009 have demonstrated, the exaltation
of expediency - dressed up as political science - produces
neither good policy nor good political strategy.

Unlike the Herndon Alliance, which commissioned its
own polling and focus group 'research,' Hacker relied on
existing polling data to support his conclusion that single
payer is not feasible while the 'public option' is. Hacker
cites different types of polls depending on whether he is
addressing the general public or health policy experts. His
2006 article for Slate cited one set of polls. A 2007 paper that
he co-authored with Mark Schlesinger ('Secret weapon: The
'new' Medicare as a route to health security,' Journal of
another set of polls. Inexplicably, neither paper discussed
the Jefferson Center jury results I discussed in Part 2 nor the
polls showing large majorities for single payer that I dis-
cussed in Part 3 of this series.

In the course of examining these two papers, I will review
in detail seven polls that Hacker cites. This may get tedious,
but it's important that you see for yourself how nebulous
Hacker's 'evidence' is. Once you behold Hacker's 'evidence'
directly, you realize that Hacker's belief that Americans
oppose single payer is based entirely on polling results that
resemble a Rorschach ink blot. You can see in them what
you want to see. Where you and I might discern a public
ready to support single payer, Hacker discovers hulking
impediments to single payer.

Polls Hacker cited in his Slate article

Hacker's article for Slate bore the condescending title,
'Better medicine: Fixing the left's health care prescription.'
The problem in need of 'fixing,' according to Hacker, was
'the left's' support for single payer. Hacker urged 'the left'
to support instead his proposal to 'give employers the
option of providing ... coverage to their workers through
a new public program modeled after Medicare' or through the
insurance industry, a proposal that would, by 2009, be
called 'the public option' for short.

Hacker grudgingly acknowledged single payer's advan-
tages, but then claimed single-payer advocates were 'biting
off too much.'

Americans like Medicare, and yes, Medicare is easy to
explain. But that doesn't mean most people are ready to
say everyone should be covered by Medicare. Many of
us remain stubbornly attached to employment-based
health insurance, and proposing to abolish it entirely is
likely to stir up fear as well as gratitude.

He hyperlinked the words 'stubbornly attached' to an arti-
cle in Mother Jones written by the Century Foundation. (In
the fullness of time, the Century Foundation became a pas-
sionate advocate for the 'public option.' ) The Century
Foundation article reviewed several polls on American atti-
attitudes about 'universal coverage.' Amazingly, one of them was
the 2003 Washington Post/ABC News poll showing 62 per-
cent support for a Medicare-for-all system that I discussed in
Part 3. Does Hacker read the documents he cites as evidence
for his own claims?

Before we examine the Century Foundation's article, I want
call your attention to three features of Hacker's argument.

First, he practices 'put politics first.' He says that even
though single payer is a good proposal, it should be rejected
entirely. It would be one thing to counsel single-payer advoc-
ates against trying to get a full-blown single-payer system
enacted in a single session of Congress and to plan instead for
a multi-year campaign (which is fact what the single-payer
movement has been doing for two decades). But Hacker is not
doing that. He is urging progressives to reject single payer
completely.

Note second that Hacker urges us to accept whatever polls
say as the final arbiter of what is politically feasible. Hacker
has no interest in a very obvious question: If everyone who
supports universal coverage threw their weight behind the
campaign for single payer, how much higher could public sup-
sport for single payer be raised?

Third, Hacker can't bring himself to say how many
Americans are 'stubbornly attached' to employer-based health
insurance. He can only bring himself to say 'many.' If Hacker
is going to rest his entire argument that the 'left' should aban-
don single payer on the premise that 'we' are 'attached' to the
current system, why is he so vague about what proportion of
the populace he is talking about?

I urge readers to examine the Century Foundation article for
yourself. Focus on the 'What we know' section (it's only a
page long), which is where the poll results are discussed. It
will become obvious quickly that this article provides no basis
at all for Hacker's claim that Americans are 'stubbornly
attached' to the current system. At most, only three para-
graphs have any relevance to that claim, and these paragraphs
produce results that are at best ambiguous and at worst (from
Hacker's point of view) supportive of single payer.

Consider the two excerpts from the Century Foundation
summary I quote below. The first asserts the public wants to
replace 'the current employer-based system' (yes, the very
same 'employment-based' system to which Hacker says 'many
of us remain stubbornly attached'). The second excerpt, which
appears barely a half-page later, asserts just the opposite.

[Excerpt 1]
The public wants the government to play a leading role
in providing health care for all. For example, in an
October, 2003 Washington Post/ABC poll, by almost a
two-to-one margin (62 percent to 33 percent), Americans
said that they preferred a universal system that would
provide coverage to everyone under a government pro-


gram, as opposed to the current employer-based system.

[Excerpt 2]
The public generally wants to build on, rather than eliminate, the current employer-based private health insurance system. In a January, 2000 Kaiser poll, they preferred building on the current system to switching to a system of individual responsibility (54 percent to 39 percent) and in a November 2003 Kaiser poll, they preferred keeping the current system to replacing it with a government-run system (37 percent to 38 percent). (emphasis added)

How does one make any sense of these conflicting statements? How does Hacker find in these statements proof that Americans (a) like the current employer-based system, and (b) like it so much they would oppose a single-payer system? In these excerpts, the author of this summary, Ruy Teixeira, gives us not only two contradictory statements to sort out (the public does and does not want to replace the ‘current employer-based system’), but we’re supposed to understand what ‘a system of individual responsibility’ and ‘a government-run system’ means.

If we track down the polls these excerpts refer to, we discover that we have already encountered these polls, or polls like them, in Part 3 of this series.

I discussed in Part 3 of this series the 2003 Washington Post/ABC poll that Teixeira cites in the first excerpt. That poll found 62 percent support for a single-payer system, described in that poll as ‘a universal health insurance program, in which everyone is covered under a program like Medicare that’s run by the government and financed by taxpayers.’ So how does Teixeira account for the difference between the 62 percent support for single payer he reports in the first excerpt and the 38 percent level of support one or both of two Kaiser polls (Teixeira isn’t clear which) reported for a ‘government-run system’ in the second excerpt? He doesn’t say.

The Kaiser poll search engine (using the phrases ‘individual responsibility’ and ‘government run’) and a Google search turned up only one of the two Kaiser polls Teixeira refers to in excerpt 2 above - the January 2000 poll. That poll, which Teixiera cited as evidence that Americans prefer ‘the current system’ to a ‘system of individual responsibility,’ reads as follows:

Which of the following, option one or option two, do you think would be the better way to guarantee health insurance coverage for Americans? Option One is, building on the current system in which employers contribute to their employees’ health insurance, which they get through their job, and the Government covers the cost of insurance for the poor and unemployed, or Option Two which is, switching to a system in which all individuals would buy their own health insurance but would receive a tax credit or subsidy to help them with the cost of the plan.

Fifty-four percent chose ‘the current system’ versus 39 percent who chose what Teixeira called ‘a system of individual responsibility.’

In my last installment I discussed polls quite similar to the other (2003) Kaiser poll Teixeira cited (the one my search failed to turn up), a poll which, according to Teixeira, asked respondents to choose between ‘the current system’ and ‘a government-run system.’ The ominous phrase ‘government-run system’ sounds very much like the frightening phrase ‘government-run health care system’ conjured by the Gallup poll (discussed in Part 3). The 38-percent level of support Teixeira reports is within the range of Gallup poll results over the last decade - 32 to 41 percent - that I reported. This strengthens my hypothesis that the question Teixeira claims Kaiser asked in 2003 was very similar to the Gallup question. (It would help if people who urge readers to rely on polls for any reason would link readers to those polls or give more precise source information.)

The only other shred of information in the Century Foundation article that might give a ‘yes but’ comfort was this excerpt, which again contained contradictory statements:

In a December 2003 Harvard School of Public Health/Robert Wood Johnson/ICR poll, 80 percent supported expanding Medicaid/SCHIP; 76 percent supported employers being required to offer a health plan; and 71 percent supported a tax credit plan. Trailing these options, but still garnering majority support, were a universal Medicare plan (55 percent) and an individual coverage mandate plan (54 percent). … (Note: one of the only options that didn’t garner majority support … was a single or national health plan financed by tax payers that would provide insurance for all Americans [37 percent to 47 percent].)

Once again, Teixeira juxtaposes a poll showing majority support for single payer (55 percent) with another poll showing 37 percent support, and offers no explanation for the difference. As you can see, the two single-payer questions Teixeira refers to appear to have been part of a line-up of another half-dozen questions or so, including questions about proposals that wouldn’t come close to achieving universal coverage and none of which would cut costs.

To sum up, the Century Foundation article Hacker linked his readers to for evidence of our ‘stubborn attachment’ to the current system demonstrated nothing of the sort.

Polls Hacker relies on in his 2007 paper

In the paper he published in the Journal of Health Politics, Policy and Law in 2007 with Mark Schlesinger, Hacker argued for the ‘public option’ and against single payer. As he did in his Slate paper, Hacker argued that the ‘expectations’ and ‘values’ of the American people, not the insurance industry, constitute an intractable obstacle to single payer. At the outset of this paper, in a section entitled, ’Prevailing
American values as barriers to universal health insurance,” Hacker sought to make two arguments: Americans value choice of health insurance company, and they are scared of their government. The data he relied on to make this case were even more abstract and ambiguous than the data he relied on in his Slate article. I'll review the evidence he cites for his claim that Americans value choice among insurance companies first, and then examine the data he cites for his claim that Americans are afraid of a single-payer system.

Hacker’s argument that Americans value choice of health insurer (as opposed to provider) consisted almost entirely of these statements:

During the debate over health reform in the early 1990s, 81 percent of the public reported that it was important or essential for a proposal to give ‘people a choice of different types of health insurance plans’ (Louis Harris and Associates in 1994). When asked whether ‘seniors should have the option of picking a private health plan approved by the Medicare program to provide their health benefits,’ 82 percent of the public endorsed these choices (Zogby International 2003). Americans embrace choice of insurance not because they favor markets in health care per se but because they have so little trust in government, employers, or private insurance and want protection against problematic experiences (Blendon et al. 1998; Jacobs and Shapiro 1999).

Neither of the two polls and neither of the two papers Hacker cites support his conclusions. The papers deal exclusively with the backlash against managed care that occurred in the late 1990s. Those papers say nothing that could be construed as evidence that Americans ‘embrace choice of insurance’ and have ‘little trust in government.’ To give you some idea of how badly Hacker misinterpreted these papers, I have presented the abstract of the paper by Blendon et al. in the appendix to this paper (the Jacobs and Shapiro paper did not contain an abstract).

Now let’s look at the two polls Hacker cited to support his claim that Americans value choice of insurance company. The 1994 Harris poll posed this question:

As the Congress debates health care reform, they must consider several different goals. Please say for each of the following whether you think it is absolutely essential, very important, or not important .... Giving people a choice of different types of health insurance plans?

Thirty-six percent said ‘choice of... plans’ was ‘absolutely essential’ and 45 percent said it was ‘very important.’ But does this poll demonstrate that Americans value choice of insurance company?

This poll was conducted during May 23 to 26, 1994, while the debate over the Clinton bill – a bill which would have pushed middle- and lower-income people into HMOs and other tightly managed health insurance companies - was still in full swing. The poll question deliberately asked respondents to think about the current debate in Congress and the ‘goals’ that ‘Congress must consider.’ The context in which this poll question was asked, and the opening statement to the question, must have induced all or most respondents to think they were being asked whether they would approve of Congress reducing their choice of insurance companies. It is not surprising they said no to this question. But saying no cannot be construed as ‘attachment’ to the current system, and certainly not opposition to Medicare-for-all. Hacker’s claim to the contrary is equivalent to saying prisoners in a gulag are ‘stubbornly attached’ to gulag food because they told a pollster they would object to being given less of it. (This question and the responses were emailed to me by the Roper Center for Public Opinion Research at the University of Connecticut.)

The other poll Hacker refers to - a Zogby poll - misled respondents. The poll, conducted June 18-21 2003, asked if ‘seniors should have the option of picking a private health plan approved by the Medicare program to provide their health benefits.’ But the poll failed to ask respondents if they would feel the same way if they knew that allowing insurance companies to insure Medicare beneficiaries raises the cost of the entire Medicare program. This is a very well documented fact; every expert knows it to be true. Even Hacker and Schlesinger acknowledged it. How far support would have fallen had respondents been informed that their taxes would have to go up to give seniors the privilege of leaving the traditional Medicare program and enrolling with an insurance company? We don’t know. Zogby didn’t ask, possibly because the conservative Galen Institute was the sponsor of the poll.

Now for Hacker’s and Schlesinger’s claim that Americans are afraid of a government-financed single payer. This claim relied primarily on two polls conducted over several decades: the ‘General Social Survey,’ conducted by the University of Chicago, and the ‘National Election Studies’ survey conducted by the University of Michigan.

Hacker and Schlesinger claimed the General Social Survey supported the following baffling statement:

‘[W]hile approximately 80 percent of the public endorses some collective responsibility for health care finance, support for a completely collective role rarely garners majority support and, if so, then for only brief periods of time (see Figure 1)’ (page 252).

What does ‘some collective responsibility’ mean? How does it differ from ‘complete collective responsibility’? The latter seems to mean government pays for 100 percent of the national health care bill. But no country in the entire world does that. What does ‘health care finance’ refer to? Universal coverage? Less-than-universal coverage? A single-payer system? The current multiple-payer system?

The figure Hacker and Schlesinger refer to as evidence for this baffling statement is a bar chart, based on the General
Social Survey, showing bars for various years broken down by the proportion of the populace who support ‘collective,’ ‘individual,’ and ‘split responsibility for medical care.’ The figure indicates that from 1975 through 2000 roughly 50 percent of Americans supported ‘collective responsibility,’ 30 percent supported ‘split responsibility,’ and 20 percent supported ‘individual responsibility.’ How any reasonable person can conclude from these data that Americans oppose single payer because they fear government and value choice of health insurance company is beyond me. If we really must ask whether such ambiguous data dictate that we abandon or support a Medicare-for-all system, it would seem more reasonable to interpret these data to say a majority of the public will support Medicare-for-all.

To enhance your impression of how flimsy this bar chart is, consider the actual question asked by the GSS survey:

In general, some people think that it is the responsibility of the government in Washington to see to it that people have help in paying for doctors and hospital bills. Others think that these matters are not the responsibility of the federal government and that people should take care of these things themselves. Where would you place yourself on this scale [respondents were handed a card showing numbers running horizontally from 1 to 5], or haven’t you made up your mind on this?

Above number 1 on the card is the label, ‘I strongly agree it is the responsibility of government to help’ and above number 5 is the label, ‘I strongly agree people should take care of themselves.’

Similarly, Hacker and Schlesinger use data from the National Election Studies survey that is at best ambiguous and at worst (from Hacker’s point of view) favorable to single payer to spin a picture of Americans so ‘deeply divided’ about the role of government that single payer isn’t possible. They claim that a single question from this survey supports the following conclusions:

‘Americans have long been deeply divided about their preferred approach to expanding health insurance…. Americans … split evenly between those who favor administration of insurance benefits by the government and those who prefer subsidies for private insurers (table 2)’ (page 255).

The table they refer to shows that over the last half century roughly 45 percent favor ‘government insurance’ versus about 40 percent for ‘private insurance.’ Here is the question:

Some people feel there should be a government insurance plan which would cover all medical and hospital expenses for everyone. Others feel that all medical expenses should be paid by individuals, and through private insurance plans like Blue Cross and some other company paid plans. Where would you place yourself on [a seven-point] scale…?

There was, of course, no other information to help respondents interpret the key phrases in this question including ‘government insurance plan.’ Respondents had to rank themselves as a ‘1’ if they were strongly in favor of a ‘government insurance plan’ that paid all expenses for everyone, and 7 if they felt strongly in favor of ‘individuals and private insurance plans’ paying some unspecified portion of expenses, or some number in between if they felt less than strongly about their opinion. Hacker and Schlesinger treated everyone who ranked themselves as a 4 as undecided, and then treated all the 1, 2, and 3 people as for ‘government’ and all the 5, 6, and 7 people as for ‘private insurance.’

Summary

Even if we didn’t know that Hacker was an avidponent of the ‘politics, politics, politics’ mantra, and that this mantra amounts to little more than an excuse to make policy decisions based upon ambiguous and cherry-picked polling data, we might reach these conclusions simply by reading the two papers by Hacker I have reviewed here. In his 2006 article for Slate, and his 2007 paper for the Journal of Health Politics, Policy and Law, Hacker urged his readers to abandon single payer based on poll results that were not merely cherry-picked (with one unintended exception he excluded polls that showed two-thirds support for single payer), but, even after careful cherry-picking, were still unclear in their implications.

I am not saying polling data reveal that only a single-payer system attracts majority support. A fair reading of the polls (although not the citizen jury results) suggests that Americans would accept a variety of solutions to the health care crisis if they could be convinced that they would cover everyone and bring costs down.

I strongly disagree with Hacker, however, that the polling data demonstrates a majority wants to defend the current employer-based multiple-payer system and oppose a single-payer system. And I strongly disagree with the assumption that people who care about solving the health care crisis should examine polls first and then decide how to solve the health care crisis. If we must put our finger in the wind before we decide whether to support single payer, then let us at least consult research that used rigorous methodology, e.g., the citizen juries, and polls that inform their respondents about actual proposals. Let us not consult polls that use vague phrases like ‘people should take care of these things themselves.’

Appendix: Abstract of one of two papers Hacker misrepresented

In his paper with Mark Schlesinger published in the Journal of Health Politics, Policy and Law in 2007, Hacker cited two papers for support of this sentence: ‘Americans embrace choice of insurance not because they favor markets in health care per se but because they have so little trust in government, employers, or private insurance and want pro-
tection against problematic experiences.” Neither paper discussed lack of trust in government or employers. Both papers were about public hostility to the insurance industry. Below I present the abstract of one of the two papers (there was no abstract for the second one).

This paper examines the depth and breadth of the public backlash against managed care and the reasons for it. We conclude that the backlash is real and influenced by at least two principal factors: (1) A significant proportion of Americans report problems with managed care plans; and (2) the public perceives threatening and dramatic events in managed care that have been experienced by just a few. In addition, public concern is driven by fear that regardless of how well their plans perform today, care might not be available or paid for when they are very sick. (Robert Blendon et al., “Understanding the managed care backlash,” Health Affairs 1998;17(4):80-94))

Part 5: Celinda Lake's 'research' for the Herndon Alliance

One key player was Roger Hickey of the Campaign for America’s Future [CAF]. Hickey took ... Jacob Hacker’s idea for a new public insurance pool modeled after Medicare and went around to the community of single-payer advocates, making the case that this limited ‘public option’ was the best they could hope for. ... And then Hickey went to all the presidential candidates, acknowledging that politically, they couldn’t support single payer, but that the ‘public option’ would attract a real progressive constituency...

The rest is history. Following Edwards’ lead, Barack Obama and Hillary Clinton picked up on the public option compromise.

So what we have is Jacob Hacker’s policy idea, but largely Hickey and Health Care for America Now’s political strategy. It was a real high-wire act – to convince the single-payer advocates, who were the only engaged health care constituency on the left, that they could live with the public option as a kind of stealth single payer, thus transferring their energy and enthusiasm to this alternative.

That is how Mark Schmidt summed up the strategy of the ‘public option’ movement in a short piece for the American Prospect last August. Schmidt’s analysis, rarely seen anywhere else in the media, was correct. I would have added two details to Schmidt’s article.

First, Hickey and other ‘option’ advocates attempted to justify their abandonment of single payer by claiming most Americans opposed it. This ‘people don’t like it’ version of the ‘political feasibility’ argument against single payer was new. Prior to the emergence of the ‘public option’ movement, those who refused to support single payer on ‘political feasibility’ grounds claimed the insurance industry was too powerful to beat. They did not assert that Americans were opposed to single payer, no doubt because they knew such a statement was demonstrably false.

The other weakness in Schmidt’s analysis was his failure to mention the Herndon Alliance, ‘the most influential group in the health care arena the public has never heard of,’ as Carrie Budoff Brown put it in an article for Politico. It was the Herndon Alliance (of which CAF is a member) which manufactured the ‘evidence’ that Hickey and other ‘option’ advocates cited when they were making the rounds to Democratic candidates and progressive groups to urge them not to support single payer and to support the ‘option’ instead. It was the evidence they needed to state, with a straight face, ‘Americans are scared to death of single payer,’ to quote CAF’s Bernie Horn once more. (For information on the origins of the Herndon Alliance and Lake’s ‘research’ for the Alliance, see my paper here.)

The Herndon Alliance hired pollster Celinda Lake to produce the evidence they were looking for. Lake delivered the goods. Over the course of 2006 and 2007, she conducted focus group sessions and carried out at least two polls. By the fall of 2007, Lake turned over to the Herndon Alliance the results they had asked for. Lake ‘found’ that ‘people’ don’t like single payer. Instead they like something Lake called ‘guaranteed affordable choice,’ a label that would be changed two years later to ‘the public option.’

Roger Hickey, for one, wasted no time putting Lake’s ‘research’ to use. In November 2007, at an event sponsored by New Jersey Citizen Action, a chapter of USAction (a member of the Herndon Alliance and the soon-to-be-formed Health Care for America Now), he made this statement:

[T]he hard reality, from the point of view of all of us who understand the efficiency and simplicity of a single-payer system, is that our pollsters unanimously tell us that large numbers of Americans are not willing to give up the good private insurance they now have in order to be put into one big health plan run by the government. Pollster Celinda Lake looked at public backing for a single-payer plan - and then compared it with an approach that offers a choice between highly regulated private insurance and a public plan like Medicare. This alternative, called ‘guaranteed choice,’ wins 64 percent support to 22 percent for single payer.

I won’t bother asking why Hickey and the Herndon Alliance didn’t rely on the citizen jury and polling data I reviewed previously (in Part 2 and Part 3) that show two-thirds of Americans support a Medicare-for-all system. But it is worth raising this question: Why didn’t Hickey and the Herndon Alliance cite the polls that Jacob Hacker relied on? Why commission Lake to do more ‘research’ when Hacker was already convinced he had the evidence necessary to undermine the single-payer movement? By November 2007, when Hickey spoke to New Jersey Citizen Action, Hacker had published several papers examining polling data (including the 2006 and 2007 papers I reviewed in Part 4.)
I suspect the reason is that the Herndon Alliance didn’t find Hacker’s papers as compelling as Hacker did. They felt they needed research that produced more than the equivalent of a Rorschach blot. They needed research that focused specifically on single-payer and the public-private-plan choice proposal.

Lake’s “research”: "Mysterious forces" and "discount consumerism" are "values"

We had people in our focus groups saying, ‘Well, this is Canadian-style health care,’ and we found that the answer was, ‘No, no. This is American health care.’ And people would go, particularly those proper patriots who just love America, ‘Oh, well great. Then it’s got to be better. This is much superior.’ Now the irony is … that American-style health care does not include Medicare for all or a system-wide social security, both of which are frankly frighteningly flawed programs in the voters’ minds. (page 44)

These words were spoken by pollster Celinda Lake at a September 29, 2006 conference sponsored by the Herndon Alliance, just two weeks before Slate published the article by Jacob Hacker that I examined in Part 4. But whereas Hacker was misinterpreting polls taken by polling firms over which he had no control, Lake was accurately reporting on the ‘first round’ of her own ‘research’ over which she had complete control. Her ‘research’ was based on discussions with eight focus groups, each with eight to ten people, which her firm convened in Columbus, Ohio and Atlanta, Georgia in July and August of 2006 (see footnote 2 in Celinda Lake et al., ‘Health care in the 2008 election: Engaging the voters,’ Health Affairs 2008; 27:693-698).

But Lake shared Hacker’s agenda: to demonstrate that Americans like the existing health insurance system and fear a Medicare-for-all system. Hence her celebration of ‘patriots’ and their disdain for ‘Canadian-style health care.’ Hence her trashing of Medicare as a ‘frighteningly flawed program.’ Hence her recommendation that universal coverage advocates assiduously avoid the phrase ‘Medicare for all’ in favor of ‘choice of public and private plan’ (see page 81 of Lake’s presentation.)

At another Herndon Alliance conference held in November 2007, convened to hear Lake’s ‘findings’ from ten more focus groups that were held in Denver, Colorado, Concord and San Diego, California, Columbus, Ohio, and Orlando, Florida during June and July of 2007, Lake continued her assault on the idea that Americans would support a single-payer system. Again she claimed the people in her Atlanta and Columbus focus groups couldn’t stand the thought of Medicare-for-all or what she insisted on calling ‘Canadian-style health care’:

[W]e found that people want an American solution. My favorite epiphany is in the first round of work was everybody [says], ‘It’s going to be Canadian style health care.’ Americans don’t want Canadian style-health care. They want American health care. (page 17)

To make sure their audience got this point, the Herndon Alliance entitled this conference, ‘American Values, American Solutions.’

So what did Lake discover from her 2007 focus groups that ‘people’ did like? Amazingly, they liked exactly what Hacker had recommended a year earlier in his Slate article and six years earlier in a paper written for the Robert Wood Johnson Foundation. ‘People’ liked having a choice between private health insurance and a public program.

As Lake put it:

People don’t want to go to a government health care system. But they do like the idea of the government as the enforcer, the watchdog, the setter of standards, as you will remember in the first research. … [I]n the second round research we found … that they were fine with government offering a public plan. In fact they thought there was a lot of merit to having a choice between a private plan and a public plan. (page 15)

Lake had presented to her 2007 focus groups what she called a ‘guaranteed affordable choice’ proposal - a proposal that would give all Americans a choice between private insurance and a publicly run insurance program. Did she also present to them an accurate description of single payer? Almost certainly not, but we’ll never know for sure. Unlike the groups that convened the citizen juries I described in Part 2, Lake refuses to release the methodology she used in questioning her focus groups.

Lake has, however, released an extensive description of her methods for selecting her focus groups. This methodology is just plain bizarre. Lake says she or the Herndon Alliance (it is not clear which) hired a Fortune 500 consulting firm called American Environics to compile a list of 117 American ‘core values that shape views on health care.’ The list of ‘values’ included one pop-psychology phrase after another that might make sense to the marketing department of L’Oreal (one of the firms American Environics boasts it consults with) but are laughably irrelevant to the US health care reform debate.

Among the 117 ‘values’ were ‘brand apathy,’ ‘discount consumerism,’ ‘upscale consumerism,’ ‘more power for big business,’ ‘meaningful moments,’ ‘mysterious forces,’ ‘traditional gender identity,’ and ‘sexual permissiveness.’ ‘Discount consumerism’ was defined, for example, as ‘preferring to buy discount or private label brands, often from wholesalers.’ ‘Meaningful moments’ was described as, ‘The sense of impermanence that accompanies momentary connections with others does not diminish the value of the moment.’ (For a complete listing of these 117 ‘values,’ starting with ‘acceptance of violence’ and ending with ‘xenophobia’ - defined as ‘too much immigration threatens the purity of the country’ - see the appendix to the American Environics’ report here.)
On the basis of these ‘values,’ Lake somehow divided Americans into eight groups and gave them names like ‘Proper Patriots’ and ‘Marginalized Middle-Agers.’ Here is how Lake explained this process at the November 2, 2007 Herndon Alliance conference:

One of the things that we also did in the Herndon process was to identify key constituencies of opportunity at the values level. (page 20)

She then selected her focus groups to reflect these groupings. Notice how different this method of selecting focus group participants is from the method used by the organizers of the citizen juries I discussed in Part 2. The organizers of those events sought to select jurors who represented a cross-section of America. It seems highly unlikely that a ‘methodology’ that involved quizzing prospective focus group participants about ‘meaningful moments’ and ‘brand apathy’ would result in focus groups that represented a random sample of the American adult population.

**Celinda Lake’s poll**

The statements Lake made at Herndon Alliance meetings about how ‘people’ feel about Medicare and ‘guaranteed affordable choice’ were based on her focus group ‘research.’ The statistic Hickey quoted - ‘voters’ choose ‘guaranteed affordable choice’ over single payer by a margin of 64 percent to 22 percent - was produced by a poll Lake’s firm conducted in September 2007. (See page 23 of Lake’s presentation.)

The poll asked this question:

Which of the following two approaches to providing health care coverage do you prefer?

- An approach that would guarantee affordable health insurance coverage for every American with a choice of private or public plans that cover all necessary medical services, paid for by employers and individuals on a sliding scale; or
- A single government-financed health insurance plan for all Americans financed by tax dollars that would pay private health care providers for a comprehensive set of medical services.

(See page 18 of Lake’s presentation.)

There are four choices involving words or omission of facts that introduced bias into this question. But before we examine those biases, I want to call the reader’s attention to how badly Hickey misrepresented Lake’s poll. Hickey said ‘our pollsters unanimously tell us that large numbers of Americans are not willing to give up the good private insurance they now have in order to be put into one big health plan run by the government.’ That’s not what Lake’s poll said, even taking it at face value. Her poll asked respondents, ‘Which of two approaches ... do you prefer?’ A question that asks about preferences cannot be interpreted as evidence of what Americans ‘are not willing’ to do. If I ask you if you prefer tea or coffee, and you say coffee, I can’t claim you ‘are not willing’ to drink tea. I can only claim you prefer coffee over tea.

Here are four biases Lake introduced into her poll:

1. The definition of single payer includes the words ‘government’ and ‘tax’ while the definition of ‘guaranteed affordable choice’ does not.
2. The ‘tax’ in the definition of single payer is not described as ‘progressive’ or ‘sliding scale,’ but financing is described as ‘sliding scale’ in the ‘guaranteed affordable choice’ definition.
3. The ‘guaranteed affordable choice’ option is presented as if it were possible to ‘guarantee ... health insurance for every American’ without taxes, that is, without compulsory payments of some sort. The ‘guaranteed affordable choice’ option is described as ‘paid for by employers and individuals.’ That has a much more voluntary ring to it than ‘tax.’ But in fact no system of universal coverage can be achieved without compulsory payments of some sort by the populace. If Lake and her colleagues in the ‘option’ movement are actually claiming the ‘guaranteed affordable choice’ proposal will establish universal health insurance, then they cannot ethically describe single payer’s funding source as ‘taxes’ and not describe the payments by ‘employers and individuals’ under the ‘guaranteed affordable choice’ proposal as taxes.
4. Perhaps most importantly, Lake’s poll failed to explain the real consequences of the ‘guaranteed affordable choice’ proposal. These include the fact that Americans will not regain their freedom to choose their own doctor under ‘guaranteed affordable choice’ or any other proposal that leaves the current health insurance industry in place. Another unquestioned fact is that ‘guaranteed affordable choice’ cannot cut costs, which means taxes and/or compulsory payments will have to be higher and/or that coverage will be worse under the ‘guaranteed affordable choice’ proposal.

Even if Lake’s poll had asked about opposition to single payer and ‘guaranteed affordable choice’ rather than preferences between them, the poll was too biased to produce reliable results. Like the amorphous polls Hacker relied on, and like Lake’s focus group ‘research,’ Lake’s poll is no match for the rigorous research that shows that two-thirds of Americans support single payer.

**Invoking the ends to justify the means**

There was a time when Celinda Lake was more interested in the truth than in pleasing her patrons. In the early 1990s, Lake conducted polls and focus groups which led her to conclude that Medicare is a very popular program and that large majorities of Americans support a Medicare-for-all or single-payer system. In 1992, before she went to work for the Clinton administration and long before she went to work for the Herndon Alliance, Lake published an article in the Yale Law and Policy Review in which she made these statements:

Americans believe that the market system has failed completely in the medical arena. Their disillusionment with the private health insurance industry leads them to believe that even a governmental bureaucracy would
prove more efficient and provide less costly health care. In one western state, two-thirds of voters agree that health costs have surged so high that only a government health-care system can bring them under control. Almost two-thirds (62 percent) reject the idea that private industry will keep medical costs cheaper than would a government-run system with cost controls.... Sixty-nine percent support a universal government-paid system similar to the Canadian system.... Voters strongly support a national health-care system that mirrors or expands Medicare and see no reason why such a system cannot be established. National health-care reformers would do well to talk in terms of expanding Medicare. Just mentioning the words 'Medicare-like system' increases voters' support for any described system by about 10 percent. Framing the issue this way increases support across all age groups.... (Celinda Lake, ‘Health care: The issue of the nineties,’ Yale Law and Policy Review 1992;10(2):211-224).

In 1993, Jeff Cohen and Norman Solomon quoted Lake saying that the more people know about single payer the more they like it. Cohen and Solomon wrote:

> After conducting extensive focus groups on health care, pollster Celinda Lake discovered that the more people are told about the Canadian system, ‘the higher the support goes.’

In these excerpts, Lake sounds just like me and every other single-payer advocate in America - and very unlike the Celinda Lake of today. Her statements that two-thirds of Americans support single payer, that likening a proposed reform to Medicare ‘increases voters' support ... by about 10 percent,’ and that support for single payer rises as people learn more about it could have been made by any knowledgeable single-payer advocate at any time over the last two decades.

So what explains the difference in Celinda Lake’s findings and recommendations in 1992 and 1993 and her ‘findings’ and recommendations post-2005? Did American support for single payer really head south during those years? Did support really fall from the 69-percent level Lake reported in 1992 to the 22 percent level that Lake ‘found’ in 2007 and which Roger Hickey so enthusiastically reported to New Jersey Citizen Action that year? The citizen jury experiments and the survey research I reported in Parts 2 and 3 of this series, as well as a large body of other relevant evidence I have not reviewed (such as the undiminished popularity of the Medicare program despite constant attacks on Medicare by the right) demonstrates that public support for single payer did not fall over those years.

What changed was Celinda Lake’s attitude about single payer. Apparently, Lake came to believe what Jacob Hacker believes: that politics must be elevated above policy; that means may be justified by the ends; that corrupt ‘research’ may be pawned off as rigorous research if the cause is good enough; and that the single-payer campaign may be sabotaged for the higher good as defined by the leaders of the ‘public option’ movement. Lake apparently came to believe, to quote an infamous memo, that ‘the facts’ were going to have to be ‘fixed around the policy’ and that it was her job to create the ‘facts.’

**Part 6: Should polls matter?**

I am here today to say I think the employer-based health care system is dead. I think we need to find a system that’s not built on the back of the government. I am here to also say I don’t think we need to import Canada or any other system. We are going to build an American system because we are Americans and we don’t like any other system. So we are going to build our own..... This is now simply a question of leadership and political will. It is not a question of policy. No more policy conferences. (See pages 15-16 of the transcript of the conference proceedings.)

Those were the remarks of Andy Stern, president of the Service Employees International Union, a member of the Herndon Alliance and Health Care for America Now (HCAN). Stern made those comments at a June 16, 2006 conference sponsored by the Brookings Institution and the New America Foundation.

It is interesting to consider how similar Stern’s remarks are to those of other ‘option’ movement leaders I have quoted in this six-part series. Like Celinda Lake, Jacob Hacker, Roger Hickey (Campaign for America’s Future) and Bernie Horne (also CAF), Stern has no qualms about promoting the insidious claim that single payer cannot be enacted in America because ‘Americans’ don’t want it. Like Hacker, Stern preaches opportunism dressed up as political wisdom (he calls for more ‘political will’ and no more stinkin’ ‘policy conferences’).

**Fixing the “facts” around the policy**

But what I find most intriguing about Stern’s anti-single-payer remarks is the date they were made. They were made on June 16, 2006, which was after the Herndon Alliance hired Celinda Lake to produce ‘research’ showing Americans don’t want a Medicare-for-all system, but several weeks before Lake convened her first focus groups and three months before Lake would reveal her ‘results’ at a Herndon Alliance conference. We know Lake had to have been hired by the Herndon Alliance no later than May 2006 because that was the month she and American Environics published the goofy Road Map to a Health Justice Majority (the one that listed 117 ‘values’ like ‘brand apathy’), which, according to Lake, gave her the information she needed to select the right mix of ‘Proper Patriots’ and ‘Marginalized Middle-Agers’ for her focus groups. But we also know Lake did not host the first Herndon Alliance focus groups until July 2006.

Thus, in June 2006, Stern had no data - no focus group research, no poll results - to support his remarks. In fact, as we have seen in Parts 2 and 3 of this series, the best research
showed that Stern had it backwards, that for at least the previous two decades two-thirds of Americans supported a Medicare-for-all system. But as one of the movers and shakers within the Herndon Alliance, Stern had to have known Celinda Lake would shortly deliver results from her focus group ‘research’ designed to lend credence to his comments. But unlike Roger Hickey, Richard Kirsch, and other leaders of the Herndon Alliance who refrained from claiming single payer was ‘un-American’ until they had Lake’s ‘findings’ in hand, Stern could not contain himself. Stern was so eager to undermine the single-payer movement that he announced Lake’s ‘facts’ before Lake ‘documented’ them.

It appears Stern also knew that Lake would ‘find’ that Americans liked the ‘public option.’ At the June 2006 conference, Stern blurted out this strange statement: ‘I think the single payer issue is a stalking horse for I am not sure what because we are going to have a multi-payer system … in America.’ (page 20) The statement is strange because the two parts of the sentence don’t connect, and because the statement came out of the blue. If you read the half page of the transcript that precedes this statement, you will see how completely out of context it was. Why did Stern have the ‘single payer as stalking horse’ metaphor on his mind? Why did he use the metaphor and then fail to explain what single payer was a ‘stalk ing horse’ for?

The only explanation that makes sense is that Stern and other Herndon Alliance leaders had decided earlier (probably in 2005) to substitute the ‘public option’ for single payer; they had already anticipated that conservatives would characterize the ‘option’ as a ‘stalk ing horse for single payer’(that’s in fact precisely what did happen); and Stern, in his eagerness to move the anti-single-payer campaign along, inadvertently opened a window, however briefly, onto this Herndon Alliance secret.

If my hypothesis is correct, the secret that Stern was so tempted to reveal was that the Herndon Alliance had decided by no later than June 2006, and probably much earlier, that it would seek to take single payer off the table and replace it with the ‘public option,’ and they would hire Celinda Lake to create the ‘facts’ that justified their decision to sabotage the single-payer campaign.

Should polls have been influential with leaders of the "public option" campaign?

Unlike Stern, other representatives of the Herndon Alliance managed to keep their anti-single-payer remarks in check until Celinda Lake published her focus group and survey ‘research.’ From that point on, the company line within the Herndon Alliance and (after the formation of HCAN in July 2008) within HCAN was that ‘public opinion research’ had forced its advocates to abandon single payer and endorse the ‘option.’

For example, after announcing in his June 2009 comment that Americans are ‘scared of single payer,’ Bernie Horn, CAF’s blogger, asked rhetorically, ‘How do we know this?’ His answer:

Over the past two years, progressive groups have conducted an unprecedented amount of public opinion research about universal health care. Usually it’s the conservatives who have all the polling data.

For the sake of discussion, let’s take the ‘option’ campaign leaders at their word and assume they consulted polls first and set policy second. And let’s also assume they honestly overlooked the citizen jury and survey research I reviewed in Parts 2 and 3. Assuming all that, let us now ask: Should people who seek to change society in fundamental ways consult polls before they make decisions about how they will do that? Would the single-payer movement, for example, have been well advised to mimic the Herndon Alliance and conduct its own surveys before deciding to undertake a campaign for single payer? No!

Why not?

First, people who seek to make social change must have some familiarity with the society within which they hope to make change. If they must consult polls to know how their fellow citizens will react to their efforts, they are probably in the wrong business.

Second, public opinion is malleable, especially on complex issues. To put this another way, the context - the environment - within which people are asked to express an opinion matters, and that context can be changed, for better or worse, by human effort. Treating survey data as evidence of ‘barriers’ to social change, which is how Jacob Hacker and other ‘option’ advocates have treated their cherry-picked polling data, is equivalent to saying public opinion can’t be changed and that solutions to problems must be tailored to fit the allegedly immutable public ‘values.’ In short, giving polls as much deference as they have allegedly been given by ‘option’ campaign leaders can be tantamount to abandoning fundamental reform in favor of more incremental reform, especially if the polls in question were sloppily done or misinterpreted.

The political use of polls

We have already encountered evidence for this conclusion. In the discussion of the 1993 Jefferson Center citizen jury we saw that that jury rejected President Bill Clinton’s Health Security Act at a time when polls were saying a majority of the public supported it. The difference was immense: Only 21 percent of the jury supported Clinton’s bill compared with roughly 60 percent in contemporaneous polls. The polls, limited as they always are in the amount of information they could provide, were woefully inadequate predictors of how Americans would feel about Clinton’s bill once they knew the most important facts about it. This truly American jury went on to endorse Sen. Paul Wellstone’s single-payer legislation by 71 percent. If we gave credence to the polls taken in the fall of 1993 (which is when the Jefferson Center jury met) and knew nothing about the citizen jury, we would have concluded American opinion was considerably more conservative than it was.
A 2009 paper entitled, 'The political use of poll results for a privatized health care system in Canada,' confirmed this thesis that polls can serve as the handmaiden of the right wing. The paper reported on the results of an experiment in Montreal in which the investigators first polled a group of people about how to finance universal health insurance in Quebec, and then subjected them to a crude version of the citizen-jury education process and posed the same questions again. (Damien Contandriopoulos and Henriette Bilodeau, Health Policy 2009:90:104-112.) There was an enormous difference between the answers the group gave upon initial polling and after they had been exposed to more information and given an opportunity to talk among themselves. Moreover, the results of the post-quasi-citizen-jury poll were substantially to the left of the first poll results.

The experiment was conducted on behalf of the Clair Commission, a commission established by the province of Quebec in 2000 to recommend changes in its single-payer, universal coverage system. The commission met at the end of a decade of intense debate throughout Canada about whether Canada’s single-payer system would be better off if, among other things, Canada’s universal health insurance system were financed less by taxes (the liberal position) and more by out-of-pocket payments by patients, also known as ‘user contributions’ (the conservative position). The commission convened ten focus groups, with 12 people in each group selected to represent a cross-section of Montreal’s population. The commission initially gave the focus groups only four choices: increase taxes, remove coverage of certain services, create a special fund, or require more patient out-of-pocket payments.

Commission staff made what was apparently a superficial presentation of the issues raised by these options and then, before the groups had a chance to talk among themselves, asked for a vote. The largest vote-getter on this first round was more ‘user contributions,’ something conservative groups in Quebec had been promoting through advertisements and other means. Thirty-four percent voted for this option. After this vote was taken, some of the participants objected to their limited set of options. According to the authors, the objections were probably motivated by a desire, clearly expressed by some participants, to add a progressive tax (not merely ‘taxes’) to the option list. In any event, prior to the final vote, ‘refusal to choose any of the options’ was added as a choice but ‘progressive tax’ was not added. After the presentation of more information and a chance for participants to talk and debate, a final vote was taken. A gargantuan 62 percent chose ‘refuse to choose.’ The other four options - the ones the commission staff was seeking the groups’ opinion on - together garnered only 38 percent of the vote. The main loser was ‘user contributions,’ now only 13 percent chose that solution.

For whatever reason, the Montreal ‘jury,’ armed with information and emboldened by the opportunity to compare values and perceptions with one another, rebelled against its handlers and refused to go along with the limited choices they were given.

The authors remarked:

[T]his example shows that it is perfectly possible - and probably even common - that poll results do not reflect the opinions respondents would have provided if they had been given the time or the opportunity to reflect on the issues. (Page 109)

The Montreal experiment reveals the same pattern we have seen in the citizen jury and polling data I reviewed in Parts 2 and 3 of this series. Knowledge about a subject, including the knowledge generated by a debate about it, can produce measures of public opinion that produce results quite different from survey results, especially results generated by uninformative or biased poll questions. And, as was the case with the Montreal jury, we have seen that the direction of this opinion shift is away from the status quo and incremental reform and toward fundamental reform.

To recap Parts 2 and 3: We saw that the two citizen juries produced support levels as high as the 70-plus-percent range; that polls which compared single payer to Medicare or some other existing single-payer system produced support levels in the 60-to-70-percent range; and that polls which provide little information or misinformation tend to produce support levels below 60 percent.

The founders of the ‘option’ campaign did not fall off the turnip truck yesterday. They were well aware of the fact that polls can produce biased and inaccurate results. Nevertheless, they decided to feign great deference to amorphous polls badly interpreted, and to biased polls.

**Single payer is the only solution**

There is a third reason - one specific to the health care crisis - why consulting polls first and adopting strategy and policy second is a bad idea. And that is that a single-payer system is our only way out of this mess. We must get US health care costs down for both economic and moral reasons. But we must also get costs down for political reasons. Andy Stern can talk all he wants about finding the ‘political will’ to extend coverage to everyone, but until we as a society find the political will to cut health care costs, we won’t find the political will to achieve universal health insurance. The sooner influential people like Stern can find within themselves the political will to support effective cost containment, the sooner Congress will do likewise, and the sooner we will achieve universal coverage.

Single payer has no peer as a cost-containment method. Every other remedy that has been discussed in this country over the last four decades, and every remedy currently under debate in Congress - more electronic medical records, more report cards on clinics and hospitals, more preventive services, more ‘disease management,’ more ‘coordination between teams of doctors’ as our president is wont to put it, more research comparing the effectiveness of treatments, and the tiny ‘public option’ - every one of those ideas remains, at
best, unproven as a cost-containment method, and in some cases will actually raise costs.

To paraphrase Stephen Colbert, the facts have a single-payer bias.

Concluding thoughts on this series

In the spring of 1989, the organizations I was working for (Minnesota Citizens Organized Acting Together and the Health Care Campaign of Minnesota) officially adopted the position that we could not achieve universal health insurance unless we cut the high cost of health insurance in Minnesota and America. I was given the job of organizing a discussion within both organizations about how to achieve real cost containment. Those discussions went on throughout the latter half of 1989, and occurred in a dozen cities throughout Minnesota. In December 1989, both organizations endorsed the single-payer solution.

At no time during those discussions did the people I worked with adopt the Herndon Alliance/HCAN attitude that we had to put our fingers in the wind before we endorsed a solution. We certainly weren’t oblivious to the power of our opponents; in fact, the ‘political feasibility’ question was front and center throughout those discussions. Perhaps it was because polls inquiring about public attitudes toward single payer were nonexistent, or at least unknown to us, when we began our deliberations. Perhaps it was because members of the discussion groups were not members of or close to the political elite and therefore felt no need to temper their policy recommendations with a desire to make the elite comfortable. Perhaps it was because many of us had devoted a substantial portion of our lives to social change of one form or another and were comfortable with our own judgment, unaided by polls, that a Medicare-for-all system was well within the mainstream of American opinion. For whatever reason, it never once crossed our minds that we ought to hire a pollster to convene focus groups and conduct polls before we made up our minds about what policy to endorse.

Instead, we did what people have done throughout the history of democracy: We reached out to as many individuals and groups as our resources allowed, we did our best to present the facts to each other and to hear each other out, and then we made a decision. We endorsed a single-payer system.

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Endorsers of Single-Payer National Health Insurance

Medical Organizations
American Association of Community Psychiatrists
American Medical Student Association (national and chapters)
American Medical Women’s Association
American Nurses Association
American Public Health Association
CA Health Professional Student Alliance
California Nurses Association/National Nurses Organizing Committee
Falls City Medical Society, Kentucky
Health Care for All Texas
Health Care for the Homeless, Inc.
Kentucky Psychiatric Medical Association
National Association of Social Workers
National Health Care for the Homeless Council
National Medical Association
New Mexico Network of Health Professionals for a National Health Program
Puerto Rican College of Physicians and Surgeons

Faith Organizations
Assembly of the Urban Caucus of the Episcopal Church
Church Women United
General Board on Global Ministries of the United Methodist Church
Presbyterian Health, Education and Welfare Association of the Presbyterian Church (USA)
Social Justice and Ministry Committee of Saint John the Baptist Parish, Collegeville, MN
Unitarian Universalists Association of Congregations

State Governments
Kentucky House of Representatives
Maine House of Representatives and Maine Senate
New Hampshire House of Representatives
New York State Assembly and New York Senate

Local Governments
Alachua County Commissioners, Gainesville, FL
Albany County, NY
Albany, NY
Allegheny County, PA
Ambridge, PA
Arcata, CA
Austin, TX
Baltimore, MD
Beaver County Commissioners, Western PA
Bellingham, WA
Bergen County Board of Freeholders, NJ
Bergen County New Jersey Chosen Freeholders
Bloomington, IN
Boston, MA
Boyle County, KY
Camden, NJ City Council
Chicago, IL
Cortland County Legislature, NY
Cortland, NY
Corvalis, OR
Detroit, MI
Erie, PA
Flint, MI
Gainesville, FL
Hamtramck, MI
Hancock County Democratic Committee, ME
Hoboken, NJ
Hudson County Board of Freeholders, NJ
Indianapolis, IN
Ithaca, NY
Leon County Democratic Executive Committee, FL
Livingston County, NY
Lorain County, OH
Lorain, OH
Louisville, KY
Marion County, IN
Morehead, KY
Morgantown, WV
New Albany, IN
Oberlin, OH
Philadelphia, PA
Pittsburgh, PA
Rensselaer County, NY
San Francisco, CA
Santa Cruz County, CA
Santa Cruz, CA
Schuyler County, NY
St. Lucie County, FL
The City of Englewood, NJ
Tompkins County, NY
Troy, NY
Tuskegee, AL
Ulster County, NY
University City, MO
Warren County, TN
West Hollywood, CA
Wilkinsburg, PA
Wilmington, DE
Civic/Community Organizations
Alliance for Retired Americans (ARA), Cape May County, NJ Chapter #01042
American Library Association
Americans for Democratic Action
Amnesty International
City of Richmond Commission on Aging
Consumer Federation of America
Consumers Union
Forward Equality
Human Rights Justice Forum
League of Women Voters
Midcoast Health Care Reform (South Thomaston, Maine)
National Council of Senior Citizens
National Family Farm Coalition
Our Bodies, Ourselves
OWL
Patriots for Change (Chagrin Falls, OH)

Peace, Living Wage, Universal Health Care Coalition
(Wilmington, DE)
The U.S. Conference of Mayors
US Public Interest Research Group
Women's Community Cancer Project (Cambridge, MA)

Political Organizations
Butte-Silver Bow County Democratic Central Committee, MT
Chester County Pennsylvania Democratic Committee
Colorado Democratic Party
Democratic Party of Milwaukee County
Meyerland Area Democratic Club, Houston, TX
Progressive Democrats of America
Single-Payer Action Network (SPAN), Ohio
Skagit County Democratic Party
U.S. Green Party
West University Area Democrats, Houston, TX
Woolwich, Maine Democratic Committee

Labor Organizations
State AFL-CIOs:
Alabama
Alaska
Arizona
Arkansas
California
Colorado
Connecticut
Delaware
Florida

Georgia
Idaho
Iowa
Kansas
Kentucky
Maine
Maryland-D.C.
Massachusetts
Michigan
Minnesota
Missouri

International/national unions:
AFGE
AFM
AFSCME
AFT
CNA/NNOC
CSEA

CWA
IATSE
IFPTE
ILWU
NALC

NEA
OPEIU
SEIU
SMWIA
UA
UAW

Montana
Nebraska
Nevada
New Hampshire
New Jersey
New York
North Carolina
North Dakota
Ohio
Oklahoma
Oregon

Pennsylvania
Rhode Island
South Carolina
South Dakota
Tennessee
Texas
Vermont
Washington
West Virginia
Wisconsin
Wyoming

UE
USW
UTU
UWUA
Part 3

Single-payer national health insurance is the solution

Talking point 8:
Single payer removes corporate barriers to practicing medicine.


Commentary

Reins Or Fences: A Physician’s View Of Cost Containment
by Kevin Grumbach and Thomas Bodenheimer

The days when American physicians could practice medicine unfettered by concerns of cost are rapidly vanishing. The emphasis of health policy debate is no longer, “Should we attempt to contain costs?” but, “How should we control costs?” In this context, the medical profession’s traditional resistance to the setting of limits in any form is unlikely to remain a credible position. Far more productive will be physicians’ engagement in the selection of cost containment strategies that best preserve professional integrity and minimize disruption of patient care.

Expenditure targets and utilization review exemplify markedly different approaches to cost containment. Congress, following the recommendations of the Physician Payment Review Commission (PPRC), recently adopted expenditure targets for the Medicare program despite a highly visible campaign of opposition by organized medicine. Expenditure targets and expenditure caps are prominent cost containment strategies in other nations, most notably Canada and Germany. In contrast, strict utilization review linked to payment decisions is a singularly American approach to cost control. Nearly 60 percent of private health insurance plans in the United States, in addition to Medicare and Medicaid, now feature some form of utilization review. Yet, compared with expenditure targets, the rapid growth of utilization review appears to have provoked far less organized opposition from American physicians.

In this Commentary, we discuss the different implications of expenditure targets and utilization review from the point of view of practicing physicians. One of our principal considerations is the extent to which these measures impinge on physicians’ clinical freedom. The analogy of the medical commons provides an illustrative context for understanding how physicians may experience the growing tension between pressures to limit resources and desires for clinical freedom.

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The Medical Commons

The predicament of limited resources, both in health care and other areas, has been likened to a herd of cattle grazing on a common pasture of finite capacity. Adapting the analogy of the commons to the contemporary cost containment setting, the total grazing area may be regarded as the entirety of economic resources in the United States. The smaller pasture dedicated to health comprises a portion of that grazing area. The herd represents the nation’s physicians, grazing on the financial resources of the commons in the process of providing services to patients.

Physicians, guided by medicine’s moral imperative to “do everything possible for the individual patient,” continually attempt to extend the borders of the medical pasture. As health care costs as a percentage of U.S. gross national product (GNP) rose from 5.2 percent in 1960 to 11.1 percent in 1988, the boundaries of the pasture dedicated to health care steadily expanded within the overall societal commons.

But communities outside the medical pasture increasingly view the herd as encroaching on resources needed for other pursuits. The organized payers-government and employers-who plant much of the “green” on the medical commons, are intent on protecting their larger commons from what they see as the relentless expansion of the medical herd. Conflict is intensifying between the contrary drives of physicians, seeking maximum care for their patients in an era of scientific breakthroughs, and the cost containment impulses of the payers planting the commons. The unencumbered open range, like the American doctrine of manifest destiny, is a thing of the past.

There are two fundamentally different manners of restraining resource use on the commons: placing individual reins on each member of the herd to control grazing on the open range (utilization review), or building a fence around the medical pasture to limit the total area of grazing available but leaving the individual cattle unharnessed (global budgetary controls such as expenditure targets). Which form of restraint, reins or fences, least threatens physicians’ clinical freedom?

Professional autonomy. It is important to define exactly what we mean by “clinical freedom.” Physicians frequently wave the banner of professional autonomy with great rhetorical flourish and lack of precision. In our view, clinical freedom is the ability of the physician to deliver medical care to a patient without the uninvited imposition of outside influences whose purpose is not the optimal health of the patient. Clinical freedom allows physicians to fulfill their role as the patient’s agent in performing those services believed beneficial to the patient’s well-being. It follows that quality-assurance peer review conducted within hospitals and group
practices should not be construed as a loss of autonomy; it is (or should be) invited by the physician, with the goal of improved patient care.

Nor is clinical autonomy linked with the fees a physician receives. Negotiation and regulation of fees by third-party payers is clearly warranted; it is the exceptional physician who expects to be paid whatever he or she chooses to bill. But to the extent that cost-control mechanisms wrest away from the physician the ability to determine the type and quantity of services, physicians’ autonomy is reduced. Organized medicine frequently confuses freedom to set fees with clinical freedom. In Canada, one member of the Ontario Medical Association testified in opposition to the province’s policy to prohibit extra-billing of patients above the government fee schedule: “It is our duty to ourselves, to medical students now in training, and to those yet unborn who will carry on our profession in the 21st century, to resist, in any and every possible way, this mortal attack on our professional freedom.”

The “professional freedom” defended so assiduously in this case has little to do with the notion of clinical autonomy we have proposed. In their analysis of the controversy surrounding Canada’s extra-billing ban, a Canadian physician and his colleagues concluded that “the end of extra billing did nothing to interfere with clinical practice.” Unfortunately, appeals about professional autonomy, when the issue is really economic gain, simply create confusion in instances when clinical autonomy or the health of patients is genuinely at risk. True clinical freedom is important to patients as well as physicians. Patients should have the right to consult, and make decisions with, their physician under conditions of privacy, free from the interference of outside parties whose primary interest in the patient/physician interaction is to reduce the costs of that interaction.

Economic realities dictate that the era of absolute clinical autonomy is over. Whether by reins or fences, physicians will have to consider costs when making clinical decisions. Different cost containment strategies may, however, impinge on clinical freedom in very different ways.

Reins And Fences: Cost Control And Clinical Autonomy

Utilization review. Let us now return to the medical commons and explore the impact of two contrasting cost-control methods on clinical autonomy. Utilization review (“reins”) is the surveillance of and intervention in the clinical activities of physicians through such methods as preadmission authorization for hospital care, concurrent review of length-of-stay, mandatory second opinions, and retrospective claims review. Holding the reins are agents of the payers-peer review organizations (PROs) or cost management firms who tighten them whenever physi-
cians are perceived to be grazing outside the perimeter of practices found acceptable to the payer. The most stinging forms of utilization review employ the prod of payment denial for services received. (Total payment denial for legitimate services, in contrast to fee schedules, does have an impact on clinical freedom because it provides a 100 percent negative incentive for providing certain services.)

Supporters of utilization review might argue that this cost-control method selectively eliminates unnecessary services and is thus justified as a clinical intrusion on quality-of-care grounds. There is evidence that physicians in the United States perform large numbers of inappropriate procedures and suspicion that much of what constitutes “appropriate” standards of practice lacks proven efficacy. But does utilization review really catch the “stray cattle” grazing unnecessarily, apart from the accepted standards of the herd, without restricting the clinical autonomy of more conscientious physicians?

Tarnishing such an ideal vision of utilization review is a pervasive uncertainty about exactly what constitutes appropriate care. In one study of the utilization review decisions of Arizona’s Medicare PRO, two community physicians conducted a blind review of hospital admissions previously evaluated by the PRO. The community physician reviewers would have denied 28 percent of the admissions approved by the PRO and would have allowed 39 percent of the admissions denied by the PRO. Worse yet, the two community reviewers disagreed with each other in 48 percent of the cases. In another study, The RAND Corporation convened a panel of experts to review detailed medical records of Medicare patients receiving coronary angiography, upper gastrointestinal endoscopy, or carotid endarterectomy. Even among these experts, there was “substantial disagreement” about the appropriateness of 25 percent of the endoscopies and 32 percent of the endarterectomies.

A physician writing in The New York Times described making daily visits to a patient terminally ill with lung cancer during the last eighteen days of her life. The patient was increasingly short of breath, weak, and unable to eat; decisions on her care had to be made daily. The physician was told by Medicare that the visits were medically unnecessary. The 73 percent of American physicians who have experienced Medicare claims denials no doubt could add many examples of the difficulty distinguishing between appropriate and inappropriate care. Even strict practice guidelines, currently under development, will likely be unable to eliminate the gray areas of uncertainty that color so much of what William Osler called “an art which consists largely in the balancing of possibilities.”

The harness and prod of utilization review have turned American physicians into the most “second-guessed and paperwork-laden physi-
cians in western industrialized democracies.\textsuperscript{11} Utilization review also requires a large bureaucratic force to ride the herd, holding the reins of the many individually harnessed cattle. It is no wonder that the United States has the highest ratio of health care bureaucrats to health caregivers in the developed world, causing the administrative costs of the American health system between 1980 and 1986 to grow at more than double the rate of overall health cost increases.\textsuperscript{12} Proposals to expand current utilization review practices into the ambulatory sector (as currently planned by public and private payers) are daunting. Former Health Care Financing Administration head William Roper admitted that “the task of monitoring 11 million admissions from 7,000 hospitals for 475 DRGs [diagnosis-related groups] pales in comparison with that of reviewing 350 million bills from 500,000 physicians for 7,000 different procedure codes.”\textsuperscript{13}

**Expenditure targets.** An alternative to the rein is the fence: a global boundary that surrounds the medical commons, setting clear limits on the amount of money budgeted for the health system. “Fences” are exemplified in expenditure targets; global budgeting of hospitals, as occurs in Canada and many European nations, is a related strategy. International experience suggests that fences are far more effective than individually placed reins in controlling costs, since they set defined budgetary limits and avoid the bureaucracy factor required by utilization review.\textsuperscript{14} But what is the impact of fences on clinical autonomy?

In contrast to utilization review, global limits such as expenditure targets focus on the collective behavior of large groups of doctors and patients, rather than on individual physician/patient encounters. If physicians as a group provide so many services that budget targets are exceeded, fees are adjusted downward, creating a general incentive for more judicious use of resources. While strict global limits delineate boundaries on the common that circumscribe the ultimate clinical freedom “to do everything possible,” these boundaries distance the cost-control process from day-to-day clinical decisions. Without the constant intrusion of external utilization review, clinical autonomy is enhanced.

If the physician community finds that certain members of the herd are growing fat by consuming too much greenery at the expense of others, it becomes the responsibility of the profession to discipline such greedy members. With the development of medical practice parameters operating within global expenditure controls, collegial action against the errant individual is possible, making use of quality assurance bodies within medical societies and hospital staffs.\textsuperscript{15}

Naturally, the construction of fences will create difficulties. Where to place the fence will occasion negotiation and strife.\textsuperscript{16} The locus of the battle will shift from the bureaucratic conflict of utilization review to the
political conflict of global budgeting—in the words of Canadian economist Robert Evans, from “diffuse distress” to “orchestrated outrage.” Nonetheless, global budgetary methods allow physicians to exercise internal professional review against a few outliers, while utilization review requires outside agents to scrutinize the daily decisions of all physicians.

Fences such as expenditure targets and caps also may compel physicians to recognize an additional fact: the medical commons becomes increasingly crowded as the physician-to-population ratio grows. While most industrialized nations are experiencing increases in physician supply, this trend is particularly dramatic in the United States. Global budgetary strategies may give the medical profession a greater incentive to collaborate with government and teaching institutions to exert greater “population control” over the physician herd.

Conclusion

Traditionally, organized medicine in the United States has been most vigorous in lobbying against fee controls and budgetary limits and, in particular, against vesting in a publicly administered universal health care system the authority to erect fences in a global fashion. Uwe Reinhardt has commented on the irony of this political strategy:

The less tightly society controls the overall capacity of its health system and the economic freedom of providers to...price their services as they see fit, the more direct appears to be the private or public payer’s intrusion directly into the doctor-patient relationship- the less clinical freedom at the level of treatment will payers grant the providers. In fighting as tenaciously as they have for the principle of free enterprise in medicine... American physicians seem unwittingly to have surrendered much of their clinical freedom—a freedom still enjoyed to a much greater extent by their colleagues abroad.

In the absence of fences around aggregate costs, payers will have no recourse but to tighten individual harnesses on physicians in an attempt to better restrain expenditures.

No cost containment approach will be entirely free of discomfort for physicians. As our nation continues to experiment with different cost containment measures, we believe physicians and policymakers should carefully consider factors such as clinical autonomy when evaluating these measures. American physicians are likely to experience continuing erosion of their clinical freedom as long as utilization review remains a prominent feature of U.S. cost containment policy. Global budgetary strategies represent a more effective and less cumbersome alternative.
NOTES

3. Hiatt, “Protecting the Medical Commons.”
16. See J. Lomas et al., “Paying Physicians in Canada: Minding Our Ps and Qs,” Health Affairs (Spring 1989): 80-102, for a discussion of the political conflict over physician expenditure targets and caps in Canada. Most functioning systems of expenditure targets or caps are predicated upon health care systems that either are a public monopsony (for example, Canada) or feature explicit government coordination of a multipayer universal insurance system (for example, Germany. See Kirkman-Liff, “Physician Payment and Cost-Containment Strategies”). Both the success and political volatility of America’s venture into expenditure targets for Medicare may be tempered by cost shifting in response to an expenditure target instituted for only a single (though major) payer among many.
17. Evans et al., “Controlling Health Expenditures.”
Physicians Who Have Practiced in Both the United States and Canada Compare the Systems

Abstract

Objectives. The aim of this study was to examine the US and Canadian systems from the unique perspective of physicians who have practiced in both Canada and the United States.

Methods. Questionnaires were sent to 355 Canadian physicians who graduated from US medical schools and 347 US physicians who graduated from Canadian medical schools.

Results. The overall response rate was 59% (65% of US-graduated Canadian physicians and 54% of Canadian-graduated US physicians). Thirty-six percent of the respondents were “dual experience” physicians; that is, they had practiced medicine in both countries after completing their medical training. Physicians who left Canada were more likely than those who left the United States to indicate dissatisfaction with the health care system as a reason for leaving. Respondents expressed greater professional satisfaction with their current country of practice, but overall, dual-experience physicians in the United States favored that system only slightly more than the Canadian system, whereas those in Canada rated the Canadian system significantly better than the US system.

Conclusions. The comparatively weak rating of the US system by dual-experience physicians underlines the need for health care reform. (Am J Public Health. 1993;83:1544–1548)

Introduction

In the United States, interest in the Canadian health care system is widespread.1–3 A large percentage of the US public favors extensive health care reform.4 Proposals for reform have sometimes drawn heavily on the Canadian model,5 although this model has been viewed with skepticism by others.6–8 Such skepticism has been fueled by signs of increasing stress within the Canadian system in recent years. Rising costs, efforts at cost control in the face of increasing benefits, and stagnant or depressed earnings among physicians have placed the Canadian health care system in jeopardy.9–12

Analytical comparisons between the US and Canadian health care systems can sometimes exclude the human side of the equation.13–14 Given the close proximity of Canada to the United States, a sizable number of health professionals have had direct experience as providers in both systems. These physicians have a unique perspective that should be of particular interest to those seeking insights into methods of health care delivery. Yet the literature on the subject to date has been limited.15–17 The current study takes this inquiry a step further.

Methods

Using the 1987 Canadian Medical Directory, we identified all Canadian physicians (488) who graduated from US medical schools. The use of an older directory allowed for a minimum number of years of professional experience in Canada. A similar-sized group (533) of graduates of Canadian medical schools now practicing in the United States was gathered by identifying the first Canadian medical school graduate on every fifth page of the 1988 American Medical Association Directory. (There are about 17 times more Canadian-graduated US physicians than US-graduated Canadian physicians; each group represents roughly 1% of its respective work force.) Addresses for both groups were then updated, using the 1990 directories for both countries. We sought to identify physicians who had had direct professional experience in both the United States and Canada, without a requirement as to original country of residence. The respondents thus included individuals with a variety of backgrounds and included both Canadian and US citizens who attended medical school outside their own country, some of whom stayed on to receive further medical training or to practice medicine before returning to their own country.

Questionnaires were mailed to 813 physicians so identified for whom current addresses were available. Questionnaires proved deliverable to 702 physicians (355 Canadian and 347 US) and 414 were returned, 232 (65%) from Canadian physicians and 182 (54%) from US physicians (overall response rate, 59%).

Results

Of the 414 respondents, 256 (62%) obtained additional professional training (internships, residencies, and/or fellowships) in the same country as their medical school. Further, 147 respondents (36%)

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This paper was accepted April 29, 1993.
practiced medicine in both countries after medical training, averaging 10.43 years of experience in the Canadian system and 10.98 years in the US system. We will refer to this group as “dual experience” physicians.

Men made up 76% of the sample and women 20% (4% did not report their sex). The respondents were predominantly (88%) White. Five percent were Black, Asian, or Hispanic (7% did not report their race/ethnicity). Age was reported in 10-year increments. The predominant age group was 40 through 49 years of age, especially in the Canadian sample, where 49% of all respondents fell into this age group.

Respondents were divided into two groups. “Primary care providers” included those practicing in nonsurgical areas of medicine that traditionally provide primary care services the majority of the time: general practice, family practice, pediatrics, and internal medicine (including geriatric medicine). All others were classified as “non-primary care specialists.” The sample consisted of 166 (40%) primary care physicians and 234 (57%) non-primary care specialists (3% did not report their field of practice).

The questionnaire focused on global measures of satisfaction with the respondents’ professional experience in each country. Respondents were asked: Overall, how would you rate your level of satisfaction with your experience as a practicing physician? As a practicing physician, how satisfied are you with the financial compensation for your work? As a practicing physician, how satisfied are you with the quality of medicine you have been able to practice? Separate answers were given for each system. Additional questions addressed the impact of cost containment measures and asked each physician to compare the two systems directly, using a single overall rating. For dual-experience physicians, an additional question asked for the reasons they had left their first country of practice. Respondents were invited to expand on their responses with additional narrative.

The 147 dual-experience physicians were of greatest interest; except where noted, all results were drawn from this group, which consisted of 75 Canadian physicians and 72 US physicians. Table 1 summarizes the reasons members of this group left their first country of practice; Table 2 compares the answers of the Canadian and US dual-experience physicians to the global satisfaction questions.

Physicians who had left Canada were significantly more likely than their US counterparts to express dissatisfaction with the health care system as a reason for leaving (P < .05; financial compensation, P < .001). Nearly half (48%) of those who had left the United States did so for strictly personal reasons unrelated to their experience with the US health care system (most commonly employment opportunities).

Physicians’ expressions of satisfaction with their professional experience in their current country were significantly better than ratings of that country by physicians who had left (P < .05), with the exception of Canadian physicians’ expressions of satisfaction with the financial rewards of both systems, which were essentially equal. Further dividing the Table 2 sample into those expressing dissatisfaction with the health care system and those giving only personal reasons (unrelated to the health care system) for switching countries showed that those with strictly personal reasons rated their initial country more highly than those expressing dissatisfaction.

Specialists in both countries indicated levels of satisfaction equal to or
higher than those of primary care physicians. US physicians, both primary care physicians and specialists, were more satisfied with their earning ability in the United States than with their previous earning ability in Canada. Canadian specialists were more satisfied with levels of compensation in the United States than in Canada, but to a lesser degree than their US counterparts, whereas Canadian primary care physicians expressed essentially equal satisfaction with their income in both countries.

Regarding the effect of cost containment measures on their ability to practice, both Canadian and US physicians indicated only a slight to moderately negative impact. There was no statistically significant difference between the two groups, except that Canadian specialists viewed US efforts at cost containment more negatively than did US specialists ($P < .05$).

Juxtaposed against the preceding data, the answers to the question “How would you rate the Canadian and US health systems in comparison to each other?” were unexpected. Each group again favored its current country, with the exception that US physicians who had left Canada for strictly personal reasons rated the Canadian system slightly better. The strength of response, however, was significantly different. For this question, responses on a 7-point scale (1 = US system better, 7 = Canadian system better) were subtracted from the question’s neutral rating of 4. The absolute net value of this calculation is seen in Figure 1, which demonstrates, in an overall sense, the strength of dual-experience physicians’ rating of their current country over their previous one: Canadian physicians’ rating of their own system was three times greater in strength than US physicians’ rating of the US system ($P < .01$). Among all respondents, the Canadian physicians’ rating of their current system was more than four times greater in strength than the US physicians’ rating of the US system ($P < .01$).

It is useful to further divide the dual-experience group based on the time period in which practice experience occurred: those who, at least in part, practiced in both countries between 1970 and 1980 ($n = 112$) and those whose practice experience in both countries included years after 1980 ($n = 99$). The first group had the opportunity to experience the US Medicare and Medicaid programs begun in the mid-1960s as well as Canada’s shift to its provincially based system, which was complete by 1972. (Most governmental programs for hospital coverage in Canada began in the late 1950s and were in place by the mid-1960s in all provinces; most governmental outpatient programs began in the mid-1960s and were in place in all provinces by 1972.) The second group had the chance to experience the more recent strains on the Canadian system as well as the institution of diagnosis-related groups in the United States.

When results from these subgroups were compared with those of the entire dual-experience group, only two important differences were seen. Among US physicians who left Canada sometime after 1970, mean values for overall satisfaction with the Canadian system as well as for quality of care and financial compensation in that system were somewhat lower than values in the entire group of US dual-experience physicians. In the subgroup of US physicians who had left Canada after 1980, a similar drop in mean values was seen regarding the level of compensation in Canada. All other fluctuations in mean values were minimal. Overall, the differences shown in Figure 1 were not substantially altered when we focused on physicians with more up-to-date experience in both systems.

**Comment**

As an important information source, physicians who have had direct professional experience in both Canada and the United States have been underutilized. These individuals have been “in the trenches” on both sides of the border and have seen how each system works on a day-to-day basis. Their input is a valuable addition to more theoretical analyses. In identifying every US-graduated Canadian physician and a similar-sized sample of Canadian-graduated US physicians, we sought to harness the real-life perspective of these unique groups.

These groups may not be representative of all Canadian or US physicians. In addition, the respondents were self-selected and may not be the same as nonrespondents. An analysis of respondents to the first and second mailings provides some information on this issue, since initial nonrespondents became part of the second group of respondents. We used simple $t$ tests to compare all measures for these two groups. Only one of 16 comparisons was significant; this was approximately the number of differences expected on the basis of chance alone at $P = .05$. Respondents to the first mailing rated the US system significantly more highly than did second-mailing respondents. If such a difference is real, subsequent mailings to nonrespondents would
only be expected to strengthen the results we obtained. Thus there is little reason, based on the data themselves, to suspect that if more opinions from nonrespondents were included, different conclusions would be reached.

The evolution of Canada’s single-payer system was associated with protests from physician groups who feared governmental involvement. Those less enamored of the radical changes occurring in Canadian health care may have been more likely to leave when the opportunity arose. Thus, on the one hand, we expected the results summarized in Table 1: physicians who chose to leave Canada more commonly expressed dissatisfaction with the system as a reason for leaving than did their counterparts who left the United States. Yet levels of satisfaction with their current country were essentially equal: Canadian physicians were generally as satisfied with their professional experience as were US physicians, and they were reasonably satisfied with their financial rewards (Table 2). Further, notwithstanding the knowledge that their income would be greater in the United States, Canadian specialists in our sample expressed relative contentment with their practices as measured by levels of overall satisfaction and satisfaction with the quality of medicine they are able to practice. In both cases these indicators were equivalent to those of US specialists.

The most unexpected result was the relatively weak rating of the US system by US dual-experience physicians (Figure 1). We had expected a stronger rating of the US system by these US physicians as compared with the rating of the Canadian system by Canadian physicians, both because dissatisfaction with the health care system was more commonly expressed by physicians leaving Canada for the United States and because financial remuneration in the United States is greater. In this survey, the opposite proved the case. This result is not clearly explained by the global measures of satisfaction previously described, but it is partly accounted for by the fact that among physicians who moved from one country to the other for strictly personal reasons, current US physicians rated Canada slightly better while Canadian physicians strongly favored Canada. Although both US and Canadian physicians were reasonably and equally satisfied with their current practices, a compilation of solicited comments from the current survey offers some potential clues to explain the results summarized in Figure 1.

Three issues were most often raised in the respondents’ comments: access to care, administrative responsibilities, and medical malpractice. These issues were consistent with previously acknowledged strong points within the Canadian system.23 The need for better access to care in the United States, a widely discussed issue in the current literature,18,19 was by far the most common concern expressed. It appeared that once physicians had experienced the positive effects of universal access (in Canada), it was difficult to accept their absence (in the United States). Universal access was seen as a major benefit not only to the patient but to the practitioner, who no longer needed to worry about the patient’s ability to pay in determining a course of action.

The inefficient paperwork jungle common to US health care20,21 was contrasted with the simplified administrative tasks of the Canadian system. Although the comments indicated that administrative requirements were increasing in Canada, Canada’s provincially run, single-payer system remained extraordinarily simple compared with the US system. Although respondents were often concerned with the administrative overload in the United States, there was essentially no call for a single-payer system. Rather, the overall sentiment was in favor of maintaining a public-private insurance structure but with sufficient changes to decrease the administrative burden.

Medical malpractice was seen as a serious issue in both countries. The number of lawsuits has increased in both Canada and the United States. Canadian physicians expressed concern with the trend. Yet for dual-experience physicians the problems with medical malpractice in Canada paled in comparison with those in the United States. Even today, “Canadian physicians are only one fifth as likely to be sued for malpractice as their American counterparts.”22

Nevertheless, it should be emphasized that physicians who left Canada were clearly more satisfied with their practices in the United States than in Canada. Their responses should not be construed as a call for the “Canadianization” of the US health care system. Rather, the message was that the United States should seek to learn from the successes of others. Instead of being the experimenter, the US system can take what has worked elsewhere and combine it with its own many strengths. Examples of how this might be done may come from Canada, from other countries,23–25 or from within our own country.26,27

The weak rating of the US system by US dual-experience physicians can reasonably be interpreted as a call for a more careful analysis and probable reform of at least certain aspects of the US system, including issues of access, administrative burdens, and malpractice costs. The data gathered in this study, especially considering the generally conservative nature of physicians as a group, emphasize the need for change in the way health care is provided in the United States.

Acknowledgment
This paper was presented in part at the annual meeting of the American Public Health Association, Atlanta, Ga, November 10–14, 1991.

References
16. Kirkpatrick D. Practicing medicine above
Part 3

Single-payer national health insurance is the solution

Talking point 9:
Medical malpractice systems can be harnessed to ensure better quality and lower costs through single payer.


Medical Malpractice, Health Care Quality And Health Care Reform

The discussion below is based on a presentation by Gordon Schiff, MD on May 20, 2003

Notes and reflections by Oliver Fein, MD, Chair, NY Metro Chapter, PNHP

A crisis in medical malpractice is much in the news these days. The premiums that physicians pay for their malpractice insurance have been escalating in many parts of the country. What are the causes of this crisis, and how does it relate to health care reform?

The most important goals of a medical malpractice system are (1) to reduce preventable medical injury; and (2) to provide fair and timely compensation to injured persons. But several studies (Brennan TA, N Engl J Med 1991; 324:370) show:

• 98% of patients who have been negligently harmed receive no compensation.
• 83% of physicians who are sued for malpractice have not acted negligently.

Conclusion: Our present malpractice system is not working, either for patients or physicians.

There is no consensus on the cause of the malpractice crisis or its cure: The AMA feels the causes are: (1) increased frivolous law suits, (2) excessively high monetary settlements and jury awards, (3) greedy trial lawyers, and (4) irrationally angry patients. The AMA’s solution is to cap the non-economic component of awards, given for pain and suffering, at $250,000.

Limits on awards are not the solution. Numerous studies show that excessive awards are not the cause of the problem:

• Only two states with caps have experienced flat or declining premiums; 19 states that have implemented these limits have seen premium increases from 1991 to 2002 averaging 48.2%; 32 states without caps saw premium increases of only 35.9% over the same period (Weiss Ratings, Inc. in Crain’s Health Pulse, June 9, 2003).

• In New Jersey, where doctors and insurers have been vociferous in blaming rising malpractice premiums on skyrocketing payouts, data on settlements, awards, and other payout for 2001-2003 shows that “the total payout declined [by 24%] even as doctors saw steep increases in their malpractice premiums.” (Newark Star-Ledger, June 9, 2004)

• In Texas, where caps on non-economic damages have just been passed, one of the nation’s largest medical-malpractice insurance companies told regulators they would save only 1% in total payouts. (Wall Street Journal, October 28, 2004)
• New York has more malpractice awards than any other state, but the number of such awards has remained about the same during the last decade, both in New York and nationwide. The data shows steady increases in the size of malpractice awards over this period, but these rose no faster than the overall cost of medical care. (Perez-Pena R, NY Times, May 21, 2003)

A more comprehensive approach is necessary. It should recognize that (1) malpractice premiums are rising because insurance companies lost investment income in the recession, not because of extravagant awards; (2) increased use of technology in medicine contributes to the higher incidence of adverse events; and (3) negligence may reflect system failures as a result of the way medical care is organized and paid for. As an example, for-profit HMOs force doctors to see more patients per hour and provide them with financial incentives to withhold care, contributing to growing distrust in the doctor-patient relationship.

Some facts are not disputed:

• The cost of malpractice premiums is less than 1% of total national health expenditures. In 2000, the average premium was $18,400 per doctor per year, but this varies by state and specialty — some (over)

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obstetricians and neurosurgeons pay over $100,000/year. (AMA, Trends in the Physician Market, 2003)

- The total cost of “defensive medicine,” i.e., unnecessary care provided solely to look good in case of a malpractice claim, is about 2% of national health expenditures. (Bodheimer TS, Grumbach K, Understanding Health Policy, Lange Medical Books, 2002)

PNHP has not adopted a formal position on malpractice reform. However, we must not advocate taking away patients’ legal rights, particularly when these are perceived as the only way to hold doctors, hospitals, HMOs, and other providers accountable for medical errors and negligence. We must focus our fight on equitable access to quality health care for all — that is, on a single payer national health insurance (NHI) program, recognizing that such a program promises to significantly reduce the malpractice problem:

1. Single payer NHI will reduce malpractice costs, because the costs of any medical care needed as a result of an injury will be covered within the NHI system.

2. Single payer NHI will foster a single data system, which has the potential to improve patient safety by enabling the disclosure and tracking of systems problems and thereby reducing medical errors.

3. Single payer NHI will eliminate financial barriers to access as well as any incentives for providers to avoid seeing complicated and sick patients or to withhold care. This will lead to increased trust between doctor and patient.

4. Options other than caps on non-economic damages must be explored including: (a) use of practice guidelines to help reduce negligence; (b) alternative dispute resolution mechanisms such as mediation and arbitration; (c) no-fault reform, providing compensation to patients whether or not the injury is due to negligence; (d) enterprise liability making institutions such as hospitals, large group practices, and HMOs responsible for compensating medical injuries, thereby creating incentives for institutions to improve the quality of care offered in their institution.

PNHP’S VISION

| Fair — all contribute/all benefit |
|------------------|------------------|
| Generous         | Mean spirit/arbitrary |
| Frugal           | Wasteful          |
| Inclusive         | Exclusionary      |
| especially the sick | avoid the sick |
| Choice/autonomy | Restrictions |
| Access | Rules |
| Trust | Unregulated |
| Accountability | Flexibility |
| Commitment | Short-term profitability |
| Longer time horizons | Trade secrets |
| Public/open/sharing | Commercial (near criminal) values |

PNHP-NY Metro Forum Report

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There are, then, two contrasting approaches to the health care system, and these lead to very different views of and approaches to the malpractice problem:

While each of these dichotomized one-word sound-bite-concepts simplifies complex issues and debates, analysts of the U.S. health system and advocates for reform are converging in a critique of those people and ideas on the right. Malpractice — both poor care and a climate generating lawsuits — is only exacerbated by market approaches to the provision of care, and they can only be fundamentally addressed by non-market professional values and approaches.

Conclusions:

1. The medical malpractice crisis is real: High premiums are driving doctors to retire early, move to states with lower premiums, and limit procedures they perform. This limits patients’ access to health care.

2. The solution must be comprehensive reform, not caps on non-economic damages. PNHP supports increasing patients’ access to health care rather than taking away patients’ legal rights.

3. Single payer NHI will go a long way toward solving the malpractice crisis by removing the cost of medical care from malpractice settlements, enhancing “systems approaches” to improving patient safety, and improving trust between doctor and patient.
The growing threat of a lawsuit is a handy explanation for a range of physician behaviours, including defensive medicine through excessive test ordering and avoiding certain areas of practice, types of patients, or forms of collaboration.

Healthcare professionals and the public perceive that malpractice claims in Canada are increasing dramatically. Their perception is that doctors are making more mistakes and/or that citizens are much more likely to sue than they were in the past. Ironically, this perception may be in part due to a new culture of openness and patient safety in healthcare — hospitals now go public about systemic errors, such as in 2004 when two Calgary patients died after being given potassium chloride rather than sodium chloride.¹

When the Canadian Health Services Research Foundation first looked at the data in 2004, we saw that malpractice claims against doctors had actually been dropping steadily for some time. A new look at the data confirms that doctors are in fact much less likely to get sued than in the past.

The tale of the tape

In Canada, most doctors receive malpractice protection from the Canadian Medical Protective Association, which tracks the number of legal actions launched and the amounts paid out to successful cases. The numbers are startling.

In the 1990s, the association found an increase in the number of malpractice lawsuits, peaking in 1996 when 1,415 lawsuits were filed, leading both doctors and lawyers to sound the alarm. However, the numbers have dropped steadily since 1996, to 1,083 in 2004, a 23-percent decrease.² Moreover, an increasing proportion of lawsuits that go to trial have judgments in favour of doctors — 82 percent in 2004, up from 73 percent in 1994.³

It’s also worth noting that patients are making fewer complaints about doctors to regulatory bodies. In the province of Saskatchewan for example, the College of Physicians and Surgeons received 150 formal complaints in 2004, compared to a high of 207 in 2000, even though the number of physicians in the province remained steady.⁴ Part of this shift can be attributed to the college’s increasing use of alternative, informal interventions that address patient concerns more quickly than the formal system.⁵

People might think the number of lawsuits is going up because the amounts awarded in court decisions and settlements continue to increase. In 1995, the protective association paid an average of $181,281 per case for lawsuits that were successful or were filed in 2005.⁶
settled out of court. Payments peaked in 2001, when the average was $371,300 (mostly due to a single large class-action suit). For 2004, the last year for which data are available, the association paid an average $300,692 per case — a 66-percent increase over 1995.\textsuperscript{ii}

The United States is the country most often thought of as the “land of litigation.” Even there, though, the numbers aren’t skyrocketing as much as people think. The National Practitioner Data Bank reports that from 1992 to 2004, the number of successful malpractice suits against physicians went from 14,826 to 14,396 — a three-percent decrease. As in Canada, however, the average amounts paid out have increased, from $214,332 in 1997 to $298,460 in 2004 — a 39-percent increase.\textsuperscript{vi}

Paying the price

While the number of lawsuits against Canadian doctors is not increasing, the cost of malpractice protection is growing with the size of settlements. The Canadian Medical Protective Association’s fees for 2006 range from $564 a year for missionary, charitable, teaching, and research work abroad to $78,120 for obstetricians working in Ontario.\textsuperscript{vii} (The association charges its fees based on both type and location of practice, with Ontario doctors generally paying the highest fees, Quebec doctors the lowest.) This represents an increase of about 12 percent over the last three and four years, respectively. However, in many provinces doctors are substantially insulated from these increases, as they are partially covered by government in their collective agreements.\textsuperscript{viii-xi}

American trends are harder to track, because of the large number of private insurers offering malpractice protection there. However, fee hikes have been noted, particularly in the states of New York, Texas, and Florida, which saw fees increase 30 to 50 percent from 2001 to 2002. Many high-risk specialists like obstetricians and neurosurgeons now pay annual fees of more than $100,000US, which is leading some of these doctors to leave their practices.\textsuperscript{xii}

People probably believe lawsuits are on the rise because of isolated media reports about high-profile, high-cost cases. And while the data show the number of claims is a shrinking problem, even one multi-million dollar case could be enough to skew not only our perception of the problem, but the dollar figures as well.

\textbf{Average payments by CMPA*}

![Average payments by CMPA](image)

* While the average amount awarded in 2001 is the largest ever, it was strongly affected by a single class-action lawsuit. This class-action suit accounted for 86 percent of the increase over 2000. The average is found by dividing the total amount paid by the CMPA by the number of lawsuits that were successful for the patient plus the number of cases settled out of court. Canadian Medical Protective Association 2002 Annual Report.

\textbf{References}


Myths and facts

Myth 1:

Alternative proposals for reform, such as the Affordable Care Act and incremental state-level approaches, can achieve affordable, universal coverage.

Fact: The Affordable Care Act (“Obamacare”) will leave 30 million uninsured in 2023; will retain our fragmented financing system, making it impossible to control costs; and will not eliminate medical bankruptcy.

Fact: Single payer is the only reform that will simultaneously grant universal coverage while controlling costs.


Fact: State health reforms over the past two decades have failed to reduce the number of uninsured.

The Affordable Care Act (ACA) proposed expanding health insurance coverage by: (1) requiring states to offer Medicaid to people with incomes up to 138 percent (133 percent plus a 5 percent income disregard) of the federal poverty level (FPL), with most of this expansion funded federally; and (2) offering subsidies to help those with incomes up to 400 percent FPL purchase private insurance through newly created insurance exchanges. The Congressional Budget Office (CBO) estimated in March 2012 that the ACA would newly insure 30-33 million people, leaving 26-27 million uninsured in 2016.

In June 2012, however, the Supreme Court ruled that states may opt-out of Medicaid expansion. Since then, the governors of 14 states have announced their intention to opt-out, 6 are undecided, 3 are leaning against, and 2 toward the expansion. Opt-outs will likely leave several million more uninsured, but little is known about who is likely to remain uninsured under the ACA.

To estimate the number and characteristics of U.S. residents who will remain uninsured in 2016, we analyzed data from the Census Bureau’s 2012 Current Population Survey, a nationally representative survey of the non-institutionalized U.S. population.

Methods

We first categorized states as undeclared, opting in (or leaning toward opting in), or opting out (or leaning toward opting out) of Medicaid expansion. We then examined the projected demographic characteristics of the uninsured population under two scenarios: (1) that all undecided states opt-in and (2) that all undecided states opt-out.

Our projections assume that in opt-out states, 90 percent of currently uninsured people with incomes below 138 percent FPL will remain uninsured, along with 75 percent of uninsured people with incomes above 138 percent FPL. For opt-in states we assume that 40 percent of currently uninsured people with incomes less than 138 percent FPL will remain uninsured, along with 60 percent of uninsured people with incomes above 138 percent FPL. These assumptions are consistent with published take-up rates for public programs, prior publications, and CBO estimates regarding ACA implementation.

Results

We found that if all currently undecided states opt-in, 29.8 million people will remain uninsured, whereas if all opt-out, the number of uninsured will total 31.0 million, 1.2 million above the opt-in scenario.

Exhibit 1 displays the current number of uninsured in each state and the number who will likely remain uninsured under opt-in and opt-out. For states that are opting out, this choice will lead to a decrease in the number of uninsured of only approximately 17 percent, rather than the approximately 50 percent decrease had they opted in.

Exhibit 2 shows the demographic characteristics of the uninsured currently and post-ACA under our best and worst case scenarios. Overall, the ACA will minimally alter the demographic composition of the uninsured, regardless of whether undecided states opt-in or out. While Blacks and Hispanics will continue to be overrepresented among the uninsured, the majority will be non-Hispanic, white, low-income, working-age adults, many of them employed. The majority (around 80 percent) of the uninsured will be U.S. citizens, irrespective of states’ acceptance of Medicaid expansion. More than 4.3 million children and nearly 1.0 million veterans will remain uninsured under either scenario.

Implications

The Supreme Court’s decision to allow states to opt-out of Medicaid expansion weakens the ACA’s impact. Because the ACA also reduces funding to safety-net hospitals, states’ refusal to expand Medicaid will likely result in both medical and financial hardship for vulnerable Americans.

Our finding that, following the ACA, only 20 percent of the uninsured will be noncitizens (some of whom reside here legally) runs counter to the common perception that the ACA will cover virtually all legal residents. The ACA will leave tens of millions uncovered. It will do little to alter racial disparities in coverage. It will also perpetuate disparities in access based on state of residence. The ACA, whatever its merits, will fall well short of its stated goal of providing affordable care for all Americans.
<table>
<thead>
<tr>
<th>State</th>
<th>Pre-ACA uninsured (thousands)</th>
<th>Post-ACA uninsured (thousands)</th>
<th>Post-ACA opt-out (thousands)</th>
<th>Post-ACA opt-in (thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pre-ACA adoption</strong></td>
<td>% of uninsured (millions)</td>
<td>% of uninsured (millions)</td>
<td>% of uninsured (millions)</td>
<td>Age 0-17</td>
</tr>
<tr>
<td><strong>Race</strong></td>
<td>Male</td>
<td>52.6 (25.6)</td>
<td>52.5 (16.3)</td>
<td>52.7 (15.7)</td>
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<td><strong>Ethnicity</strong></td>
<td>Hispanic</td>
<td>32.5 (15.8)</td>
<td>31.5 (9.8)</td>
<td>32.1 (9.6)</td>
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<tr>
<td><strong>Veterans</strong></td>
<td>Yes</td>
<td>3.4 (1.4)</td>
<td>3.5 (0.9)</td>
<td>3.5 (0.9)</td>
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<tr>
<td><strong>Nativity Status</strong></td>
<td>US Born</td>
<td>72.8 (35.4)</td>
<td>73.7 (22.8)</td>
<td>73.4 (21.9)</td>
</tr>
<tr>
<td><strong>Income</strong></td>
<td>&lt;100 FPL</td>
<td>28.9 (14.0)</td>
<td>27.5 (8.5)</td>
<td>28.6 (8.0)</td>
</tr>
<tr>
<td><strong>Employment Status</strong></td>
<td>Not in labor force</td>
<td>30.3 (13.1)</td>
<td>30.3 (7.9)</td>
<td>30.3 (7.4)</td>
</tr>
<tr>
<td><strong>Total (millions)</strong></td>
<td>100 (48.6)</td>
<td>100 (31.0)</td>
<td>100 (29.8)</td>
<td>128</td>
</tr>
</tbody>
</table>
Life or Debt: Underinsurance in America

Steffie Woolhandler, MD, MPH and David U. Himmelstein, MD

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Life or debt. Millions of our patients face that choice, including many with insurance.

Health reform has focused on America’s 50 million uninsured. But the predicament of the underinsured is also dire, and they will find less solace in the Affordable Care Act (ACA).

In this issue of JGIM, Magge et al. cast welcome light on the plight of insured, low-income (0–125% of poverty) families. More than a third of them met criteria for “underinsurance”; 31.5% devoted more than 5% of their meager incomes to medical expenses, while many skipped or delayed needed care or medications because of costs.

Not surprisingly, Medicaid enrollees fared somewhat better than those with private coverage. Medicaid has generally been more comprehensive than private insurance, with minimal cost-sharing. However, Medicaid’s low fees have caused many physicians and hospitals to shun Medicaid, compromising enrollees’ ability to get appointments—a problem that wouldn’t show up in Magge’s analysis.

While among low-income insured individuals whites were at higher risk of underinsurance, a much higher share of all Blacks and Hispanics are uninsured or low-income. Hence, the low-income uninsured and underinsured account for a larger proportion of the total Black and Hispanic populations.

Magge’s research extends previous findings indicating a steady erosion of the financial protection offered by health insurance. Farley’s analysis of the 1977 National Medical Expenditure Survey (NMES) found that 12.6% of individuals with private coverage had a 1% annual probability of incurring out-of-pocket medical expenses exceeding 10% of family income (one of several alternative definitions of underinsurance that she explored). Using this same definition, underinsurance had increased to 29 million persons, 18.5% of those with private coverage by 1994.

The NMES’ successor—the Medical Expenditure Panel Survey (MEPS)—has not released the insurance benefit schedules needed to replicate Farley’s definition. But more recent studies indicate that the ranks of the underinsured continue to grow.

Between 1996 and 2003, among individuals with employer-based coverage, the share with health expenditures (including premiums) exceeding 10% of family income increased from 14.2% to 18.2%. The burden was especially heavy on the poor (among whom 33.3% spent >10% of income); on those in fair or poor health (32.3%); and on those with chronic conditions such as diabetes (39.1%), hypertension (30.9%) or a mental disorder (29.2%).

Using an alternative definition—inflation-adjusted out-of-pocket spending > $5,000 (excluding premiums)—underinsurance among households headed by a working-age adult with full-year coverage increased from 2.6% to 4.5% between 1999 and 2006. Among households that included someone with a hospitalization, underinsurance rose from 7.2% to 11.6%.

A series of surveys of non-elderly adults by the Commonwealth Fund estimated underinsurance at 9% in 2003, increasing to 16% in 2010; the proportion spending >10% of income on out-of-pocket costs and premiums rose from 21% in 2001 to 32% in 2010.

Striking evidence of widespread underinsurance also comes from the bankruptcy courts. Nearly 1.2 million families seek bankruptcy protection annually; medical bills or illness contributed to 62% of filings in 2007—a 49.6% increase since 2001. Sixty percent of the medically bankrupt had private coverage at the onset of the bankrupting illness; only 22% were uninsured.

Several studies have shown that skimpy insurance menaces more than just financial health. In the Rand Health Insurance Experiment, the only randomized trial of cost sharing, high deductibles didn’t harm affluent, healthy patients, but increased the risk of dying by 21% among lower income, sicker participants. That study almost certainly understates the hazard of underinsurance, because it excluded the poorest and sickest individuals (i.e. those most likely to be harmed). Moreover, it predated widespread adoption of several life-prolonging therapies such as beta-blockers, ACE inhibitors, and statins, whose use is decreased by copayments.

In a large national survey in 2007, 29% of individuals with high-deductible plans vs. 16% with low deductibles reported delaying or avoiding care due to cost.
ingly, in a study of patients hospitalized with acute myocardial infarction, underinsurance predicted pre-hospital delays (OR 1.21 compared to the well-insured). 16

Many hope that the ACA will fix both uninsurance and underinsurance. Once fully implemented, it will expand coverage by about 26 million, eliminate lifetime benefit caps which have ensnared a few thousand families annually, and ban pre-existing condition exclusions.

But, paradoxically, the ACA may actually increase the number of underinsured. About 40 % of those gaining coverage will get Medicaid. As Magge shows, many current Medicaid enrollees are woefully underinsured. Moreover, CMS looks set to allow state Medicaid programs to demand copayments and deductibles, even from the poorest of the poor. Several states have already reduced benefits, cut provider payments, and narrowed provider networks. 11 Hence, underinsurance among Medicaid recipients will probably increase. More ominously, the White House is encouraging state officials to use federal Medicaid expansion funds to purchase private insurance, 12 a shift likely to raise both taxpayers’ costs and poor patients’ copayments.

The new private coverage offered to near-poor and middle income individuals through insurance exchanges will also leave many underinsured. Bronze plans—the minimum coverage mandated by the ACA—will cover only 60 % of average medical expenses; silver plans will cover 70 %. That’s far worse than the roughly 80 % coverage under today’s average job-based policy—equivalent to the ACA’s Gold plans. (A complex system of sliding-scale discounts on copays and deductibles available to some of those with incomes 130–250 % of poverty will offset some, but not all, of the near-poor’s cost-sharing.)

In concrete terms, a 56-year-old making $45,900 (399 % of poverty, and hence eligible for premium subsidies) will pay an estimated $4,361 in premiums for individual Bronze coverage, and up to $4,167 in additional deductibles and copayments for covered services. 13 At 401 % of poverty ($46,100) subsidies disappear; the mandatory premium would be $10,585, with out-of-pocket costs for covered services capped at $6,250. In effect, the federal government has lent its imprimatur to skimpy plans (long-promoted by private insurers) that offer scant protection from pauperization.

Little wonder that expanded coverage under the Massachusetts reform (where Medicaid has remained comprehensive, and the Bronze plans’ actuarial value is 70 % vs. the ACA’s 60 %) yielded no reduction in medical bankruptcies. 14

Unfortunately, both Massachusetts and the ACA eschewed the social insurance approach which makes care free at the time of use, puts the burden of health costs on those most able to pay—the healthy and wealthy—and relies on readily enforced global budgets for cost control. Instead, they embraced market-based policies that demand far more (percentage wise) from the middle class than the rich, and compound the misfortune of illness with financial penalties. Such policies conflated patients seeking care with price-sensitive consumers whose voracious appetites for excessive services must be curbed.

International evidence indicates that cost-sharing is neither necessary nor particularly effective for cost control; the U.S. has high cost-sharing and the highest costs. Canada, which outlawed copayments and deductibles in 1981, has seen both faster health improvement and slower cost growth. 15 Canadian provinces control costs by tax-based funding; global hospital budgeting; binding, negotiated physician fee schedules; and a simple unified single-payer structure that minimizes administrative burdens and costs. Scotland, which has eschewed market-based policies and patient payments—even going so far as to abolish parking fees—has costs about half those in the U.S. Scots view patients as owners of their health care system, not its customers.

Magge’s sobering data remind us that wish-it-would-work health reforms such as the ACA won’t end the unnecessary suffering that fragmented, market-oriented health financing inflicts on patients. Only thoroughgoing, evidence-based reform will do that.

**REFERENCES**

OBSERVATIONS: U.S. HEALTH REFORM

Obama’s reform: no cure for what ails us

By David U. Himmelstein and Steffie Woolhandler

As the applause fades for President Obama’s health reform, David Himmelstein and Steffie Woolhandler fear that the new law will simply pump funds into a dysfunctional, market driven system.

It was a stirring scene: President Obama signing the new health reform law before a cheering crowd, and a beaming vice president whispering in his ear, ‘This is a big fucking deal.’ As doctors who have labored for universal health care we’d like to join the celebration, but we can’t. Morphine has been dispensed for the treatment of cancer – the reform may offer a bit of temporary relief, but it is certainly no cure.

The new law will pump additional funds into the currently dysfunctional, market driven system, pushing up health costs that are already twice those in most other wealthy nations. The Medicaid public insurance program for poor people will expand to cover an additional 16 million poor Americans, while a similar number of uninsured people with higher incomes will be forced to buy private policies. For the ‘near poor’ the government will pay part of these private premiums, channeling $447 billion in taxpayer funds to private insurers over the next decade.

Unfortunately, private insurers win in the marketplace not through efficiency or quality but by maximizing revenues from premiums while minimizing outlays. They pursue this goal by avoiding the sick and forcing doctors and patients to navigate a byzantine payment bureaucracy that currently consumes 31 percent of total health spending. The health reform bill’s requirement that uninsured people buy insurers’ defective products will fortify these firms financially and politically.

Meanwhile insurers will exploit loopholes to dodge the law’s restrictions on their misbehaviors. For instance, the limit on administrative overheads will predictably elicit accounting gimmickry, for example by relabeling some insurance personnel as ‘clinical care managers.’ While insurers are prohibited from ‘cherry picking’ – selectively enrolling healthy, profitable patients – they’ve circumvented similar prohibitions in the Medicare health maintenance organizations (HMOs). The ban on revoking policies after an individual falls ill similarly replicates existing but ineffective state bans.

Sadly, even if the reform works as planned, 23 million people will remain uninsured in 2019. Meanwhile the public and other safety net hospitals that uninsured people rely on will have to endure a $36 billion cut in federal government funding.

Moreover, many Americans will be left with coverage so skimpy that a serious illness could lead to financial ruin. At present, illness and medical bills contribute to 62 percent of all bankruptcies, with three-quarters of the medically bankrupt being insured. The reform does little to upgrade this inadequate coverage; it mandates that private policies need cover only 70 percent of expected medical costs. The president has often promised that ‘if you like your current coverage you can keep it.’ Yet Americans who now get job based insurance will be required to keep it – whether they like it or not. And many who receive full coverage from an employer will face a steep tax on their health benefits from 2018.

Soaring costs and rising financial strains seem inevitable, despite claims that the reform will ‘bend the cost curve.’ Computer vendors have trumpeted imminent cost savings for half a century (see, for instance, a video made by IBM in the 1960s, available at http://bit.ly/cckdtB). Prevention, though laudable, does not generally reduce costs. Windfalls from prosecuting fraud and abuse have been promised before. The new Medicare advisory board merely
tweaks an existing panel. Without an enforcement mechanism, stepping up comparative effectiveness research cannot overcome drug and equipment makers’ promotion of profligate care. Existing insurance exchanges where patients can compare and shop among private plans haven’t slowed growth in costs for public workers nationally or in California. And the mandated experiments with capitated payment systems are warmed-over versions of President Nixon’s pro-HMO policies and subsequent failed initiatives to fix America’s health cost crisis through managed care.

Experience with reforms in Massachusetts in 2006 – the template for the national bill – is instructive. Our state’s costs, already the highest of any state, grew by 15 percent in the first two years after reform, twice the national rate. Moreover, capitated physician groups had costs at least as high as those who were paid on a fee for service basis. Meanwhile, after initial improvements in the state, access to care has begun to deteriorate, and the state has begun to cut back coverage.

Overall, President Obama’s is a conservative bill, drafted in close consultation with the drug and insurance industries. Its modest salutary provisions – such as an extra $1 billion a year for community health centers and the expansion of Medicaid – mirror measures that have been passed even under Republican regimes. Its central tenet, that the government should force citizens to buy coverage from a for-profit firm, was first proposed by Richard Nixon when faced with the seeming inevitability of national health insurance in 1972. Similarly, Mitt Romney, a favorite of conservatives, embraced the Nixon approach as Massachusetts governor in 2006, a stance he has now abandoned. Democrats, having retreated from their traditional push for national health insurance, freed Republicans to move still further to the right.

Throughout the reform debate we, and the 17 000 others who’ve joined Physicians for a National Health Program, advocated for a far more thoroughgoing reform: a non-profit, single payer national health insurance program. We will continue to do so. Our health care system has not been cured or even stabilized. For now, we will continue to practice under a financing system that obstructs good patient care and squanders vast resources on profit and bureaucracy.

Passage of the health reform law was a major political event. But for most doctors and patients it’s no ‘big fucking deal.’

David U. Himmelstein, M.D., is associate professor of medicine at Harvard Medical School and Steffie Woolhandler, M.D., M.P.H., is professor of medicine at Harvard Medical School. They are also co-founders of Physicians for a National Health Program.
THE AMERICAN PROSPECT

Health Reform You Shouldn't Believe In

What the Massachusetts experiment teaches us about incremental efforts to increase coverage by expanding private insurance.

Marcia Angell | April 21, 2008

For all their promise of change, Democrats are remarkably timid about changing the health-care system. The system now costs twice as much per person as those of other advanced countries and delivers worse average outcomes. It prices tens of millions of people out of health coverage altogether and limits care for countless others. Yet leading Democrats are clinging to this system, proposing to cover more people but not changing the system itself except at the margins. The timidity extends to choice of words. No one is supposed to say “single-payer” or “national health insurance” anymore, because that is “politically unrealistic”; the most we are allowed is to talk of reforming the system incrementally so that someday it will morph into “Medicare for all.”

Thus, the proposals for reform taken most seriously by Democrats — including Barack Obama and Hillary Clinton — would retain the central role of the investor-owned private insurance industry as well as the thousands of for-profit businesses it pays to deliver medical services. This is the industry, mind you, that has brought us to the predicament we’re in now, so let’s take a quick look at it.

The U.S. health system is unique in treating health care as a commodity to be bought and sold in a marketplace. Care is distributed according to the ability to pay, not according to medical need. Private insurers compete by avoiding high-risk individuals, limiting services for those they do cover, and, whenever possible, shifting costs to other payers or to patients in the form of high deductibles and co-payments. We have the only health system in the world based on avoiding sick people. It’s a chaotic and fragmented system that requires mountains of paperwork, which is one reason premiums are so high. Employers who offer health benefits react by capping their contributions, so that workers pay more out of pocket and bear the full brunt of premium increases.

Insurers contract with hospitals, HMOs, and other health facilities to provide the care. They, too, are often for-profit businesses that promote lucrative services for well-insured patients (such as coronary catheterization for Medicare recipients), while giving short shrift to less profitable ones (such as psychiatric services for the indigent). To compete in a market environment, even not-for-profit facilities behave in much the same way as for-profit ones. Doctors often act as entrepreneurs, investing in health facilities to which they refer patients. And because they are usually paid on a fee-for-service basis, they have a strong incentive to overuse tests and procedures that have the greatest profit margins.

All of this drives up costs to the overall system, while yielding profits for the various players within it. In fact, there’s a fundamental illogic to trying to contain costs in a market-based system. Markets are about expanding, not contracting. Like all businesses, hospitals want more, not fewer customers — but only as long as they can pay. Conventional wisdom holds that we need to retain this system because many Americans are satisfied with it. But except for industry spokespeople and politicians whose campaigns they support, I’ve never met anyone who actually is. Many people like their doctors, but that is not the same as liking the system.

The reforms favored by leading Democrats vary somewhat, but all have at their heart expanding insurance coverage through public subsidies for those who can’t afford the premiums or, alternatively, permitting those without access to good, affordable insurance to enroll in a new Medicare-type program that would be set up to provide them with coverage. Some reform proposals include a mandate requiring everyone to be insured.

Many proponents hope that a parallel Medicare-like system would eventually crowd out its less efficient private competitors, that under a play-or-pay requirement, employers would gradually decide to stop providing coverage and just pay into the common pool. However, this wishful thinking overlooks the power of the private health industry, through its huge lobby, to influence the rules so that it continues to profit while the public system is undermined.

All of these variations in the Democrats’ plans run into this intractable dilemma: If the system stays essentially as it is and we try to expand coverage, costs will inevitably rise. On the other hand, attempts to control costs will inevitably reduce coverage. Without fundamental reform, coverage and costs have to move in the same direction. Yet, we don’t have the option of expanding both coverage and costs. At 16 percent of gross domestic product, our health-care system is already unaffordable. In fact, costs are the central problem; universal health care would be easy if money were no object. Furthermore, none of the proposed reforms offers any workable mechanism for controlling the unsustainable inflation in health costs. Attempts to regulate private insurers to prevent the worst abuses would probably do little more than add to the complexi-
ty and administrative costs of the system.

The proposed reforms also make the fundamental mistake of confusing insurance with health care. As many Americans are learning, the two are not the same — not by a long shot. Health insurance can easily be too skimpy or too laden with exceptions and co-charges to be of much use. What people really want when they're sick is medical care, not medical insurance, just as they want education for their children, not the opportunity to buy education insurance.

Despite the Democrats' coalescence around the same approach for achieving universal care, only one such plan has been implemented — the Massachusetts health-reform plan. It is therefore worth looking at in some detail.

**MASSACHUSETTS MIRACLE OR MIRAGE?**

This plan, which was enacted in April 2006 amid extraordinary hoopla, set out to cover the 500,000 to 750,000 uninsured residents of the state, and to see that the coverage for everyone else met a minimum standard. To that end, the state would purchase insurance for everyone with incomes beneath the federal poverty level, and partially subsidize it for those earning up to three times the poverty level (which now comes to $31,200 per year for an individual). Everyone else — roughly 200,000 to 250,000 people — would have to purchase his or her own insurance or face stiff fines. The legislation established a new state agency, the Commonwealth Health Insurance Connector, which would try to make sure insurance was affordable and met the minimum standard and which would also determine the level of subsidies.

Financing the plan was iffy from the outset. When fully implemented, it was projected to cost the state only $125 million in new money the first year — not very much in a state with a $26 billion budget. Mostly it would be financed by diverting existing funds from two sources: Medicaid, under a two-year waiver that would permit federal money to be used for this purpose, and the state's generous "free care pool," which was established to provide direct services to uninsured patients in safety-net facilities and is supported by assessments on hospitals and insurers. There would also be a paltry fine on employers who didn't offer insurance, but no one thought that would be an important source of funding. Success would depend crucially on the individual mandate requiring those with incomes more than three times the poverty level to pay for their own insurance.

What's happened since then? While those beneath the poverty level signed up for free insurance in even greater numbers than anticipated, very few people who were required to pay for their own insurance signed up. Even those eligible for partial subsidies were slow to enroll. The deadline to purchase insurance had to be extended, and 60,000 uninsured people were exempted from the mandate because — yes, that's right — they couldn't afford it (so much for universality). The state modified its requirement that all insurance meet a minimum standard. Jon Kingsdale, the executive director of the Commonwealth Health Insurance Connector, told me that was because the federal Employee Retirement Income Security Act prohibits states from setting standards when employers act as their own insurers (didn't the Massachusetts legislators know that when they crafted the law?), but he said that next year workers will be responsible for somehow upgrading their own policies, or (you guessed it) be fined.

Don't get me wrong. Massachusetts is to be congratulated for seeking to extend health care to everyone in the state. Every decent society should ensure health care, just as it does education, clean water, and police and fire protection. Massachusetts' plan is an ambitious and well-intentioned effort. But unfortunately, it's extremely unlikely to work for three main reasons.

First, the individual mandate is harsh, regressive, and probably unenforceable. It requires the near-poor to pay a much higher percentage of their income on health care than their more affluent neighbors. Although insurers are prohibited from charging more for people with medical conditions, older people have to pay more. The premiums for a 57-year-old are twice as much as for a 27-year-old. According to the Connector's Web site in March of this year, the least expensive plan for a 57-year-old had a premium of $4,700 per year, a $2,000 deductible, and substantial co-pays and co-insurance up to $4,000 per year. (That cap did not include prescription drugs.) So a hypothetical 57-year-old with a $32,000 annual income (just over three times the poverty level) could pay as much as $8,700 out of pocket — or over a quarter of his income. Family plans are, of course, different, but the effect is the same. Next year, those who haven't purchased insurance will be fined half the premium of the lowest-priced plan. Truly this is the Squeeze Blood from a Turnip Plan.

It also lets employers off the hook. They're supposed to pay a $295 per employee fine if they don't provide health benefits, but they're now considered to have met their obligation if they offer benefits to just 25 percent of their employees or contribute 33 percent of the premiums — no matter whether employees accept the offer and no matter how skimpy the coverage. And a $295 fine is no incentive to provide insurance that costs upward of $5,000. So the growing problem of under-insurance will be left to workers themselves to solve.

Second, like all such plans, the Massachusetts strategy pretends that having insurance is the same as having health care. The Connector makes much of the fact that some 300,000 people who were previously uninsured now have insurance, but most of those already had access to health care, either through the free-care pool or Medicaid. So it's something of a shell game, with money that would have been spent directly on health care passed through insurance companies instead (which keep quite a lot of it).

The Connector offers a choice of insurance plans from four different companies for those eligible for state subsidies (called Commonwealth Care), and from six companies for those who have to purchase their own (Commonwealth Choice). There is a trade-off between premiums, on the one hand, and deductibles and other out-of-pocket costs, on the other. The plans with the lowest premiums have the highest deductibles and other costs. But those who select the cheapest plans are likely to be precisely those least able to afford high out-of-pocket costs. So they could end up with health insurance that they can't afford to use but have to pay for anyway. The speaker of the Massachusetts House of Representatives, Salvatore DiMasi, one of the prime movers behind the plan, wasn't worried. He told The Boston Globe last year, "We're moving to
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Despite Gov. Schwarzenegger's sup-

Massachusetts, tried to pass similar legisla-

recently, California, inspired by

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THE VERDICT: SINGLE-PAYER

Massachusetts is not the first state to come

with a plan to provide near-universal health insurance to its residents, although it is the first to rely on an individual mandate. Maine tried it in 2003, Minnesota and Tennessee in 1992, to name a few. And Massachusetts made an earlier attempt in 1988. All were greeted with great enthusiasm and fanfare in the media. And all failed and died with scarcely a whimper. More recently, California, inspired by Massachusetts, tried to pass similar legislation. Despite Gov. Schwarzenegger's support, it died in the state Senate in January. It didn't have resources anywhere near comparable to those in Massachusetts, mainly the Medicaid funds and free-care pool, and had to rely more on employer contributions. What all the state efforts have had in common is that they left our current dysfunctional system essentially intact and simply tried to expand it around the edges.

The only workable solution is a single-
payer system (there, I said it), in which everyone is provided with whatever care he or she needs regardless of age and medical condition. There would no longer be a private insurance industry, which adds little of value yet skims a substantial fraction of the health-care dollar right off the top. Employers, too, would no longer be involved in health care. Care would be provided in nonprofit facilities. The most progressive way to fund such a system would be through an earmarked income tax, which would be more than offset by eliminating premiums and out-of-pocket expenses.

This is not the same as Medicare for all. Medicare is embedded in our market-based entrepreneurial private system, and therefore experiences many of the same inflationary forces, including having to deal with profit-maximizing hospitals and physicians' groups. Doctors' fees are skewed to reward highly paid specialists for doing as many expensive tests and procedures as possible. As a result, Medicare inflation is almost as high as inflation in the private sector and similarly unsustainable.

In addition, Medicare is not what it once was. For the past eight years, it has been at the mercy of an administration intent on dismantling and privatizing it. The prescription-drug benefit enacted in 2003 is an example. It's a bonanza for the pharmaceutical industry because it for-
bids Medicare from using its purchasing power to get good prices. Medicare recipients have also been encouraged to enroll in private health plans, which are paid on average 12 percent more than it would cost traditional Medicare to care for the same people. Even as public funds are siphoned off to the private sector, premiums and co-payments have been increased, and there are now proposals for means testing — a superficially attractive idea but ultimately a grave threat to any public program.

Over the years there have been many independent analyses of the costs of converting to a single-payer system, either within a state or nationally. They include studies by the General Accounting Office, the Congressional Budget Office, and consulting firms, such as the Lewin group, hired by state governments and, in Massachusetts, the state medical society. Most found that a single-payer system would initially cost roughly the same as the system it replaced, while providing universal coverage, and over time would be much cheaper.

Polls have shown that most people, and most Massachusetts doctors, favor a sin-
gle-payer system. The Boston Globe called for a national single-payer system last May. In an editorial about the big three automakers' desire to transfer health costs to the autoworkers' union, the Globe said, "It would make more sense for the federal government to oversee a national health system financed from taxes. The cost could be spread across the entire popula-
tion, rather than borne by Chrysler or other companies that no longer enjoy the assured profitability of their best years."

Nevertheless, the private insurance industry has managed to convince many political leaders, including progressives, that a single-payer system is unrealistic. But what is truly unrealistic is anything else. My greatest concern about the Massachusetts plan is that when it unravels, people will draw the wrong lesson. They will assume that universal care at a cost we can afford is impossible, and give up on it. It's not impossible; it's just unlikely to be achievable while leaving our dysfunctional system in place. Can we make it right? I'm tempted to say, "Yes, we can."

Marcia Angell, M.D. is a senior lecturer on social medicine at the Harvard Medical School and former editor-in-chief of The New England Journal of Medicine.
Medical Bankruptcy in Massachusetts: Has Health Reform Made a Difference?

David U. Himmelstein, MD, Deborah Thorne, PhD, Steffie Woolhandler, MD, MPH

“City University of New York School of Public Health, New York; Ohio University, Athens.

ABSTRACT

BACKGROUND: Massachusetts’ recent health reform has decreased the number of uninsured, but no study has examined medical bankruptcy rates before and after the reform was implemented.

METHODS: In 2009, we surveyed 199 Massachusetts bankruptcy filers regarding medical antecedents of their financial collapse using the same questions as in a 2007 survey of 2314 debtors nationwide, including 44 in Massachusetts. We designated bankruptcies as “medical” based on debtors’ stated reasons for filing, income loss due to illness, and the magnitude of their medical debts.

RESULTS: In 2009, illness and medical bills contributed to 52.9% of Massachusetts bankruptcies, versus 59.3% of the bankruptcies in the state in 2007 (P = .44) and 62.1% nationally in 2007 (P < .02). Between 2007 and 2009, total bankruptcy filings in Massachusetts increased 51%, an increase that was somewhat less than the national norm. (The Massachusetts increase was lower than in 54 of the 93 other bankruptcy districts.) Overall, the total number of medical bankruptcies in Massachusetts increased by more than one third during that period. In 2009, 89% of debtors and all their dependents had health insurance at the time of filing, whereas one quarter of bankrupt families had experienced a recent lapse in coverage.

CONCLUSION: Massachusetts’ health reform has not decreased the number of medical bankruptcies, although the medical bankruptcy rate in the state was lower than the national rate both before and after the reform.

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KEYWORDS: Health care financing; Health care reform; Health economics; Medical bankruptcy

Table 2 Medical Causes of Bankruptcy in Massachusetts, 2007 and 2009

<table>
<thead>
<tr>
<th>Percent of All Bankruptcies, 2007 (N = 44)</th>
<th>No. of Debtors and Dependents in Affected Families, 2007*</th>
<th>Percent of All Bankruptcies, 2009 (N = 199)</th>
<th>No. of Debtors and Dependents in Affected Families, 2009*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debtor cited medical illness/bills as a specific cause of bankruptcy or had large unpaid medical bills†</td>
<td>38.6%</td>
<td>12,700</td>
<td>45.6%§</td>
</tr>
<tr>
<td>Debtor or spouse lost ≤ $2 wk of income because of illness or complete disability</td>
<td>34.1%</td>
<td>11,219</td>
<td>32.1%§</td>
</tr>
<tr>
<td>Debtor or spouse lost ≤ $2 wk of income to care for ill family member</td>
<td>6.8%</td>
<td>2237</td>
<td>8.2%§</td>
</tr>
<tr>
<td>Mortgaged home to pay medical bills‡</td>
<td>8.1%</td>
<td>2665</td>
<td>5.3%§</td>
</tr>
<tr>
<td>Any of above</td>
<td>59.3%</td>
<td>19,510</td>
<td>52.9%§</td>
</tr>
<tr>
<td>Any personal bankruptcy</td>
<td>100%</td>
<td>32,268</td>
<td>100%</td>
</tr>
</tbody>
</table>

*Extrapolation based on number of personal bankruptcy filings during that fiscal year (from reference 6) and household size of medical/non-medical debtors.
†Unpaid medical bills > $5000 or > 10% of family income.
‡Percentage based on homeowners rather than all debtors.
§Difference between percentages in 2007 and 2009 nonsignificant, P > .40 for all comparisons.
Massachusetts’ recent health reform has generated laudatory headlines and a flurry of interest in state-based initiatives to achieve universal health insurance coverage. In 1988, a similar Massachusetts effort was also acclaimed and was imitated by several other states. Unfortunately, none of those efforts can be judged a success. The authors briefly review this earlier experience and caution against premature declaration of victory.

After seeming moribund for a decade, the drive for universal health care coverage shows signs of life. President Bush has proposed federal tax code changes to encourage the purchase of individual private health coverage and discourage very comprehensive, so-called gold-plated, plans. But most legislative activity has taken place at the state level.

Massachusetts’ effort has attracted the most attention. Legislation passed in April 2006 promises near-universal coverage through an “individual mandate” requiring the uninsured to purchase their own coverage, with subsidies for poor and near-poor individuals. After the bill’s passage, then-governor Mitt Romney declared: “Every uninsured citizen in Massachusetts will soon have affordable health insurance and the costs of health care will be reduced” (1).

Six weeks later Vermont enacted a plan offering subsidized coverage to poor and near-poor individuals, commencing in October 2007. If more than 4 percent of Vermonters remain uninsured in 2010, the legislature promises to consider making coverage mandatory.

California’s Governor Schwarzenegger, and officials in several other states, have proposed similar mandatory coverage programs. And President Bush lent his imprimatur to experimentation at the state level, proposing to allow states to
shift funds from safety net hospitals to innovative state programs to subsidize private coverage.

Between the late 1980s and the collapse of President Clinton’s plan in 1994, several states passed measures intended to dramatically expand coverage. In this commentary we review the impact of this earlier round of reform on the number of uninsured, using time trend data from the U.S. Census Bureau’s Current Population Surveys. The Census Bureau changed its survey methods in 1999 and produced estimates for that year using both the old and new methods, which differed by 5.5 percent nationwide (2). Hence, to ensure comparability with the post-1999 Census Bureau figures, we adjusted the earlier state estimates by the percentage difference between the Census Bureau’s two 1999 estimates.

ALTED STATES

The last round of reform kicked off in 1988. Like the present one, it started with Massachusetts legislation shepherded by a governor planning a presidential run. On passage of the legislation, then-governor Michael Dukakis announced: “I am very proud of the fact that Massachusetts will be the first state in the country to enact universal health insurance for all its citizens” (3). The New York Times editorialized that “Massachusetts last week ventured where no state has gone before: it guaranteed health insurance for every resident” (4). In 1988, 494,000 people were uninsured in Massachusetts. The number of uninsured has remained higher than that ever since (Figure 1A).

A year later Oregon made headlines with “the most far-reaching health care reform plan in the nation” (5), combining universal coverage with explicit rationing of expensive care. When the plan gained the federal waiver needed for full implementation, the governor said: “Today our dreams of providing effective and affordable health care to all Oregonians has come true” (6). The number of uninsured Oregonians did not budge (Figure 1B).

The year 1992 was the high watermark for state health reform; bills passed in Minnesota, Tennessee, and Vermont. According to the New York Times, “Minnesota is enacting a program that will be the most sweeping effort yet to provide health insurance to people who lack it. . . . Joy Wilson of the National Conference of State Legislatures described the Minnesota plan as ‘the first complete reform proposal in the United States’” (7). The plan called for universal coverage by July 1, 1997. Between 1992 and 1997 the number of uninsured in the state increased by 88,000 (Figure 1C).

Tennessee’s governor unveiled “the most radical health care plan in America” (8) and declared that “Tennessee will cover at least 95% of its citizens with health insurance by the end of 1994” (9). The number of uninsured dipped for two years, then rose to levels higher than ever (Figure 1D).

Also in 1992, “Governor Howard Dean, the only Governor who is a doctor, signed a law here today that sets in motion a plan to give Vermont universal
healthcare by 1995.” “This is an incredibly exciting moment that should make all Vermonters proud,” Dean said (10). The number of uninsured in the state has grown modestly since then (Figure 1E).

The next year Washington State passed “one of the most aggressive health care experiments in the nation, a program that would extend medical benefits to all 5.1 million residents of the state” (11). The bill called for universal coverage by 1999. Between 1993 and 1999 the number of uninsured in the state rose from 661,000 to 898,000 (Figure 1F).

By 1995, the New York Times was lamenting that “ambitious state plans to extend health insurance to more people took on importance as possible models for the nation. But nearly a year later most of those plans are dead or stalled as the states turn their attention to cutting budget deficits. Meanwhile the number of uninsured people is growing fast” (12).

Heralding the new round of health reform, Maine passed its Dirigo Health Program in 2003. A Boston Globe columnist opined that “Maine has just become the first state in the union to approve a plan to provide universal access to affordable health insurance” (13). On signing the legislation, Governor Baldacci said: “It’s bold and comprehensive, and it is now the law of our state” (14). In 2006 the Associated Press reported that Dirigo “is now providing coverage to about 5,000 people who previously weren’t insured” (15)—about 4 percent of Maine’s uninsured (Figure 1G).

**DOING THE SAME THING AND EXPECTING DIFFERENT RESULTS**

The reforms enacted between 1988 and 2003 differed in detail but shared common elements. All offered new public subsidies or expanded Medicaid for poor and near-poor people. All left the bulk of existing private health insurance arrangements undisturbed, although many included new insurance regulations or state purchasing pools to help make affordable coverage available to individuals and small businesses. Dukakis’s Massachusetts legislation, as well as the reforms in Oregon and Washington State, included “employer mandates”—requirements that most employers cover their workers. The Massachusetts and Washington plans also mandated that self-employed individuals purchase coverage—prefiguring the individual mandates in the 2006 Massachusetts bill.

Why did these plans fail? While they made rhetorical swipes at cost containment, none included effective cost-control measures. As health costs soared, legislatures backed off from forcing employers and the self-employed to pay ever-rising premiums, and the mandates requiring employers and the self-employed to purchase coverage were repealed.

While Medicaid expansions incorporated in the state bills swelled Medicaid rolls, the erosion of private coverage continued, offsetting any gains. (Indeed,
Massachusetts

Oregon

Minnesota

Tennessee

Percent Uninsured

Year

Dukakis Bill

Oregon Health Plan

MinnesotaCare

TennCare

1987 1993 1999 2005

1987 1993 1999 2005

1987 1993 1999 2005

1987 1993 1999 2005
Figure 1. Percentage of uninsured in various U.S. states that have attempted state-level health care reforms, 1987–2005.
despite SCHIP—the State Children’s Health Insurance Program—which has added about 5 million children to Medicaid nationally since 1997, the number of uninsured children has fallen by only 2 million, while the number of uninsured adults has risen by nearly 7 million.) Moreover, relying on Medicaid has proved fiscally problematic for the states; when the economy cools, tax revenues fall just as unemployment pushes families out of private coverage.

Like earlier reforms, the recent Massachusetts reform, and those proposed in California, include expansions of Medicaid and requirements that most employers make at least token contributions toward health coverage. While some earlier bills required self-employed individuals to buy coverage, the new ones will impose this mandate on all uninsured people with incomes above poverty. As in several previous reforms, Massachusetts has organized a purchasing pool to help make coverage available to the previously uninsured, lower overhead costs in the individual insurance market, and spread the costs of high-risk individuals over a large risk pool. The new reforms rely on a new funding stream—the premiums (or fines) that the uninsured will be required to pay. But once again, effective cost controls are absent.

In Massachusetts, any savings from reducing the overhead on individual policies are being eaten up by the 4 to 5 percent surcharge that the new purchasing pool will add to premiums in order to fund its own operations (16). The legislature shifted responsibility for additional cost-control measures to a new council charged with setting goals, identifying quality improvement and efficiency measures, and setting up an Internet site to compare providers. Meanwhile, premiums for the new coverage will cost at least $1 billion annually—probably much more. Funds diverted from the state’s existing free-care pool will cover only a fraction of this amount. And employer-provided coverage will predictably shrink as costs continue to rise, leaving the new program with an ever-larger responsibility for coverage.

Meanwhile, few of the near-poor uninsured seem able to afford even the newly subsidized policies (17), and the federal funds providing the bulk of the subsidies are set to expire in 2008. The unsubsidized coverage mandated for middle-income individuals (most of whom have incomes between $30,000 and $50,000) offers a bitter choice between unaffordable premiums (at least $7,200 for comprehensive coverage for a single 56-year-old) or plans so skimpy (e.g., a $2,000 per person deductible with 20% coinsurance for hospital care after that) that they hardly qualify as insurance. The religious coalition that was key to passage of the legislation has already called for a delay in enforcement of the individual mandate, fearing that it will place unbearable financial stress on many of the uninsured (18). In sum, neither government, nor employers, nor the uninsured themselves have pockets deep enough to sustain coverage expansion in the face of rising costs.

We remain convinced that more-radical reforms can simultaneously expand coverage and control costs (19). A shift from our complex and fragmented payment system to a simple single-payer approach could save about 14.3 percent
of total health spending—equivalent to $323 billion in 2007—on reimbursement-driven bureaucracy (20). Such administrative savings are unattainable with lesser reforms. A nonprofit national health insurance system could also curtail wasteful over-investment in medical technology (e.g., the proliferation of new cardiac care hospitals located near existing ones) and attenuate incentives for unnecessary and even harmful care.

Powerful momentum for health reform is building. Previous reform efforts that built on existing but defective insurance arrangements have quickly succumbed to their faulty economic logic. Added coverage meant added expense, on top of already exorbitant costs. It would be shameful to squander the present opportunity on yet another round of reforms that are politically realistic but economically chimerical.

REFERENCES


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e-mail: david_himmelstein@hms.harvard.edu
Myth 2: Health care in countries with nationalized systems have poor quality care and long wait times.

Fact: Other countries have high-quality care with lower levels of amenable mortality.


Case Study: Canada


Case Study: Taiwan


Variations in Amenable Mortality—Trends in 16 High-Income Nations

September 23, 2011
Authors: Ellen Nolte, Ph.D., and Martin McKee, M.D., D.Sc.
Journal: Health Policy, published online Sept. 12, 2011
Contact: Ellen Nolte, Ph.D., RAND Europe, enolte@rand.org, or Mary Mahon, Assistant Vice President, Public Information, The Commonwealth Fund, mm@cmwf.org

Synopsis
The rate of “mortality amenable to health care”—that is, deaths that are considered preventable with timely and effective health care—declined for people under age 75 across 16 high-income nations between 1997–1998 and 2006–2007. While all countries showed improvement, the United States improved the least.

Background
The concept of “amenable mortality” refers to unnecessary and untimely premature deaths from certain causes that are potentially preventable with timely and effective health care. Amenable mortality is one of many indicators used to measure health system performance across nations. This Commonwealth Fund–supported study examined trends in amenable mortality for people under age 75 in 16 high-income countries between 1997–1998 and 2006–2007.

Key Findings
• In 2006–2007, amenable mortality accounted for 24 percent of deaths under age 75 in the 16 countries studied.

• Rates were lowest in France, with 55.0 deaths per 100,000 people, followed by Australia (56.9 per 100,000) and Italy (59.9 per 100,000). The highest levels were in the United States, with 95.5 deaths per 100,000 people, followed by the United Kingdom (82.5 per 100,000) and Denmark (80.1 per 100,000).

• Between 1997–1998 and 2006–2007, levels of amenable mortality fell by 30 percent or more in 10 of the 16 countries; however, the rate in the U.S. fell by only 20.5 percent, the lowest level of decline. Ireland had the highest rate of decline (42.1%).

• If the U.S. had achieved levels of amenable mortality seen in the three best-performing countries—France, Australia, and Italy—84,300 fewer people under age 75 would have died in 2006–2007.
Addressing the Problem

Although amenable mortality fell consistently in all countries, the scale and pace of improvement varied. The United States’s poor performance and relatively slow improvement compared with other nations may be attributable to “the lack of universal coverage and high costs of care,” the authors conclude.

About the Study

The authors use data from the World Health Organization’s mortality database for the periods 1997–1998 through 2006–2007. The countries included in the study are: Australia, Austria, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, Netherlands, New Zealand, Norway, Sweden, the United Kingdom, and the United States. The causes of death considered amenable to health care include selected childhood infections, treatable cancers, diabetes, cerebrovascular disease and hypertension, and complications of common surgical procedures. The authors also included ischemic heart disease, but only considered 50 percent of such deaths as amenable to health care. The upper age limit was set at 75.

The Bottom Line

If the U.S. had achieved levels of amenable mortality seen in the three best-performing countries—France, Australia, and Italy—84,300 fewer people under age 75 would have died in 2006–2007.

Citation


This summary was prepared by Deborah Lorber.
Access to Care, Health Status, and Health Disparities in the United States and Canada: Results of a Cross-National Population-Based Survey

Karen E. Lasser, MD, MPH, David U. Himmelstein, MD, and Steffie Woolhandler, MD, MPH

Canada, with a system of universal health insurance, spends about half as much on health care per capita as does the United States, yet Canadians live 2 to 3 years longer. Few population-based data are available on health habits and processes of care in the 2 countries that might explain this paradox. Blendon et al. found that both US residents and Canadians were dissatisfied with their health care systems, that low-income US residents reported more problems obtaining care than their peers in 4 other English-speaking countries (Australia, Canada, New Zealand, and the United Kingdom), and that quality-of-care ratings were similar in the 5 countries. Among other studies, some but not all, have found better health care quality in Canada. Socioeconomic inequalities in health, commonly perceived as pervasive in the United States, seem less stark in Canada.

We analyzed population-based data from the recently released Joint Canada/US Survey of Health (JCUSH) to compare health status, access to care, and health care utilization in the 2 countries. We also sought to explore whether universal health insurance can mitigate disparities in health—a question complicated by differences in race, poverty, and immigrant status in the 2 nations.

METHODS

Data Sources

The JCUSH assessed health status, disease prevalence, behavioral risk factors, health care utilization, and access to care in the 2 countries. Conducted jointly by Statistics Canada and the US National Center for Health Statistics, the survey was administered between November 2002 and March 2003. The JCUSH was a 1-time, random telephone survey (land line only) of noninstitutionalized adults in both countries. Very-low-income populations, who may be less likely to own telephones, may be undersampled. The survey content was based on the Canadian Community Health Survey and the US National Health Interview Survey. The sample included 3505 Canadians and 5183 US residents. Using the computer-assisted telephone interview method, trained interviewers administered the survey in English and French for Canadian respondents and in English and Spanish for US respondents.

The JCUSH sample was designed to produce reliable national estimates for 3 age groups (18–44, 45–64, and 65 and older) by gender, with an oversampling of persons aged 65 years and older. Population estimates were derived from the 1996 Canada Census of Population and from the October 2002 US Current Population Survey. Poststratification adjustments for nonresponse were based on age, gender, and region for Canada and age, gender, and race/ethnicity for the United States. Response rates were 69.3% and 50.2% in Canada and the United States, respectively. The response rates were calculated by multiplying the proportion of valid telephone numbers by the cooperation rate. The proportion of valid telephone numbers was 100% in Canada and only 80% in the United States; the cooperation rate was 69.3% in Canada and 62.7% in the United States. No information is available on the characteristics of nonrespondents. The data were released for public use in mid-2004.

Definition of behavioral risk factors and chronic illnesses: We used the World Health Organization (WHO) definitions of overweight (body mass index [BMI] ≥25 but <30) and obesity (BMI ≥30). We defined sedentary lifestyle as no physical activity in the past 3 months. We used the JCUSH definition of current daily smokers—individuals who reported having smoked at least 1 whole cigarette and who smoked cigarettes every day at the time of the survey. The JCUSH defined depression as a 90% or higher likelihood of having had a major depressive episode in the past year, as determined from responses to a subset of questions from the WHO 1990 Composite International Diagnostic Interview. The JCUSH also asked respondents whether they had diabetes, asthma,
hypertension, arthritis, chronic obstructive pulmonary disease, or heart disease.

Definition of health status measures. The JCUSH administered the Health Utility Index to all respondents. The index is based on the Comprehensive Health Status Measurement System and provides a description of an individual's overall functional health on the basis of 8 attributes: vision, hearing, speech, mobility, dexterity, cognition, emotion, and pain and discomfort. The JCUSH also administered an impact-of-health scale, based on the following question: "How often does a long-term physical condition or mental condition or health problem reduce the amount or the kind of activity you can do at home, at school, at work, and in other activities, for example, transportation or leisure?" The impact-of-health scale was adapted from the WHO's International Classification of Functioning and has been shown to have good validity and reliability (according to Andrew MacKenzie, MA, oral communication, March 2005).

Definition of access to care and health services measures. Respondents were considered to have an unmet health care need if they felt they had needed, but had not received, a health care service in the past year. In accordance with screening guidelines in both countries, we defined women aged 18 to 65 years with an intact uterus as eligible for cervical cancer screening and women aged 50 to 69 years as eligible for mammography screening. The guidelines stipulate that eligible women receive Papanicolaou (Pap) tests every 3 years. Unfortunately, for the question "When was the last time you had a Papanicolaou test," JCUSH offered response choices of: "1 year to less than 3 years ago" and "3 years to less than 5 years ago." Hence, women who had fulfilled screening guidelines by receiving a Pap test exactly 3 years ago could not be differentiated from those whose most recent Pap test was more than 3 years (but less than 5 years) ago. For this reason, we present results for Pap tests "1 year to less than 3 years ago" and "3 years to less than 5 years ago."

Guidelines in both countries also stipulate that eligible women receive mammograms every 2 years. When asked the date of their last mammogram, women were offered responses including: "1 year to less than 2 years ago" and "2 years to less than 5 years ago." Because it is not possible to determine precisely which women received mammography within the recommended screening interval (2 years or less), we present results for both response categories.

Respondents also were asked to rate the quality of the physician, hospital, and community-based care they received in the past year and to rate their satisfaction with such care. The satisfaction and quality questions used in the JCUSH have not been validated, nor have they been tested for reliability.

Statistical Methods
We used the SAS computer statistical package, Version 9.1 (SAS Institute Inc, Cary, NC). We performed $\chi^2$ tests to compare differences in demographics, health status, and access to care between groups. In secondary analyses, we compared access to care and receipt of health services between US insured and US uninsured respondents, between US insured and all Canadian respondents, and between the US uninsured and all Canadian respondents. In analyses stratified by country, we also used the $\chi^2$ test to compare health status, access to care, and receipt of health services between White and non-White respondents, between foreign-born and native-born respondents, and between respondents in the highest and lowest income quintiles. To derive accurate tests of statistical significance, we used SUDAAN statistical software (Research Triangle Institute, Research Triangle Park, NC; 1989), which adjusts for the survey's complex sampling design.

We used multiple logistic regression to analyze country (United States vs Canada) as a predictor of 5 access-to-care variables (having a regular medical doctor, having contacted any medical doctor in the past 12 months, needing but not getting medicines because of cost, having unmet health care needs in the past year, and having a dental visit within the past year) and as a predictor of perceived quality of care and satisfaction with health care. In these analyses, we controlled for gender, age, income level, race, and immigrant status. Income data were missing on 32% of respondents. Because respondents without income data differed demographically from other respondents, we treated missing values for income as a separate group in the analysis.

To detect differences between the United States and Canada in the presence of disparities on the basis of race, income, and immigrant status, we included interaction terms between country and race, immigrant status, and income, respectively. Because the interaction terms between country and immigrant status and between country and income were statistically significant in many of the logistic regression models, we present data in multivariate logistic regression models stratified by country.

RESULTS

Demographic Characteristics, Behavioral Risk Factors, and Health Status
The demographic characteristics of respondents, according to country of residence, are shown in Table 1. The study population was representative of 206 million US adults and 24 million Canadian adults residing in households during 2002. United States residents were more likely to be non-White and native-born than were Canadians. United States residents had, on average, higher incomes and greater relative poverty rates (the proportion of respondents with income less than 60% of the median income) than did Canadians. With the important exception of having lower rates of cigarette smoking, US respondents were less healthy than Canadians, with higher rates of obesity, physical inactivity, diabetes, hypertension, arthritis, and chronic obstructive pulmonary disease (Table 2).

Access to Care, Receipt of Health Services, and Perceived Quality and Satisfaction
Table 2 also shows responses regarding access to care, receipt of health services, and perceived quality and satisfaction in the 2 countries. In unadjusted analyses, fewer US residents than Canadians had a regular medical doctor. United States residents were more likely to have forgone needed medicines in the past year. Compared with Canadian women, US women had higher Pap test rates (at both 3- and 5-year intervals). US women reported higher rates of mammography screening "within less than 2 years" but not within the past 5 years. US respondents were...
TABLE 1—Demographic Characteristics of the Sample, by Country of Residence: United States and Canada, 2002

<table>
<thead>
<tr>
<th></th>
<th>United States (n=5183), %a</th>
<th>Canada (n=3505), %a</th>
<th>χ² P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age, years</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-40</td>
<td>52.0</td>
<td>50.9</td>
<td>.36</td>
</tr>
<tr>
<td>41-64</td>
<td>43.3</td>
<td>43.6</td>
<td>.79</td>
</tr>
<tr>
<td>≥ 65</td>
<td>16.0</td>
<td>15.6</td>
<td>.62</td>
</tr>
<tr>
<td>Raceb</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>72.3</td>
<td>82.1</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Black</td>
<td>12.0</td>
<td>17.9</td>
<td>.02</td>
</tr>
<tr>
<td>Other/multiple race</td>
<td>15.7</td>
<td>17.9</td>
<td>.02</td>
</tr>
<tr>
<td>Hispanic</td>
<td>11.6</td>
<td>11.6</td>
<td></td>
</tr>
<tr>
<td>Foreign born</td>
<td>16.1</td>
<td>19.9</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Formal education beyond high schoolc</td>
<td>50.8</td>
<td>49.2</td>
<td>.21</td>
</tr>
<tr>
<td>Household income, US$d</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-19999</td>
<td>12.9</td>
<td>13.5</td>
<td>.03</td>
</tr>
<tr>
<td>20000-34999</td>
<td>17.9</td>
<td>22.2</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>35000-69999</td>
<td>35.5</td>
<td>39.6</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>≥ 70000</td>
<td>33.7</td>
<td>24.7</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Relative poverty rates</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>less than 60% of median income</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marital status: married/common law/partner</td>
<td>64.7</td>
<td>65.4</td>
<td>.16</td>
</tr>
</tbody>
</table>

aPercentages were weighted to approximate the US population as determined from the October 2002 Current Population Survey, and to approximate the Canadian population as determined from the 1996 Census.
bRace and ethnicity were self-reported. Because of small numbers, Blacks and Hispanics were not identified in the Canadian sample. In the United States, respondents of Hispanic descent were coded as Hispanic regardless of race (Black, White, or other race). 
cIncludes college degree or vocational training.
dCanadian dollars were adjusted for 2002 purchasing power parity.

slightly more likely than Canadians to give a rating of excellent to their hospital care (but not to their physician or community-based care). United States respondents also were more satisfied than Canadians with their hospital and community-based care, but not with

TABLE 2—Health Status, Access to Care, and Receipt of Health Services, by Country of Residence: United States and Canada, 2002

<table>
<thead>
<tr>
<th></th>
<th>United States (n=5183), %a</th>
<th>Canada (n=3505), %a</th>
<th>χ² P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavioral risk factors</td>
<td></td>
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<td></td>
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<tr>
<td>Overweight</td>
<td>33.9</td>
<td>34.0</td>
<td>.94</td>
</tr>
<tr>
<td>Obese</td>
<td>20.7</td>
<td>15.3</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Sedentary lifestyleb</td>
<td>13.6</td>
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<td>19.0</td>
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<td>Chronic illness prevalence</td>
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<td>Heart disease</td>
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<td>5.5</td>
<td>.43</td>
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<td>Major depression in past yeard</td>
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<td>.45</td>
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<td>Measures of health status</td>
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<td>Health Description Index excellent or very good</td>
<td>58.9</td>
<td>60.4</td>
<td>.21</td>
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<tr>
<td>Health Utility Indexe above lowest quartile</td>
<td>76.0</td>
<td>78.6</td>
<td>.01</td>
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<td>Difficulty with activities sometimes or often</td>
<td>28.3</td>
<td>27.3</td>
<td>.37</td>
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<td>Any cognitive problem</td>
<td>30.2</td>
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<td>Impact of health problems sometimes or often</td>
<td>29.1</td>
<td>29.7</td>
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Access to care/receipt of health services

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<tr>
<th></th>
<th>United States (n=5183), %a</th>
<th>Canada (n=3505), %a</th>
<th>χ² P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regular medical doctor</td>
<td>79.6</td>
<td>84.9</td>
<td>&lt;.0001</td>
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<tr>
<td>Needed medicines but could not afford them</td>
<td>9.9</td>
<td>5.1</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Papanicolaou test within 3 yearsf</td>
<td>88.9</td>
<td>79.0</td>
<td>&lt;.0001</td>
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<td>Papanicolaou test within 5 yearsf</td>
<td>91.9</td>
<td>82.9</td>
<td>&lt;.0001</td>
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<tr>
<td>Mammogram within less than 2 yearsf</td>
<td>88.8</td>
<td>81.3</td>
<td>.003</td>
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<td>Mammogram within less than 5 yearsf</td>
<td>96.3</td>
<td>94.9</td>
<td>.29</td>
</tr>
<tr>
<td>Contacted any medical doctor in past 12 months</td>
<td>82.5</td>
<td>83.4</td>
<td>.32</td>
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<tr>
<td>Dentist within past year</td>
<td>64.8</td>
<td>64.2</td>
<td>.60</td>
</tr>
<tr>
<td>With high blood pressure and received treatment in past year</td>
<td>92.4</td>
<td>89.5</td>
<td>.10</td>
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<tr>
<td>With asthma and received medication in past year</td>
<td>80.6</td>
<td>80.7</td>
<td>.98</td>
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<tr>
<td>With depression in past year and has consulted with a health professional</td>
<td>51.8</td>
<td>55.7</td>
<td>.36</td>
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Unmet health care needs1  
Because of long waiting time | 13.2                        | 10.7               | .002 |
Because of cost | 7.0                         | 0.8                | <.0001|
Because of other reasons2 | 6.4                         | 7.2                | <.0001|

Perceived quality of care and satisfaction with care

<table>
<thead>
<tr>
<th></th>
<th>United States (n=5183), %a</th>
<th>Canada (n=3505), %a</th>
<th>χ² P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of health care received—excellent</td>
<td>41.9</td>
<td>39.0</td>
<td>.02</td>
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<tr>
<td>Hospital care</td>
<td>53.7</td>
<td>46.4</td>
<td>.001</td>
</tr>
<tr>
<td>Physician care</td>
<td>58.9</td>
<td>59.3</td>
<td>.61</td>
</tr>
<tr>
<td>Community-based care</td>
<td>46.9</td>
<td>41.5</td>
<td>.14</td>
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<tr>
<td>Satisfaction with health care received—very satisfied</td>
<td>53.3</td>
<td>43.7</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Hospital care</td>
<td>60.0</td>
<td>44.9</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Physician care</td>
<td>68.1</td>
<td>66.2</td>
<td>.19</td>
</tr>
<tr>
<td>Community-based care</td>
<td>60.7</td>
<td>50.5</td>
<td>.006</td>
</tr>
</tbody>
</table>

Continued
TABLE 2—Continued

Note. COPD = chronic obstructive pulmonary disease.

*Percentages are weighted to approximate the US population as determined from the October 2002 Current Population Survey and to approximate the Canadian population as determined from the 1996 Census.
*Defined as no physical activity in the past 3 months.
*Individuals who report having smoked at least 1 whole cigarette and now smoke cigarettes every day.
*Nearly percent or greater probability that the respondent would have been diagnosed as having a major depressive episode in the past 12 months if he or she had completed the Long-Form Composite International Diagnostic Interview.
*This index provides a description of an individual’s overall functional health on the basis of 8 attributes: vision, hearing, speech, mobility, dexterity, cognition, emotion, and pain and discomfort.
*Derived variable on the basis of responses to the following question: “How often does a long-term physical condition or mental condition or health problem reduce the amount or the kind of activity you can do at home, at school, at work, and in other activities, for example, transportation or leisure?”
*Among women aged 18-65 years who had not undergone hysterectomy.
*Among women aged 50-69 years.
*On the basis of responses to the following question: “During the past 12 months, was there ever a time when you felt that you needed health care but you did not receive it?”
*Because of care not available in area, not available when required, felt would be inadequate, too busy, did not get around to it, did not know where to go, transportation problems, language problems, personal/family responsibilities, dislikes doctors/afraid, decided not to seek care, or other reason.

their physician care. Although more US respondents had unmet health care needs than did Canadians (13.2% and 10.7%, respectively), their reasons for having such needs differed. Seven percent of US respondents (and less than 1% of Canadians) had unmet needs because of financial barriers, whereas 3.5% of Canadians had unmet needs because of waiting times (vs less than 1% of US residents).

Table 3 presents data on access to care and receipt of health services according to country and insurance status (analyses limited to US respondents) and according to country and race. Across virtually all measures, uninsured US residents had much worse access to care, received fewer medical services, and rated the quality of their care lower than did insured US residents. The uninsured were also less satisfied with the care they received. The US uninsured fared much worse than Canadians on most of these measures, whereas the US insured fared slightly better than Canadians (results of statistical testing not shown). Non-Whites were more obese than were Whites in the United States, but the opposite was true in Canada. In both countries, non-Whites were more sedentary. Racial differences in access to care were less marked in Canada than in the United States. Yet among the approximately 8% of respondents who reported depression in the past year, non-Whites in both countries (and the US uninsured) were less likely to receive treatment than were Whites or the US insured. Unlike non-White US residents, non-White Canadians were less likely to have received a Pap test within the past 3 years. Non-Whites in both countries had lower perceived quality of care and satisfaction than did Whites.

Unadjusted analyses of health status, access to care, and receipt of health services according to country, immigrant status, and income are available from the authors by request. These analyses revealed that the US foreign-born residents have worse access to care than do the US native-born residents, and that US residents with incomes in the lowest quintile were less likely to have a regular medical doctor or to have contacted any medical doctor in the past 12 months than were US residents in the highest quintile. Such differences in access were not present in Canada.

Multivariate Results

Table 4 presents the results of multivariate analyses of access to care, using logistic regression to examine the impact of income, age, gender, race, and immigrant status. US residents (compared with Canadians) were less likely to have a regular doctor, more likely to have unmet health needs, and more likely to forgo needed medicines. US respondents were also more likely to say that they were very satisfied with the way health care services were provided. At the same time, US respondents were more likely to report that they were somewhat or very dissatisfied with health care services (odds ratio = 1.27, 95% confidence interval = 1.04, 1.54; data not shown in Table 4). In both the United States and Canada, respondents in the highest income quintile (compared with those in the lowest income quintile) had better access to care by most measures. The foreign-born respondents in both countries were less likely to perceive their quality(14,15),(983,991)
### TABLE 3—Access to Care and Receipt of Health Services, by Country and Insurance Status (for United States Only) and by Country and Race: United States and Canada, 2002

<table>
<thead>
<tr>
<th></th>
<th>US Insured (n = 4565), %a</th>
<th>US Uninsured (n = 523), %</th>
<th>US White Non-White, (n = 3826), %b</th>
<th>US Non-White, (n = 1127), %b</th>
<th>Canadian White (n = 2890), %c</th>
<th>Canadian Non-White (n = 565), %c</th>
</tr>
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<tbody>
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<td><strong>Access to care/receipt of health services</strong></td>
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<tr>
<td>Regular medical doctor</td>
<td>84.6</td>
<td>40.0</td>
<td>&lt;.0001</td>
<td>82.2</td>
<td>72.7</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Contacted any medical doctor in past 12 months</td>
<td>85.9</td>
<td>55.6</td>
<td>&lt;.0001</td>
<td>84.3</td>
<td>77.8</td>
<td>&lt;.0001</td>
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<tr>
<td>Dentist within past year</td>
<td>68.0</td>
<td>39.5</td>
<td>&lt;.0001</td>
<td>68.5</td>
<td>55.1</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>With high blood pressure and received treatment in past year</td>
<td>92.9</td>
<td>83.5</td>
<td>.15</td>
<td>91.8</td>
<td>93.8</td>
<td>.39</td>
</tr>
<tr>
<td>With asthma and received medication in past year</td>
<td>83.9</td>
<td>52.3</td>
<td>.02</td>
<td>79.7</td>
<td>81.5</td>
<td>.78</td>
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<tr>
<td>With depression in past year and has consulted with a health professional</td>
<td>55.6</td>
<td>36.2</td>
<td>.008</td>
<td>60.5</td>
<td>29.8</td>
<td>&lt;.0001</td>
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<td>28.3</td>
<td>&lt;.0001</td>
<td>8.3</td>
<td>14.4</td>
<td>&lt;.0001</td>
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<tr>
<td>Unmet health care needsd</td>
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<td>36.3</td>
<td>&lt;.0001</td>
<td>11.1</td>
<td>18.6</td>
<td>&lt;.0001</td>
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<td>.01</td>
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<tr>
<td>Because of cost</td>
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<tr>
<td>Because other reasonse</td>
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<td>8.7</td>
<td>&lt;.0001</td>
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<td>...</td>
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<tr>
<td><strong>Perceived quality of care and satisfaction with care</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Quality of health care received—excellent</td>
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<td>Physician care</td>
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<td>.001</td>
<td>56.3</td>
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<td>&lt;.0001</td>
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<td>36.8</td>
<td>&lt;.0001</td>
<td>56.6</td>
<td>44.2</td>
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<td>Physician care</td>
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<td>.0004</td>
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<tr>
<td>Sedentary lifestyled</td>
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<td>20.7</td>
<td>.0003</td>
<td>11.6</td>
<td>18.7</td>
<td>&lt;.0001</td>
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<tr>
<td>Current daily smokerse</td>
<td>15.0</td>
<td>30.9</td>
<td>&lt;.0001</td>
<td>17.5</td>
<td>14.6</td>
<td>.04</td>
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<td>&lt;.0001</td>
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<td>18.7</td>
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<td>7.4</td>
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<td>.70</td>
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<td>Major depression in past yeard</td>
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<td>16.8</td>
<td>&lt;.0001</td>
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<td>9.7</td>
<td>.34</td>
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<td><strong>Screening history</strong></td>
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<tr>
<td>Pap smear test within less than 3 yearsf</td>
<td>90.6</td>
<td>77.2</td>
<td>&lt;.0001</td>
<td>89.8</td>
<td>87.5</td>
<td>.19</td>
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<tr>
<td>Pap smear test within less than 5 years</td>
<td>93.3</td>
<td>82.2</td>
<td>.0002</td>
<td>93.1</td>
<td>89.6</td>
<td>.04</td>
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<td>Mammogram within less than 2 yearsf</td>
<td>89.6</td>
<td>74.5</td>
<td>.06</td>
<td>88.4</td>
<td>89.3</td>
<td>.77</td>
</tr>
<tr>
<td>Mammogram within less than 5 years</td>
<td>96.8</td>
<td>87.7</td>
<td>.11</td>
<td>95.9</td>
<td>97.7</td>
<td>.32</td>
</tr>
</tbody>
</table>

aPercentages were weighted to approximate the US population as determined from the October 2002 Current Population Survey and to approximate the Canadian population as determined from the 1996 Census.

bOn the basis of responses to the following question: “During the past 12 months, was there ever a time when you felt that you needed health care but you did not receive it?” Reasons for unmet health care needs are not presented according to race because of small numbers.

cBecause of care not available in area, not available when required, felt would be inadequate, too busy, did not get around to it, did not know where to go, transportation problems, language problems, personal/family responsibilities, dislike doctors/afraid, decided not to seek care, or other reason.

dDefined as no physical activity in the past 3 months.

efIndividuals who report having smoked at least 1 whole cigarette and now smoke cigarettes every day.

fNinety percent or greater chance that the respondent would have been diagnosed as having a major depressive episode in the past 12 months if they had completed the Long-Form Composite International Diagnostic Interview.

gAmong women aged 18-65 years who had not undergone hysterectomy.

hAmong women aged 50-69 years.
TABLE 4—Multivariate Analyses\(^a\) of Access to Care, by Country of Residence, Income, Age, Gender, Race, and Immigrant Status: United States and Canada, 2002

<table>
<thead>
<tr>
<th></th>
<th>All US Respondents</th>
<th>Disparities Among Canadian Respondents</th>
<th>Disparities Among US Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Compared With All</td>
<td>Canadian Respondents, Odds Ratio (95% CI)</td>
<td>Disparities With US Respondents, Odds Ratio (95% CI)</td>
</tr>
<tr>
<td></td>
<td>Regular medical doctor</td>
<td>0.66 (0.57, 0.75)(\dagger)</td>
<td>1.00 (reference)</td>
</tr>
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<td>Household income, US $(^a)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0-19 999</td>
<td>1.00 (reference)</td>
<td>1.00 (reference)</td>
</tr>
<tr>
<td></td>
<td>20 000-34 999</td>
<td>1.07 (0.73, 1.57)</td>
<td>1.23 (0.88, 1.71)</td>
</tr>
<tr>
<td></td>
<td>35 000-69 999</td>
<td>1.39 (0.98, 1.99)</td>
<td>2.21 (1.62, 3.01)(\dagger)</td>
</tr>
<tr>
<td></td>
<td>$\geq$ 70 000</td>
<td>1.71 (1.13, 2.60)**</td>
<td>2.58 (1.86, 3.57)(\dagger)</td>
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<tr>
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<td>Immigrant status</td>
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<td></td>
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<td>1.00 (reference)</td>
<td>1.00 (reference)</td>
</tr>
<tr>
<td></td>
<td>Foreign born</td>
<td>0.73 (0.54, 1.00)*</td>
<td>0.51 (0.41, 0.65)(\dagger)</td>
</tr>
<tr>
<td></td>
<td>Race</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>White</td>
<td>1.00 (reference)</td>
<td>1.00 (reference)</td>
</tr>
<tr>
<td></td>
<td>Non-White</td>
<td>0.98 (0.71, 1.35)</td>
<td>0.95 (0.76, 1.18)</td>
</tr>
<tr>
<td></td>
<td>Contacted any medical doctor in past 12 months</td>
<td>0.94 (0.81, 1.08)</td>
<td>1.00 (reference)</td>
</tr>
<tr>
<td></td>
<td>Household income, US $(^a)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0-19 999</td>
<td>1.00 (reference)</td>
<td>1.00 (reference)</td>
</tr>
<tr>
<td></td>
<td>20 000-34 999</td>
<td>1.05 (0.71, 1.54)</td>
<td>1.12 (0.78, 1.60)</td>
</tr>
<tr>
<td></td>
<td>35 000-69 999</td>
<td>1.17 (0.82, 1.68)</td>
<td>1.65 (1.19, 2.31)**</td>
</tr>
<tr>
<td></td>
<td>$\geq$ 70 000</td>
<td>1.51 (1.00, 2.27)*</td>
<td>1.72 (1.21, 2.43)**</td>
</tr>
<tr>
<td></td>
<td>Immigrant status</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Native born</td>
<td>1.00 (reference)</td>
<td>1.00 (reference)</td>
</tr>
<tr>
<td></td>
<td>Foreign born</td>
<td>0.90 (0.66, 1.22)</td>
<td>0.70 (0.54, 0.89)**</td>
</tr>
<tr>
<td></td>
<td>Race</td>
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<tr>
<td></td>
<td>White</td>
<td>1.00 (reference)</td>
<td>1.00 (reference)</td>
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<tr>
<td></td>
<td>Non-White</td>
<td>1.08 (0.78, 1.49)</td>
<td>0.89 (0.70, 1.12)</td>
</tr>
<tr>
<td></td>
<td>Self-perceived unmet health care needs in past year</td>
<td>1.27 (1.08, 1.48)** **</td>
<td>1.00 (reference)</td>
</tr>
<tr>
<td></td>
<td>Household income, US $(^a)</td>
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<td></td>
<td>0-19 999</td>
<td>1.00 (reference)</td>
<td>1.00 (reference)</td>
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<tr>
<td></td>
<td>20 000-34 999</td>
<td>0.75 (0.51, 1.10)</td>
<td>0.57 (0.40, 0.80)**</td>
</tr>
<tr>
<td></td>
<td>35 000-69 999</td>
<td>0.57 (0.40, 0.82)**</td>
<td>0.37 (0.27, 0.52)(\dagger)</td>
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|                          | $\geq$ 70 000      | 0.36 (0.23, 0.57)\(\dagger\) | 0.25 (0.17, 0.37)\(\dagger\) | 0.45 (0.30, 0.69)** *
|                          | Immigrant status  | | | |
|                          | Native born        | 1.00 (reference) | 1.00 (reference) | 1.00 (reference) |
|                          | Foreign born       | 0.74 (0.51, 1.08) | 1.01 (0.75, 1.35) | 0.74 (0.51, 1.08) |
|                          | Race               | | | |
|                          | White              | 1.00 (reference) | 1.00 (reference) | 0.74 (0.51, 1.08) |
|                          | Non-White          | 1.00 (0.69, 1.45) | 1.45 (1.12, 1.88)** | 1.00 (0.69, 1.45) |
|                          | Needed medicines but could not afford them | 2.12 (1.73, 2.59)\(\dagger\) | 1.00 (reference) | 0.74 (0.51, 1.08) |
|                          | Household income, US $\(^a\) | | | |
|                          | 0-19 999           | 1.00 (reference) | 1.00 (reference) | 1.00 (reference) |
|                          | 20 000-34 999      | 0.59 (0.38, 0.92)* | 0.54 (0.39, 0.77)** | 0.59 (0.38, 0.92)* |
|                          | 35 000-69 999      | 0.20 (0.12, 0.33)\(\dagger\) | 0.26 (0.19, 0.37)\(\dagger\) | 0.20 (0.12, 0.33)\(\dagger\) |

\(\ast\) Significant at \(p < 0.01\) level; \(\dagger\) p < 0.001. ** Significant at \(p < 0.001\) level; *** Significant at \(p < 0.0001\) level.
on the basis of immigrant status are also more pronounced in the United States than in Canada. Yet this comparison is problematic because the immigrant populations of the 2 countries differ. In Canada, many recent immigrants are Asian, whereas in the United States, Latinos are the largest immigrant group, followed by Asians. Unfortunately, the JCUH contains no data on the country of origin or the date of immigration, precluding more refined comparisons of immigrant health.

The JCUH is also limited by the different response rates in the 2 nations: 69.3% in Canada and 50% in the United States. The response rate reflects the proportion of valid telephone numbers and the cooperation rate of potential respondents. The proportion of valid telephone numbers is higher in Canada because numbers can be verified to be working and residential by calling telephone companies; in the United States, numbers cannot be confirmed in the same way. US residents were more likely than Canadians to refuse participation in the survey, and to break off the interview once it was started. Cultural differences between US residents and Canadians may account for both their differential participation in the survey and for the nature of their survey responses.

Comparisons of access to dental care in the 2 countries are of interest, given that neither country has universal dental coverage. Unlike physician services in Canada, which are fully insured in every province, dental coverage varies from province to province. In Canada, income disparities were much more pronounced for dental care than for medical care and were of a similar magnitude to the US disparities.

Universal coverage attenuates inequities in health care and should be implemented in the United States. However, adequate funding to avoid waits for care is essential; otherwise, satisfaction with care may diminish. Moreover, universal coverage is not sufficient to eliminate all health disparities. We also must address inferior systems of care in institutions serving the poor and nonfinancial access barriers such as cultural and language barriers. Simultaneously, policies to address unfavorable social conditions that impact health are sorely needed. Such policies could include reduction of income inequality through tax reform, improved

| TABLE 4—Continued |
|-------------------|-----------------|-----------------|
| ≥ 70,000          | 0.07 (0.03, 0.16)† | 0.09 (0.06, 0.14)† |
| Immigrant status  |                  |                  |
| Native born       | 1.00 (reference) | 1.00 (reference) |
| Foreign born      | 0.85 (0.53, 1.37) | 0.79 (0.58, 1.09) |
| Race              |                  |                  |
| White             | 1.00 (reference) | 1.00 (reference) |
| Non-White         | 1.15 (0.74, 1.79) | 1.54 (1.19, 1.98)*** |
| Dental visit within past year | 1.01 (0.91, 1.13) |
| Household income, US $5* |                  |                  |
| 0-19,999          | 1.00 (reference) | 1.00 (reference) |
| 20,000-34,999     | 1.41 (1.08, 1.85)*** | 1.35 (1.03, 1.77)* |
| 35,000-69,999     | 2.95 (2.28, 3.84)† | 2.39 (1.86, 3.08)† |
| ≥ 70,000          | 5.35 (3.88, 7.37)† | 4.79 (3.63, 6.32)† |
| Immigrant status  |                  |                  |
| Native born       | 1.00 (reference) | 1.00 (reference) |
| Foreign born      | 1.12 (0.89, 1.41) | 0.93 (0.75, 1.15) |
| Race              |                  |                  |
| White             | 1.00 (reference) | 1.00 (reference) |
| Non-White         | 1.00 (0.79, 1.27) | 0.67 (0.56, 0.81)† |
| Quality of health care | 1.11 (1.00, 1.23)* |
| received—excellent |                  |                  |
| Household income, US $5* |                  |                  |
| 0-19,999          | 1.00 (reference) | 1.00 (reference) |
| 20,000-34,999     | 1.24 (0.94, 1.65) | 1.08 (0.81, 1.44) |
| 35,000-69,999     | 1.28 (0.98, 1.66) | 1.35 (1.04, 1.76)* |
| ≥ 70,000          | 1.85 (1.38, 2.50)† | 1.82 (1.38, 2.38)† |
| Immigrant status  |                  |                  |
| Native born       | 1.00 (reference) | 1.00 (reference) |
| Foreign born      | 0.68 (0.54, 0.85)*** | 0.69 (0.55, 0.86)*** |
| Race              |                  |                  |
| White             | 1.00 (reference) | 1.00 (reference) |
| Non-White         | 0.91 (0.71, 1.17) | 0.70 (0.58, 0.84)*** |
| Satisfaction with health care | 1.47 (1.32, 1.63)† |
| received—very satisfied |                  |                  |
| Household income, US $5* |                  |                  |
| 0-19,999          | 1.00 (reference) | 1.00 (reference) |
| 20,000-34,999     | 1.23 (0.93, 1.62) | 1.26 (0.95, 1.67) |
| 35,000-69,999     | 1.36 (1.05, 1.75)* | 1.23 (0.95, 1.59) |
| ≥ 70,000          | 1.97 (1.47, 2.63)† | 1.74 (1.33, 2.26)† |
| Immigrant status  |                  |                  |
| Native born       | 1.00 (reference) | 1.00 (reference) |
| Foreign born      | 0.86 (0.69, 1.08) | 0.74 (0.60, 0.91)*** |
| Race              |                  |                  |
| White             | 1.00 (reference) | 1.00 (reference) |
| Non-White         | 0.75 (0.59, 0.96)* | 0.75 (0.62, 0.89)*** |

Note: CI = confidence interval.
*Multivariate logistic regression models control for gender, age, income level, race, and immigrant status.
Canadian dollars are adjusted for 2002 purchasing power parity. Respondents with missing income included as an income category, effect estimates not shown.
*P ≤ 0.05; **P ≤ 0.01; ***P ≤ 0.001; †P < 0.001.
housing, and expanded educational and employment opportunities for the poor.

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This article was accepted June 11, 2005.

Contributors
K.E. Lasser completed the analyses and led the writing. D.U. Himmelstein and S. Woolhandler supervised all aspects of study implementation and reviewed the article. All authors originated the study, conceptualized ideas, and interpreted findings.

Acknowledgments
We acknowledge John Orav for his help with statistical analyses; Maxim D. Shrayver, for reviewing drafts of this paper; Debra L. Blackwell, for providing us with information on the JCUSH data; and Melbeth Marlang, for her assistance in manuscript preparation. K.E. Lasser also thanks the Boggs Foundation for inviting her to be a guest at the Liguria Study Center for the Arts and Humanities.

Human Participant Protection
No protocol approval was needed for this study.

References
A systematic review of studies comparing health outcomes in Canada and the United States

Gordon H. Guyatt, P.J. Devereaux, Joel Lexchin, Samuel B. Stone, Armine Yalinizyan, David Himmelstein, Steffie Woolhandler, Qi Zhou, Laurie J. Goldsmith, Deborah J. Cook, Ted Haines, Christina Lacchetti, John N. Lavis, Terrence Sullivan, Ed Mills, Shelley Kraus, Neera Bhatnagar

ABSTRACT

Background: Differences in medical care in the United States compared with Canada, including greater reliance on private funding and for-profit delivery, as well as markedly higher expenditures, may result in different health outcomes.

Objectives: To systematically review studies comparing health outcomes in the United States and Canada among patients treated for similar underlying medical conditions.

Methods: We identified studies comparing health outcomes of patients in Canada and the United States by searching multiple bibliographic databases and resources. We masked study results before determining study eligibility. We abstracted study characteristics, including methodological quality and generalizability.

Results: We identified 38 studies comparing populations of patients in Canada and the United States. Studies addressed diverse problems, including cancer, coronary artery disease, chronic medical illnesses and surgical procedures. Of 10 studies that included extensive statistical adjustment and enrolled broad populations, 5 favoured Canada, 2 favoured the United States, and 3 showed equivalent or mixed results. Of 28 studies that failed one of these criteria, 9 favoured Canada, 3 favoured the United States, and 16 showed equivalent or mixed results. Overall, results for mortality favoured Canada (relative risk 0.95, 95% confidence interval 0.92–0.98, \( p = 0.002 \)) but were very heterogeneous, and we failed to find convincing explanations for this heterogeneity. The only condition in which results consistently favoured one country was end-stage renal disease, in which Canadian patients fared better.

Interpretation: Available studies suggest that health outcomes may be superior in patients cared for in Canada versus the United States, but differences are not consistent.

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Competing interests: None declared.

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Canada and the United States are similar in many ways, and until 40 years ago their health care systems were nearly identical. At that time Canada adopted a national insurance program (medicare). Simultaneously, the United States implemented its Medicare program for elderly people.

Although both nations continue to rely largely on private funding for drugs, they now differ substantially in both the financing and delivery of physician and hospital services. With respect to financing, Canada has virtually first-dollar, universal public coverage of hospital and physician services. With respect to delivery, not-for-profit institutions provide almost all hospital services, and large for-profit organizations are almost entirely excluded from the provision of physician services. In contrast, the United States relies on a mixture of public and private insurance to finance health care, and leaves 16% of the population without coverage. Investor-owned for-profit providers play a substantial role.

The United States also spends far more on health care, i.e., approximately 15% of its gross domestic product versus about 10% in Canada. In 2003, Americans spent an estimated US$5,635 per capita on health care, while Canadians spent US$3,003.

How do these alternative approaches to health care financing and delivery affect health outcomes? Although a number of factors beyond the health care system influence the health of populations, for conditions amenable to medical treatment the health care system is a major determinant of outcomes. The choices the United States and Canada have made may influence access and quality of care, and hence morbidity and mortality. To inform debate on this issue we undertook a systematic review addressing the following question: Are there differences in health outcomes (mortality or morbidity) in Canada and the United States for patients of any age with the same diagnosis? We excluded randomized trials, studies that identified the patients on the basis of the occurrence of one of the adverse health outcomes of interest, and national disease-specific mortality studies that failed to define the population at risk (that is, those with the disease of interest). For instance, we excluded studies of national rates of death from cancers because lower mortality may be due either to a lower incidence of cancer or to better care for those with the disease.

The review process required many methodological decisions not fully anticipated in the initial protocol. These included issues regarding eligibility. For instance, we considered whether or not to consider low-birth-weight a disease. We decided not to do so because it has a wide variety of social and medical causes with associated differences in prognosis. On the other hand, we decided to include studies of the outcomes of pregnancy because we considered that prenatal and obstetrical care were potentially important types of care that we could legitimately assess. We discussed whether to include studies that evaluated critically ill patients with an array of diagnoses. We decided to do so on the basis that acute illness severity scores are very powerful predictors of outcome across a range of critically ill populations.

Only members of our team who were both blinded to the results of the studies in question and had expertise in the clinical issue at hand participated in these decisions.

Methods

Interested readers can obtain the detailed protocol for this review from the corresponding author. In brief, the formal search included papers and abstracts published up to the end of 2002. The process was standard for systematic reviews: definition of eligibility criteria; a broad search identifying possibly eligible titles and abstracts; selection of titles and abstracts that might possibly be eligible; selection of eligible reports from review of full documents; and abstraction of descriptive information, validity, and outcome data.

Eligibility criteria

We included published and unpublished prospective or retrospective observational studies comparing health outcomes (mortality or morbidity) in Canada and the United States for patients of any age with the same diagnosis. We excluded randomized trials, studies that identified the patients on the basis of the occurrence of one of the adverse health outcomes of interest, and national disease-specific mortality studies that failed to define the population at risk (that is, those with the disease of interest). For instance, we excluded studies of national rates of death from cancers because lower mortality may be due either to a lower incidence of cancer or to better care for those with the disease.

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Only members of our team who were both blinded to the results of the studies in question and had expertise in the clinical issue at hand participated in these decisions.

Study identification

A professional librarian (N.B.) conducted a search for the studies in bibliographic databases that included EMBASE (1980–Feb. 2003), MEDLINE (1966–Feb. 2003), HealthSTAR (1975–Feb. 2003), EBM Reviews — Cochrane Central Register of Controlled Trials (2003, Issue 1) and Dissertation Abstracts Ondisc (1969–Feb. 2003). The search included an iterative process to refine the search strategy through testing of several search terms and incorporation of new search terms as new relevant citations were identified.

We further conducted a “cited reference search” in Web of Science on the relevant papers and used the “related articles” feature in PubMed. After reviewing 1,357 of the “related articles” and “cited reference” search results and finding only one potentially (but not ultimately) eligible article, we discontinued that part of the search.

Screening process

Our initial search identified 4,923 potentially eligible studies (Fig. 1). Teams of two reviewers independently evaluated titles and, when available, abstracts to determine whether or not the articles might meet eligibility criteria. If
either reviewer concluded that there was any possibility that the article would fulfill eligibility criteria, we obtained the full-text publication.

Assessment of study eligibility

Research staff masked the results (blacked out the results in tables and text) of all studies identified for full evaluation in the screening process. Teams of two reviewers independently assessed all studies identified for full evaluation and resolved disagreements by discussion. Reviewers never assessed the same report at the title/abstract stage and at the full report stage.

For papers deemed eligible, two data abstractors with access to the unmasked paper reviewed the eligibility decision. If the data abstractors had questions about eligibility, the pair of reviewers who initially adjudicated the full blinded paper was informed of the reason for the concern and, still blind to results, reevaluated their initial decision. Their decision after this second review was deemed final.

Methodological quality assessment and data abstraction

Teams of two reviewers independently assessed the methods and abstracted data from all eligible studies; they resolved disagreements through discussion. Information relevant to the methodological quality of the studies included the study design, the populations selected (criteria for diagnosis, similarity of patient groups in the two nations and the degree to which the studied population was representative of the wider universe of patients with the diagnosis), measurement of outcome (that is, the extent to which the outcome measures were defined similarly, and monitored similarly), loss to follow-up, and the extent of risk adjustment for confounders that might affect prognosis. Other data we abstracted included the geographic region in which the study was conducted, the period of observation, the number of participants, and the main outcomes.

We classified studies as being of high or low quality according to the following two criteria:

1. Did the investigators adequately adjust for prognostic differences? Specifically, we considered adjustment inadequate if either disease severity or comorbidity were not considered in the analysis. In the case of cancer, this decision resulted in only studies documenting cancer stage being rated as of high quality.

2. Did the investigators enroll a sufficiently diverse and representative population that it is plausible that the outcomes in patients studied are representative of the outcomes in the country at large? Studies might enroll similar populations, and adjust for prognostic differences, but only examine one delivery site in each country, or only sites in a single state. Such studies would fail the second criterion. We considered studies that enrolled patients from a number of regions, or from a very large population within a region, as meeting this criterion.

For each study, two reviewers blinded to outcome independently made the rating of high or low quality. If we identified apparently contradictory decisions across pairs of reviewers (for instance, if one set of reviewers rated a study using Canadian and United States cancer databases as high quality, and another team rated a different study using the same databases as low quality), we informed reviewers of the inconsistency. The reviewers resolved the issue through discussion.

In response to editorial suggestions, we further evaluated the issue of representativeness with more rigorous and explicit criteria. We considered studies as fully representative only if samples in both countries were drawn from similar population-based registries that included at least one entire Canadian province and at least two entire American states, or a random sample of patients from at least an entire province and two entire American states.

For all eligible studies, we sent the original authors our summary of the information abstracted from their article and asked them to correct and complement as they saw fit (11 authors, representing 16 studies, responded). When authors provided additional specific information or corrections, we incorporated these in our descriptive tables. For two eligible abstracts,4, 5 we requested and received a complete description of the study from the authors.

Data analysis

When studies reported any outcome of importance to patients (morbidity, mortality, or quality of life) but did not state statistical significance, we calculated associated p values using a threshold of 0.05 for significance.

Because it was the most reliably and consistently measured outcome, we restricted the meta-analyses to the outcome of total mortality. When studies presented outcome data at 1 and 6 months, we included data at 6 months, reasoning that if outcomes differ at 1 but not 6 months this is likely to be of limited importance to patients.

The statistical analysis included each non-overlapping study that provided the proportion of patients who died either in Canada or the United States, along with the associated variance (or data that allowed its calculation). We pooled the results using a random-effects model. We assessed heterogeneity in results using the Cochrane’s Q test,6 and calculated the I².7 Relative risk was used as the summary statistic. When articles reported separate procedures (for instance, mortality for different operations; mortality for different cancers), we treated each patient population as if
Table 1: Summary of findings

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<tr>
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<th>High-quality studies</th>
<th>Low-quality studies</th>
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<td>Results favoured USA</td>
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<td>3</td>
</tr>
<tr>
<td>Results favoured CA</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td>Mixed or equivocal</td>
<td>3</td>
<td>16</td>
</tr>
</tbody>
</table>

it came from a separate study. Similarly, if an article reported major sub-populations within a patient group (such as low and high income), we treated these groups as coming from separate studies. We created funnel plots to provide graphical evaluation of publication bias and used a statistical technique suggested by Egger to provide a quantitative evaluation of the likelihood of publication bias.8

To try to explain heterogeneity in effect estimates from individual studies, we conducted meta-regression analyses in which an additive between-study variance component of residual heterogeneity was used in accordance with the random effects. The dependent variable was the log of the relative risk. The independent variables were based on the following a priori hypotheses explaining heterogeneity:

- overall study quality based on adequacy of adjustment for potential confounders and representativeness of the sample
- source of the data (primary data collection versus administrative database)
- whether care was primarily out-patient or in-patient
- the extent to which US patients had health insurance (in-hospital studies involving primarily those ≥65 years of age or any study undertaken in Veterans Administration facilities will have excluded most uninsured people)
- completeness of follow-up
- whether the US site included or was restricted to New England (hypothesized to have better outcome than in other areas of US)
- the underlying health problem (renal failure, cardiology, cancer, surgery, and other)
- data collection before or after the median date of 1986 (we initially considered the key date for Canada before or after all provinces entered into Medicare [1970], and for the United States before or after the introduction of Medicare and Medicaid [July 1, 1966]; this choice, however, would have led to insufficient variability: almost all the data came from after 1970).

Results

As presented in Figure 1, of the 4,923 titles and abstracts identified, 498 appeared potentially eligible on initial review, and 42 of these proved eligible on review of the full article. We excluded three of these publications because the data overlapped substantially with those in another report that was eligible and included.10-12 One study was reported in two complementary articles.13, 14

Table 1 summarizes the results in terms of high- and low-quality studies, and whether results favoured the United States, Canada, or showed mixed findings or no difference. Tables 2 to 4 present key methods and results beginning with the highest-quality studies from population registries.

Fig. 1: Methodological steps in systematic review.
with adequate adjustment (unshaded); then the intermediate quality studies that were reasonably representative and had adequate adjustment (lightly shaded); and finally the low-quality studies in which the populations were unrepresentative or adjustment was inadequate (shaded).

Of the 5 studies that reported superior outcomes in the United States, we classified 2 as high quality (one of which utilized population registries) and 3 as low quality (Table 2). Of the 2 high-quality studies, one presents results from a population-based registry that showed higher 30-day post-operative mortality after hip fracture in Manitoba and Quebec in comparison to several American states. Canadians had longer wait times for surgery, longer post-operative lengths of stay, and higher inpatient mortality. Differences in mortality were not, however, attributable to differences in wait times for surgery. Furthermore, the increase in mortality did not persist over time, and Canadian outcomes proved superior for several other surgical procedures.

The second high-quality study was prospectively designed to examine outcomes of cataract surgery in a number of countries, including Canada and the United States. The two reports of this study fail to describe the mix of insured and uninsured patients in the US sample.

The first of the low-quality studies favouring the US presented results from administrative databases in the United States and Ontario and showed similar survival in patients with colon and lung cancer and Hodgkin’s lymphoma, but superior survival in American breast cancer patients. Another study using the same databases over a somewhat different (but overlapping) period showed similar results for breast cancer and Hodgkin’s disease, but found an overall survival advantage for American patients in colon cancer and Canadian patients in lung cancer (Table 4). Two studies that used the same database but restricted their analysis to Toronto versus American cities that the authors considered comparable showed a significant advantage or a trend toward superior survival in breast cancer patients in Canada versus the United States (Table 3).

Other low-quality studies favouring the United States include populations of patients with rheumatoid arthritis and patients after myocardial infarction (MI). In the latter study looking at only one Canadian and one US hospital, more aggressive treatment in the United States was associated with superior functional status, but not with any difference in recurrent MI or death. Another much larger observational study also found greater use of invasive treatments in the US with superior functional status, but similar death and reinfarction (though higher stroke) rates (Table 4). These results are not completely consistent across studies. Indeed, one study that included 14 American and 4 Canadian sites and over 2,000 patients demonstrated similar rates of invasive procedures in patients who experienced non-Q wave MI and unstable angina, with a lower rate of recurrent ischemia in hospital, at 6 weeks, and at 1 year in Canadian patients (Table 3). The finding of similar rates of cardiovascular deaths in MI patients, with the exception of slightly lower death rates in American elderly patients in the first 3 months after MI, does appear consistent (Table 4).

Of the 14 studies that demonstrated superior outcomes in Canada, we classified 5 as high quality (3 from population-based registries, including all patients from at least one Canadian province and two US states) and 9 as low quality (Table 3). Five studies, two high quality (one from a population-based registry) and three low quality, showed consistently lower mortality in Canadian than American patients with renal failure (Table 3). These studies included administrative database studies of black patients receiving renal transplants, of Manitoban and American patients receiving either hemodialysis or peritoneal dialysis, and of the entire Canadian and American populations receiving peritoneal dialysis or any dialysis. Another study that almost certainly used similar data sources but did not report their methods as thoroughly also suggested lower mortality in Canadian than American patients receiving dialysis or renal transplants. The strongest study from a data collection and adjustment point of view (though with a small number of American patients and not drawn from a population-based registry), a prospective cohort study in which the investigators were responsible for data collection, showed lower mortality in Canadian patients undergoing peritoneal dialysis.

The most rigorous of the dialysis studies, taking into account both sampling and adjustment, used data from 5,192 patients in the US case-mix severity study (a random sample of all Americans who began dialysis in 1986 or 1987). The investigators complemented these data with clinical and administrative records from the Henry Ford Hospital in Detroit, Michigan, and review of charts of all patients with end-stage renal disease treated in the province of Manitoba between 1983 and 1989. Case-mix adjustment included age, sex, and a wide range of comorbidity (including diabetes, coronary artery disease, heart failure, respiratory disease, and cancer). After adjustment for both case-mix and treatment variables (including likelihood of transplant) the relative mortality rate was 47% higher in the US population (95% confidence interval [CI] 16%–87%). One could argue that treatment variables should not have been included in the adjustment. If so, the increased risk of death in the American population would have been even higher. By far the biggest treatment-related variable that
had an impact on mortality was dialysis (relative mortality 0.53 in those transplanted). Transplantation rates were 35% in Manitoba and 17% in the American sample.

A series of reports used the National Cancer Institute’s Surveillance, Epidemiology, and End Results (SEER) and the Ontario Cancer Registry (OCR) to compare cancer patients’ outcomes. Two of these population-based studies also conducted chart reviews in a sample of Canadian patients to obtain staging information not available in the OCR database. These investigations showed lower mortality rates in lower stage supraglottic and glottic cancer in Canadian patients, along with lower rates of laryngectomy. The stronger of these studies, focusing on patients with higher-stage disease, but Canadian patients also conducted chart review to obtain staging information not available in the OCR database. These investigations showed lower mortality rates in lower stage supraglottic and glottic cancer in Canadian patients, along with lower rates of laryngectomy. The stronger of these studies, focusing on patients with higher-stage disease, but Canadian patients with lower-stage disease showed a statistically significant survival advantage in years 2, 3, and 4.

The other studies utilizing these databases are weaker because they do not adjust for cancer stage or severity. One set of reports compared Toronto to a number of American cities and suggested that poorer Canadian patients fared better than their American peers. These results were only partly consistent with a report from the entire SEER database and the entire province of Ontario that supported the finding of better outcomes in poorer Canadians than Americans, but also suggested that wealthier Americans with cancer may fare better than wealthier Canadians (Table 4). Another study that used the same databases and focused on head and neck cancer showed mixed results (Table 4). Other mixed findings from studies using these databases are described earlier in the Results. Three smaller studies of cancer patients that relied on chart review showed no differences in outcomes between Canada and the United States (Table 4).

A high-quality population-based study that looked at the entire cystic fibrosis population in both countries showed apparent benefits in height and weight from Canadian care (Table 3). A second study restricted to one Canadian and one US institution suggested higher survival in Canadian cystic fibrosis patients. A study comparing AIDS patients in British Columbia to those in a number of American cities suggested lower death rates in Canadian patients; the only adjustment was for baseline CD-4 count.

Of the 19 studies that demonstrated comparable or mixed outcomes, we classified 3 as high quality (two using population-based registries) and 16 as low quality (Table 4).

We have described some of these studies in the context of studies included in Tables 2 and 3. High-quality studies relying on administrative databases of broad populations have shown equivalent mortality in Canada and the US in coronary artery bypass grafting, lower mortality in Canada in a variety of low and moderate risk surgeries, and higher short but not long-term mortality in high-risk surgeries, including hip fracture repair. Lower-quality studies have suggested a similar incidence of low-birth-weight infants, no difference in outcomes in asthmatic patients presenting to emergency departments, no difference in outcomes in critically ill patients or demented patients admitted to hospital, and no differences in functional status in patients with rheumatoid arthritis. A study that relied on volunteer call-in found that Canadian women with nausea and vomiting of pregnancy had more depression and more adverse effects on marital relationships, but fewer lost hours of paid work, less hospitalization, and less weight loss than did American women suffering from the condition. A study that relied on an administrative database from one US and one Canadian hospital found higher intensive care unit (ICU) admission rates and longer ICU stays, but shorter overall hospital stays, in US patients hospitalized for trauma.

**Statistical analysis**

The statistical analysis was based on results of 83 populations in 23 studies that reported all-cause mortality with sufficient completeness for inclusion. The statistical analysis was based on results of 83 populations in 23 studies that reported all-cause mortality with sufficient completeness for inclusion. The plot suggests some asymmetry, with a number of low-precision studies favouring Canada without corresponding studies favouring the United States. This is consistent with the statistical analysis, which suggested rejecting the null hypothesis of no asymmetry (p = 0.02). One possible explanation for this result is publication bias in Canada’s favour.

Table 5 presents the results of the univariable and multivariable regressions. The results show no variables as significant in the univariable model, whereas several are significant in the multivariable model; study quality (higher-quality studies tend to favour the US); whether New England was included (inclusion of New England tends to an estimate of lower mortality in Canada); and disease category (renal failure, cancer, and surgery tended to favour
Fig. 2: Funnel plot for all-cause mortality, US versus Canadian studies.

Canada; cardiology and other studies tended to favour the US). Neither the univariate models, nor the multivariate model (despite apparently explaining 49% of the variance) were stable. For instance, omission of two relatively large studies that represented outliers resulted in very different results.

Interpretation

In this systematic review, we demonstrated that although Canadian outcomes were more often superior to US outcomes than the reverse, neither the United States nor Canada can claim hegemony in terms of quality of medical care and the resultant patient-important outcomes. In virtually all areas, study results have demonstrated some apparent advantages for Canada and others for the United States. In cancer, where a number of strong studies have used population-based registries, Canadian outcomes appear superior in head and neck cancer, and possibly for low-income patients with a variety of cancers; American women with breast cancer appear to have better survival rates than Canadian women. In data from population-based registries, Canadians enjoy better risk-adjusted survival after a variety of surgeries, but American outcomes appear superior after hip fracture repair and cataract surgery. Studies that do not utilize population-based registries suggest that Americans have, possibly as a result of more aggressive interventions, less angina after MI, but the benefit may come at the price of increased strokes and bleeding. There is one area in which Canadian outcomes appear consistently superior: end-stage renal failure. Even here, however, as we shall discuss, one cannot be certain that superior medical care is responsible for the differences.

The strengths and limitations of this systematic review bear on its interpretation. We established a team that included expertise in medicine, clinical epidemiology, health economics, health policy, and health services research in both Canada and the United States, developed explicit eligibility criteria, and conducted a comprehensive search that uncovered a number of eligible articles not included in a previous systematic review. We excluded studies, such as randomized trials of medical interventions in which Canadian investigators recruited some patients and American investigators others, in which care would be idiosyncratic or atypical of care in usual clinical practice. Our thorough examination of each study addressed issues of validity (selection of populations, adjustment for confounders, loss to follow-up) and generalizability (breadth of samples, including specifying studies that came from population-based registries).

Reviewers who determined eligibility and judged validity and generalizability were blind to the results of the study. In decision-making regarding methodologic issues that arose as the review progressed, we recused investigators who were aware of the study results. We made explicit a priori hypotheses regarding possible sources of heterogeneity, and tested these hypotheses in a thorough statistical analysis. Our results are consistent with those of a prior systematic review that completed its search (less comprehensive than ours) in 1997, conducted a limited assessment of study validity, and failed to conduct a formal meta-analysis.

The main limitation of our review is in the uneven quality of the original studies, and the threats to validity that remain even in those studies of high quality. There were two key ways a study could fail to adequately address our question: either the population might be small or narrow, or the investigators might not carry out statistical adjustment for potential differences in underlying prognosis. Most of the studies we identified failed one of these two criteria (Tables 2–4).

Even studies that meet these criteria, and meet the more rigorous criterion of utilizing population-based registries, present challenges with respect to their interpretation. In general, a health care system can improve outcomes in two ways. One is to facilitate early entry to care, including preventive care, and thus avoid unnecessary morbidity and mortality. For instance, if access to primary care is easy and without financial obstacles, one might expect superior outcomes in hypertension (e.g., fewer strokes). Alternatively, a system might generate better outcomes by better treatment of serious morbidity once it arises. For instance, stroke patients may be more likely to receive early thrombolysis, thromboprophylaxis, and multidisciplinary rehabilitation.
If a health system does better in early identification and treatment, diseased patients in that system will appear less ill. Statistical adjustment for severity of illness is in general appropriate – one wouldn’t want to attribute to better care what is in fact due to a better prognosis. The risk, however, is that the adjustment will obscure the benefits of early identification and treatment.

Such issues become relevant in comparisons of outcomes between Canada and the United States. For instance, the United States does a better job of screening women for breast cancer. To the extent that early diagnosis reduces breast cancer deaths, one would expect a survival advantage for American women. At the same time, any apparent increase in longevity may be largely, or even completely, due to the length and lead-time biases inherent in observational studies of screening.

A number of studies using the American National Cancer Institute’s Surveillance, Epidemiology, and End Results Program (SEER) and the Ontario Cancer Registry (OCR) have addressed breast cancer outcomes. Although studies using these databases and examining Toronto versus a number of US cities suggest higher breast cancer survival in low-income Canadian women than in their American counterparts, several studies using the entire database have suggested superior overall breast cancer survival in American women. We rated these studies as low quality because of failure to adjust for disease stage. If higher screening rates or better self-detection in the US result in the identification of earlier stage histologic cancers that would have remained asymptomatic and dormant, studies would demonstrate superior survival despite equivalent medical care. On the other hand, perhaps there is a true American advantage that results from higher rates of screening or from superior care after diagnosis. The data do not allow assessment of the relative likelihood of these possible explanations.

These studies raise another important limitation of the current data. Canada has largely (though not completely) eliminated gradients in access to care by socioeconomic status that remain in the United States, and this may contribute to Canada’s smaller socioeconomic gradients in health outcome. If this were so, one would expect that studies focused on poorer individuals would reveal superior outcomes in Canada, whereas differences might be obscured in studies of entire populations. Indeed, the cancer studies by Gorey and colleagues and by Boyd suggest this may be the case. At the same time, it is possible that being able to pay for better care might lead to better outcomes in those with high incomes in the US versus Canada. Indeed one of the studies in cancer patients suggested this possibility. Unfortunately, these are the only studies that explore gradients in outcome across socioeconomic status.

Although the overall effect in the meta-analysis may be of some interest (a 5% reduction in relative risk of all-cause mortality in Canada versus the United States) the large variability in study results (heterogeneity $p < 0.0001$, I² = 94%, Figure 2) makes the pooled estimate difficult to interpret. Our primary reason for conducting the statistical analysis was, through meta-regression, to explore possible explanations of variability in results and provide adjusted estimates of relative risk. This exploration proved difficult to interpret. Although the multivariate model identified apparent sources of heterogeneity and provided adjusted estimates of relative risk (Table 5), the results were inconsistent between univariate and multivariate approaches, and both the univariable and multivariable models were very unstable. Thus, we do not feel confident that the statistical modeling has provided either a satisfactory explanation for the study-to-study variability in results or credible estimates of adjusted relative risk.

One group of patients fared consistently better in Canada than in the U.S., those with end-stage renal disease. Whether in hemodialysis programs, peritoneal dialysis, or after receipt of renal transplants, Canadians survive longer. The larger proportion of Americans than Canadians who begin dialysis treatment confounds interpretation of this finding. Perhaps Americans fare worse because a larger number of sicker patients enter dialysis. On the other hand, it may be that the larger proportion of Americans on dialysis reflects a lower threshold to start dialysis, and thus a less sick dialysis population. The limited available evidence suggests that thresholds for dialysis are in fact similar in the two countries. Furthermore, two high-quality studies that included extensive adjustment for comorbidity still show substantially lower mortality in Canadian patients, suggesting that imbalance in risk cannot explain superior Canadian outcomes.

Nevertheless, the weight of the evidence strongly suggests that Canadian end-stage renal patients truly have higher survival than those in the US. The explanation for this difference may lie in differences in the ownership of dialysis facilities. Virtually all Canadian dialysis care is not-for-profit, while for-profit providers deliver approximately 75% of American care for end-stage renal failure. A systematic review has shown a higher mortality in patients undergoing dialysis in for-profit centres.

Despite the limitations of the available studies, some robust conclusions are possible from our systematic review. These results are incompatible with the hypothesis that American patients receive consistently better care than Canadians. Americans are not, therefore, getting value for
money; the 89% higher per-capita expenditures on health care in the United States does not buy superior outcomes for the sick.

Canadian health care has many well-publicized limitations. Nevertheless, it produces health benefits similar, or perhaps superior, to those of the US health system, but at a much lower cost. Canada’s single-payer system for physician and hospital care yields large administrative efficiencies in comparison with the American multi-payer model. 60 Not-for-profit hospital funding results in appreciably lower payments to third-party payers in comparison to for-profit hospitals60 while achieving lower mortality rates.62 Policy debates and decisions regarding the direction of health care in both Canada and the United States should consider the results of our systematic review: Canada’s single-payer system, which relies on not-for-profit delivery, achieves health outcomes that are at least equal to those in the United States at two-thirds the cost.

Acknowledgements: We are grateful to Lauret Raftery and particularly to Denise Healey for their crucial role in organizing and administering all aspects of the study. We offer thanks to David Churchill, Elizabeth Gilpin, Kevin Gorey, Patti Groome, Timothy Juday, Penny Mohr, Les Roos, David Skarsgard, Brian Rowe, and Jack Tu, who provided clarification and additional information regarding their eligible studies, to Venessa Yu and Marco Venettilli for help with eligibility adjudication and data abstraction, and to Pam Leece for help with article blinding.

References


Published: April 19, 2007.

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Phantoms In The Snow: Canadians’ Use Of Health Care Services In The United States

Surprisingly few Canadians travel to the United States for health care, despite the persistence of the myth.

by Steven J. Katz, Karen Cardiff, Marina Pascali, Morris L. Barer, and Robert G. Evans

PROLOGUE: Over the past three decades, particularly during periods when the U.S. Congress has flirted with the enactment of national health insurance legislation, the provincial health insurance plans of Canada have been a subject of fascination to many Americans. What caught their attention was the system’s universal coverage; its lower costs; and its public, nonprofit administration. The pluralistic U.S. system, considerably more costly and innovative, stands in many ways in sharp contrast to its Canadian counterpart. What has remained a constant in the dialogue between the countries is that their respective systems have remained subjects of condemnation or praise, depending on one’s perspective.

Throughout the 1990s, opponents of the Canadian system gained considerable political traction in the United States by pointing to Canada’s methods of rationing, its facility shortages, and its waiting lists for certain services. These same opponents also argued that “refugees” of Canada’s single-payer system routinely came across the border seeking necessary medical care not available at home because of either lack of resources or prohibitively long queues.

This paper by Steven Katz and colleagues depicts this popular perception as more myth than reality, as the number of Canadians routinely coming across the border seeking health care appears to be relatively small, indeed infinitesimal when compared with the amount of care provided by their own system. Katz is an associate professor in the Departments of Medicine and Health Policy and Management at the University of Michigan. Karen Cardiff is a research associate at the University of British Columbia’s Centre for Health Services and Policy Research. Also at the University of British Columbia are Morris Barer, professor and director at the Centre for Health Services and Policy Research’s Department of Health Care and Epidemiology, and Robert Evans, professor at the Centre for Health Services and Policy Research’s Department of Economics. Marina Pascali is a Dallas-based health care consultant.
ABSTRACT: To examine the extent to which Canadian residents seek medical care across the border, we collected data about Canadians’ use of services from ambulatory care facilities and hospitals located in Michigan, New York State, and Washington State during 1994–1998. We also collected information from several Canadian sources, including the 1996 National Population Health Survey, the provincial Ministries of Health, and the Canadian Life and Health Insurance Association. Results from these sources do not support the widespread perception that Canadian residents seek care extensively in the United States. Indeed, the numbers found are so small as to be barely detectable relative to the use of care by Canadians at home.

For more than a decade anecdotal reports of waiting lists for elective procedures in Canada and of hordes of Canadian “Medicare refugees” crossing the border in search of medical care in the United States have provided emotive fuel for critics of the Canadian health care system from both sides of the border. American opponents of universal public coverage have argued that global constraints on capacity and funding force many Canadians to cross the border in search of services that are unavailable or in short supply in their own country. Some have gone so far as to suggest that the widening health care spending gap between Canada and the United States is partly the result of counting expenditures by Canadian Medicare refugees in the U.S. rather than the Canadian expenditure totals, although there is an extensive body of evidence showing that the sources of the spending gap lie elsewhere.

The Medicare refugee story is harnessed in Canada to promote the message that the Canadian health care system (known as Medicare) is chronically underfunded; the refugees are but one prominent symptom. The Canadian “underfundists” are, however, divided as to the appropriate response. The many who support the fundamental principles on which Canadian Medicare is built argue that Canadian waiting lists and care seeking in the United States demonstrate the need for new public funds to increase capacity and services. While “evidence” in the form of Medicare refugees might be new, this debate about the level of public funding has been part of the dialogue between Canadian providers and provincial payers throughout Canadian Medicare’s history.

But the putative refugees are also pawns in a debate driven by Canadian opponents of universal public funding, who wish to expand the role of private financing. This debate grew more intense during the 1990s as provincial payers increasingly constrained their health care budgets. News headlines suggesting that Canadians spend more than $1 billion annually south of the border have been cited to bolster the argument that private funding would reduce the pressure on the public system, thus reducing both public waiting lists and the flow of Canadians heading south for care. As a bonus, that $1 billion would stay at home.

Unfortunately, this persuasive image of Canadian refugees survives in a virtual vacuum of evidence. How many Canadians actually head to the United States to
seek medical care that they cannot obtain, or are unwilling to wait for, in Canada? What kinds of services do they receive? Where do they get these services, and how do they pay for them?

The paucity of answers to these questions is a result of large conceptual and empirical challenges facing researchers who attempt to fill in the gaps. Tens of thousands of Canadians enter the United States each year for a number of reasons unrelated to medical care seeking, such as holidays, business, education, or shopping. Any of these visitors might require medical care coincidentally while outside Canada. Thus, one must identify the context of Canadians’ medical care use in the United States to separate Medicare refugees from business travelers, “snowbirds,” and holiday seekers.

Paying for out-of-country medical care. As part of a more widespread strategy to reduce public health care spending during much of the past decade, some provincial governments have imposed tighter limits on their financial liability for residents’ medical care received in the United States. Payment limits for emergency hospitalizations in 2000 varied somewhat across provinces: Per diem payments ranged from as little as Can$75 for residents of British Columbia to as much as Can$570 in Manitoba and Prince Edward Island. Outpatient emergency services are generally reimbursed at provincial fee-schedule rates, which are far below fees in the United States. But several provinces such as Ontario and Manitoba have also limited payments for outpatient emergency visits to as little as Can$50–$100. These restrictions have motivated more Canadians to obtain insurance for health care expenses incurred while traveling for extended periods in the United States.

In selected circumstances, more formal arrangements have been negotiated between provincial payers and U.S. providers. Provinces have always reimbursed individuals, subject to preapproval and negotiated payments, who are required to travel to the United States to obtain highly specialized services not available in their home province. More recently, several Canadian provincial payers have established temporary contracts with U.S. providers for specific services available but subject to unacceptable delay in Canada.

Research objectives. In this study we attempt to quantify, across all sources of payment, the services provided to Canadians in U.S. regions located near the three most heavily populated Canadian provinces. Within these regions we examined data from two different types of sources: three states’ hospital discharge records and a survey of selected ambulatory care sites. In addition, we surveyed “America’s Best Hospitals” because they might serve as “magnets” for Canadians.

Analytic framework. Canadians might receive care in the United States for a number of reasons: (1) Services are available in Canada but often involve extensive
wait times (wait-listed services). Examples often include magnetic resonance imaging (MRI), radiation oncology treatment, and selected surgical procedures such as total knee replacements, cataract surgery, and coronary artery bypass surgery.

(2) Leading-edge technology services are unavailable in Canada. Examples include gamma knife radiation and proton beam therapy for some cranial tumors and specialized programs to treat severe brain injuries.

(3) Services are available in Canada, but U.S. health care centers are more conveniently located for some Canadians (proximal services). Examples include some residents of rural border regions in Saskatchewan, Manitoba, New Brunswick, or western Ontario seeking primary care in U.S. settings; and some residents of urban centers such as Thunder Bay, Ontario, seeking secondary or tertiary care south of the border.

(4) Services are provided to Canadian snowbirds, who live in the United States during the winter months, or to other periodic business and leisure travelers to the United States (coincidental services).

(5) Services are available in Canada but are perceived by the patient to be of higher quality in specific U.S. medical centers such as those listed as one of “America’s Best Hospitals” (magnet services).

Across these categories, the sources of funding for care vary considerably. For example, patients in the fourth category will generally have their costs covered by varying combinations of provincial health insurance and private insurance. Services in the second category, approved by a provincial plan, would be paid in full by that plan at rates negotiated with the U.S. care center. Some services in the first and third categories may be provided under a contract between the provincial Ministry of Health and the U.S. providers. Other services in these two categories, as well as those in the fifth, require direct out-of-pocket payment by Canadian patients.

**Sampling strategy and data collection.** *From the American side.* Based on this framework, we developed a multiprong sampling and data collection strategy. We conducted a telephone survey in the fall and winter of 1998–99 of all ambulatory care clinical facilities located in specific heavily populated U.S. urban corridors bordering Canada (Buffalo, Detroit, and Seattle) that offered services that might be less available in Canada. These services included diagnostic radiology, ambulatory surgery, ambulatory eye surgery, cancer evaluation and treatment, and mental health and substance abuse treatment. Facilities performing these procedures were identified using a variety of federal, provincial, state, and local sources including local health care consultants and provider groups, the U.S. Federated Ambulatory Surgery Association, the American Hospital Association, the American College of Surgeons, and the SMG Marketing Group.

We performed a structured telephone interview of one or more key informants within the institution (typically senior personnel in billing, marketing, or public relations). Information collected included the number of Canadians who visited...
the institution in the prior year and whether there were any obvious trends, the nature of referral there, type of services provided, and methods of payment.

To examine inpatient care provided to Canadians, we acquired statewide hospital discharge data for 1994–1998 from Michigan, New York State, and Washington State. To differentiate care-seeking admissions from those related to coincidental activity, we categorized admissions according to admission status (emergency/urgent versus elective) and principal discharge diagnosis. Also, we attempted to contact key informants at each of “America’s Best Hospitals” to inquire about the number of Canadians seen in both inpatient and outpatient settings.

From the Canadian side. We examined a number of different Canadian data sources to identify the extent of care seeking in the United States. We first analyzed data from the 1996–1997 National Population Health Survey (NPHS), a large survey representative of the Canadian noninstitutionalized population, that contained two questions pertaining to health care seeking in the United States. Respondents were asked: “In the past twelve months did you receive any health care services in the United States?” A positive response to the first question prompted a second one: “Did you go there primarily to get these services?”

An important potential source of Canadian patients for U.S. providers is formal contracts between them and provincial payers for specific diagnostic and treatment services. We identified the nature of these provincial contracts through personal contacts in the Ministries of Health of selected provinces. Finally, we spoke to the director of the Canadian Life and Health Insurance Association about the growth of out-of-country travelers’ emergency medical care insurance and insurance packages for services provided to Canadians in the United States on an elective basis. Unfortunately, one important source of Canadian data, provincial Ministry of Health expenditures specifically for out-of-country services, was insufficiently complete and comparable across provinces to be useable for this project. Remarkably, details such as patient demographics, types and dates of services, and location of U.S. providers are not being systematically tracked by most provincial Ministries of Health.

Study Findings, By Data Source

- U.S. ambulatory facilities survey. Almost 40 percent of the facilities we surveyed reported treating no Canadians, while an additional 40 percent had seen fewer than ten patients (Exhibit 1). Fifteen percent of respondent sites reported treating 10–25 Canadian patients, and only about 5 percent reported seeing more than 25 during the previous year (generally 25–75 patients; none reported more than 100). These findings were fairly consistent across the service categories. The overall response rate was 67 percent, and it varied across type of clinical facility from 56 percent for ambulatory surgery centers to 80 percent for cancer centers.

If we extrapolate these findings (assuming that nonrespondents show a pattern similar to that of respondents), these facilities in the three large metropolitan ar-
exams combined saw approximately 640 Canadian patients for diagnostic radiology services such as computed tomography (CT) scans or MRI and 270 patients for eye procedures such as cataract surgery over a one-year period. By comparison, the annual volume for CT scans and cataract extractions averaged about 80,000 and 25,000 procedures, respectively, in British Columbia alone during the mid-1990s.

In Quebec the annual volume during the same period for CT scans and MRI averaged 375,000 procedures and 44,000 procedures, respectively.

We also sought to examine Canadians’ use of mental health and substance abuse services in these same three U.S. catchment areas, because previous reports in the early 1990s suggested a cross-border flow of patients for these services. Because these regions have large networks of community mental health clinics, most of which do not regularly see patients from outside their community catchment area, we could not readily identify providers that would be the most likely targets for Canadian referrals. Therefore, we approached all such facilities that we could identify. Using the American Hospital Association’s guide to accredited freestanding substance abuse and mental health organizations, we identified thirty-two organizations in the Detroit area but only three in the Seattle area. We received responses to our telephone survey from twenty-three of the thirty-two organizations in Detroit (72 percent) and from all three of the Seattle sites. All but one reported seeing fewer than ten Canadian patients in the prior year, and none reported seeing more than twenty-five. In New York State the Office of Alcoholism and Substance Abuse collects data on treatment encounters at all centers in the state. From July 1997 through June 1998, 105,456 patients were seen, of which 246 were categorized as “other country.”

State hospital discharge data. Over the five-year observation period from 1994 to 1998, 2,031 patients identified as Canadians were admitted to hospitals in Michigan; 1,689 to hospitals in New York State; and 825 to hospitals in Washington

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**EXHIBIT 1**

Number Of Ambulatory Health Care Facilities Reporting Having Treated Adult Canadian Residents in Michigan, New York State, And Washington State In The Prior Year, By Number Of Canadians Seen, 1997–1998

<table>
<thead>
<tr>
<th>Facility type</th>
<th>None seen</th>
<th>Fewer than 10 seen</th>
<th>10–25 seen</th>
<th>More than 25 seen</th>
<th>Response rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diagnostic (n = 68)</td>
<td>22</td>
<td>36</td>
<td>7</td>
<td>3</td>
<td>70.8%</td>
</tr>
<tr>
<td>Ambulatory surgery (n = 28)</td>
<td>14</td>
<td>9</td>
<td>5</td>
<td>0</td>
<td>56.0</td>
</tr>
<tr>
<td>Ophthalmology (n = 16)</td>
<td>5</td>
<td>2</td>
<td>6</td>
<td>3</td>
<td>61.5</td>
</tr>
<tr>
<td>Cancer centers (n = 24)</td>
<td>11</td>
<td>9</td>
<td>3</td>
<td>1</td>
<td>80.0</td>
</tr>
<tr>
<td>Total (n = 136)</td>
<td>52</td>
<td>56</td>
<td>21</td>
<td>7</td>
<td>67.3</td>
</tr>
</tbody>
</table>

**SOURCE:** Information obtained from authors’ analysis of data obtained from telephone interviews with senior administrative staff in selected ambulatory health care facilities in Michigan, New York State, and Washington State in the fall and winter of 1998–99.

**NOTES:** Age 17 years and older. Number in parentheses indicates number of respondents.

Most facilities in this group reported 25–75 patients, and none reported more than 100 patients.
State. During the same period, annual inpatient admissions to hospitals within the bordering provinces of Ontario, Quebec, and British Columbia averaged about 1 million, 600,000, and 350,000, respectively. Thus, Canadian hospitalizations in the three U.S. states represented 2.3 per 1,000 total admissions in the three Canadian provinces. Furthermore, emergency/urgent admissions and admissions related to pregnancy and birth constituted about 80 percent of the stateside admissions. Elective admissions were a small proportion of total cases in all three states: 14 percent in Michigan; 20 percent in New York; and 17 percent in Washington.

Principal diagnostic categories. The distribution of diagnostic categories varied by the type of admission (emergency/urgent versus elective) and by state. Diseases of the circulatory system and injury and poisoning accounted for 37 percent of all cases in Michigan, 39 percent in New York State, and 50 percent in Washington State (50 percent, 23 percent, and 21 percent, respectively, of all cases within the elective admission category) (Exhibit 2). Within the circulatory system category, the most common principal discharge diagnoses in all three states were acute myocardial infarction, cerebrovascular disorder, heart failure, and conduction disorders and arrhythmias. In New York State, admissions associated with digestive disorders (such as cholelithiasis, gastroenteritis/colitis, and appendicitis) represented 13 percent of emergency/urgent cases. In Michigan, admissions associated with mental disorders (schizophrenic disorders, affective/depressive disorders, and substance abuse) represented 20 percent of emergency/urgent cases, and the

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**EXHIBIT 2**

Acute Care Hospital Discharges For Adult Canadian Residents In Three States, By State, Admission Type, And Principal Diagnostic Category, 1994–1998

<table>
<thead>
<tr>
<th>Principal diagnostic category</th>
<th>Type of admission</th>
<th>Michigan</th>
<th>New York State</th>
<th>Washington State</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Emergency/urgent</td>
<td>Elective</td>
<td>Emergency/urgent</td>
<td>Elective</td>
</tr>
<tr>
<td>Infectious and parasitic</td>
<td>2.2%</td>
<td>1.7%</td>
<td>2.1%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Neoplasms</td>
<td>2.6%</td>
<td>1.7%</td>
<td>3.1%</td>
<td>19.8%</td>
</tr>
<tr>
<td>Endocrine/metabolic</td>
<td>4.0%</td>
<td>2.0%</td>
<td>2.7%</td>
<td>1.5%</td>
</tr>
<tr>
<td>Mental disorders</td>
<td>20.4%</td>
<td>13.4%</td>
<td>6.5%</td>
<td>5.4%</td>
</tr>
<tr>
<td>Circulatory system</td>
<td>18.9%</td>
<td>26.4%</td>
<td>25.4%</td>
<td>15.9%</td>
</tr>
<tr>
<td>Respiratory system</td>
<td>8.1%</td>
<td>6.2%</td>
<td>7.9%</td>
<td>&lt;1.0%</td>
</tr>
<tr>
<td>Digestive system</td>
<td>7.1%</td>
<td>7.5%</td>
<td>13.0%</td>
<td>9.3%</td>
</tr>
<tr>
<td>Genitourinary system</td>
<td>2.7%</td>
<td>3.7%</td>
<td>4.3%</td>
<td>9.0%</td>
</tr>
<tr>
<td>Musculoskeletal system</td>
<td>2.7%</td>
<td>1.8%</td>
<td>2.0%</td>
<td>15.6%</td>
</tr>
<tr>
<td>Signs/symptoms</td>
<td>6.8%</td>
<td>7.6%</td>
<td>9.4%</td>
<td>2.1%</td>
</tr>
<tr>
<td>Injury/poisoning</td>
<td>19.9%</td>
<td>23.6%</td>
<td>18.1%</td>
<td>6.6%</td>
</tr>
<tr>
<td>Other</td>
<td>4.7%</td>
<td>4.4%</td>
<td>5.5%</td>
<td>14.4%</td>
</tr>
</tbody>
</table>

**SOURCE:** Discharge information based on authors’ analysis of data obtained from New York, Michigan, and Washington statewide acute care hospital data sets for 1994–1998.

**NOTE:** Age 17 years and older; pregnancy and birth category excluded.

*1 Urgent cases in the Michigan database did not have an admission type.

*2 Includes blood/blood-forming organs, nervous system, skin, congenital anomalies, and missing diagnostic information.
number of cases within this category was much greater than in either New York or Washington. However, we were unable to obtain further details from ministry or state sources. The remaining cases within the emergency/urgent category were distributed widely across principal diagnostic categories, and there was no consistent pattern across states. The distribution of elective cases across clinical categories was quite broad, with no consistent pattern across states.

**America’s Best Hospitals.** Response from these institutions was low (eleven of twenty) and somewhat fragmentary. The numbers of Canadian patients seen in the prior year were generally very low: Six hospitals reported fifteen or fewer elective inpatients or outpatients; four hospitals reported 20–60 patients, and one hospital reported nearly 600 patients (90 percent outpatients and many related to proton beam radiation therapy for cancer).

**Results from Canada.** Several sources of evidence from Canada reinforce the notion that Canadians seeking care in the United States were relatively rare during the study period. Only 90 of 18,000 respondents to the 1996 Canadian NPHS indicated that they had received health care in the United States during the previous twelve months, and only twenty indicated that they had gone to the United States expressly for the purpose of getting that care.13

*Formal contracts.* Periodic formal contracts between provincial payers and U.S. providers have a long history, but a few such contracts have received considerable attention on both sides of the border.14 Most notable have been contracts for the provision of radiation therapy for cancer patients, in response to backlogs created by shortages of radiation technicians. For example, Quebec contracted with three radiation centers in Vermont and Maine in October 1999 for treatment of patients with breast and prostate cancer; 1,030 patients were treated during the subsequent year.15 Ontario contracted with three health care organizations in Michigan, New York, and Ohio in March 1999 to provide treatment for patients with breast and prostate cancer, and 1,416 patients had been referred as of 31 October 2000.16 This is equivalent to approximately 8.5 percent of all prostate and breast cancer patients treated with radiation therapy in Ontario during the same time frame.

*Preapproval for stateside evaluation.* A relatively rare occurrence is preapproval for stateside evaluation of rare disorders or for experimental treatments not yet available in Canada. These treatments are often eventually adopted in Canada but diffuse less rapidly than in the United States. It is during that window between U.S. and Canadian adoption that occasional referral to the United States occurs. Examples of this include gamma knife therapy (a cobalt source is used to generate gamma rays that converge on a focal point) for treatment of cranial problems and brachytherapy (insertion of radioactive seed implants) for prostate cancer. Typically, a province the size of Quebec (approximately 7.3 million persons) may approve about 100 requests per year.17 Finally, in some provinces, contracts have been established between the provincial payer and U.S. primary care providers to provide primary care to residents of sparsely settled rural areas near the U.S. bor-
“The anecdotal reports of Medicare refugees from Canada are not the tip of a southbound iceberg but a few scattered cubes.”

In New Brunswick (a province of 750,000 persons) this accounted for about 2,000 visits between 1996 and 1998.

Private insurance policies. Limits imposed since the early 1990s on out-of-province payments by provincial payers have motivated more Canadians to obtain travelers’ insurance for emergency out-of-province medical care. For example, the number of individual policies sold to Canadians increased from 700,000 to 2,800,000 from 1992 to 1999. However, we found no evidence that there is a demand in Canada for, or a supply of, insurance policies for elective medical care services. Some private insurance firms have expressed interest in offering policies that would provide service in the United States if one had to wait more than thirty days on a Canadian waiting list; however, there has been no apparent demand for such policies to date.

Discussion

A tip without an iceberg? This study was undertaken to quantify the nature and extent of use by Canadians of medical services provided in the United States. It is frequently claimed, by critics of single-payer public health insurance on both sides of the border, that such use is large and that it reflects Canadian patients’ dissatisfaction with their inadequate health care system. All of the evidence we have, however, indicates that the anecdotal reports of Medicare refugees from Canada are not the tip of a southbound iceberg but a small number of scattered cubes. The cross-border flow of care-seeking patients appears to be very small.

Our telephone survey of likely U.S. providers of wait-listed services such as advanced imaging and eye procedures strongly suggested that very few Canadians sought care for these services south of the border. Relative to the large volume of these procedures provided to Canadians within adjacent provinces, the numbers are almost indetectable. Hospital administrative data from states bordering Canadian population centers reinforce this picture. State inpatient discharge data show that most Canadian admissions to these hospitals were unrelated to waiting time or to leading-edge-technology scenarios commonly associated with cross-border care-seeking arguments. The vast majority of services provided to Canadians were emergency or urgent care, presumably coincidental with travel to the United States for other purposes. They were clearly unrelated either to advanced technologies or to waiting times north of the border. This is consistent with the findings from our previous study in Ontario of provincial plan records of reimbursement for out-of-country use of care. Additional findings from the current study showed that a small amount of cross-border use was related to proximal services, primarily in rural or remote areas where provincial payers have made arrangements to reimburse nearby U.S. providers. Finally, information from a sam-
ple of “America’s Best Hospitals” revealed very few Canadians being seen for the magnet referral services they provide.

These findings from U.S. data are supported by responses to a large population-based health survey, the NPHS, in Canada undertaken during our study period (1996). As noted above, 0.5 percent of respondents indicated that they had received health care in the United States in the prior year, but only 0.11 percent (20 of 18,000 respondents) said that they had gone there for the purpose of obtaining any type of health care, whether or not covered by the public plans.

■ Was our net fine enough? This study might have underestimated the number of Canadians seeking care in the United States, for several possible reasons. First, a number of institutions did not respond to our survey. Those institutions might have seen larger numbers of Canadian patients than did the institutions that responded. However, persons contacted at nonresponding sites suggested to us that in fact they simply had nothing much to report. Second, we may simply have asked the wrong institutions and collected hospital data from the wrong states. It is possible that Canadians found their way to more remote sites not identified as magnet institutions. Indeed, we know that many Canadians receive care in Florida and California, for example. However, these are predominantly coincidental services. We could determine no logical reason why Medicare refugees would go further afield or to less prominent sites. Finally, it is possible that surveyed providers and administrative data did not recognize Canadians because they were using local addresses. This would be a limitation on any study of U.S. providers, for which the only possible remedy would be a costly individual patient survey. However, we have no information that would suggest that Canadians who seek care in the United States are likely to have U.S. addresses.

On the Canadian side, the surprisingly poor quality of some of the provincial data leaves open the possibility that some patients heading south for contracted services reimbursed by the public plans may have been missed if they were cared for in facilities that did not participate in our stateside survey. However, earlier analysis of Ontario Health Insurance Plan (OHIP) data found that most spending for medical and hospital services received by Canadians in the United States during the early 1990s was related to the “coincidental” basic and emergency health care services typically used by Canadians traveling or temporarily residing in the United States. Although the possibility of underestimating cross-border care seeking can never be entirely eliminated, we do not believe that its magnitude would be sufficient to challenge our conclusions.

■ Why is cross-border care seeking so low? Our results should probably not, on reflection, be surprising. Prices for U.S. health care services are extraordinarily high, compared with those in all other countries, and this financial barrier is magnified by the extraordinary strength of the U.S. dollar. Private insurance for elective services, being subject to very strong adverse selection, is, not surprisingly, nonexistent. Discussions with key informants in the Canadian private insurance industry
indicated that carriers correspondingly confine themselves to the coincidental services market. Furthermore, provincial governments have been lowering their rates of reimbursement and tightening preapproval criteria for cross-border care. In the absence of either source of health insurance coverage, it would be somewhat surprising if large numbers of Canadians were choosing to head south and pay out of pocket for care. In fact, one recent survey found that Canadians were not even prepared to pay out of pocket in their own country to reduce their own waits.21

What about Canadian contracts with U.S. providers? The numbers of true medical refugees—Canadians coming south with their own money to purchase U.S. health care—appear to be handfuls rather than hordes. But there are still the highly visible examples of Canadian provincial governments contracting with U.S. providers for specific services that are unavailable or in short supply in Canada. While these contracts have received extensive press coverage on both sides of the border, they have largely been short-term arrangements for a limited number of procedures for selected patients experiencing delays in several Canadian provinces.22 Do such purchases indicate that the Canadian health care system is inadequate to meet the needs of its citizens and is critically dependent on access to the better-resourced U.S. system?

Well, yes and no. In the case of highly specialized and leading-edge or experimental technologies, this contracting policy is obviously sensible. It would be impossible for a country one-tenth the size of the United States (much less individual provinces) to try to maintain the capability to offer every conceivable form of care, no matter how advanced or unusual. Purchasing such services from a small number of U.S. tertiary centers that offer them, as indeed many U.S. payers do, is the only reasonable option. As and if the technology matures and its range of applicability expands, it may be disseminated to Canadian centers.

Cross-border contracting for services to augment existing Canadian capacity for commonly used technologies raises somewhat different issues. An important cost containment strategy in Canada has been constraint on the capacity of diagnostic- and treatment-related technology. Tight capacity is particularly vulnerable to unexpected surges in demand for care or a sudden loss of supply attributable to, for example, a strike by critical support personnel. The consequence is increased waiting times that at some point may be perceived as excessive by providers, patients, or the public. Selective contracting with U.S. providers has been a response to these concerns.

A case for long-term contracts. As long as Canadian capacity remains tight for selected medical technologies while at the same time the United States continues to generate excess capacity, cross-border contracting appears to be a perfectly sensible approach to dealing with patient queues. It also offers a way of delaying capital investments in response to shifts in patterns of clinical practice until these have had time to establish themselves. As a purely economically motivated “make or buy” decision, it might even make sense to enter into long-term contracts for the
purchase of services in the United States, as long as these contracts were available at prices above U.S. marginal cost but below the Canadian average unit cost. Such contracts would reflect not a “failure” of the Canadian system but simply provincial governments’ behavior as a “prudent purchaser,” taking advantage of the opportunity to “buy” more cheaply than it could “make.” Americans would also benefit. As long as their health care system is organized to generate excess capacity, they are clearly better off if the excess capacity is sold to Canadians than if it is left to sit idle or used to generate unnecessary domestic servicing.

The case against. But there are other important considerations that would be raised by a long-term Canadian policy of importing health care services from the United States, even at favorable prices. First, patients may resist absorbing the monetary and nonmonetary costs of travel to the United States. Second, Canadian purchasers of U.S. services may be most vulnerable to loss of a contract or increased prices if U.S. domestic demand surges or supply decreases. Third, solving the problem of Canadian waiting lists by sending a regular wave of patients south would imply a major loss of income for Canadian providers. For all three reasons, this policy would be largely unacceptable to providers and patients, and, as a result, politicians would likely face an ongoing chorus of accusations that the system fails to meet the medical needs of their constituency.

Phantoms in the snow. Despite the evidence presented in our study, the Canadian border-crossing claims will probably persist. The tension between payers and providers is real, inevitable, and permanent, and claims that serve the interests of either party will continue to be independent of the evidentiary base. Debates over health policy furnish a number of examples of these “zombies”—ideas that, on logic or evidence, are intellectually dead—that can never be laid to rest because they are useful to some powerful interests. The phantom hordes of Canadian medical refugees are likely to remain among them.
Use Of Services


12. Canadian Institute for Health Information, “Hospital Deaths and Discharges” (Unpublished spreadsheet, 7 December 2000); and Quebec Health and Social Services, Hospital Deaths and Discharges, Med Echo (Quebec: Quebec Health and Social Services, 1999).

13. Even this may overestimate the number of Canadians seeking care of a type covered by Canadian Medicare, as respondents might have been reporting purchases of dental services, drugs, eyeglasses, or other forms of health goods and services not covered under provincial plans.


15. Interview with provincial medical consultant, Province of Quebec, 13 October 2000.

16. Interview with coordinator, Referral Office, Ontario Cancer Care, 27 November 2000.


18. Director, Canadian Life and Health Insurance Association, personal communication, 24 November 2000.


20. Ibid.


Health Care Abroad: Taiwan

By Anne Underwood

William Hsiao is a professor of economics at the Harvard School of Public Health and co-author of the 2004 book “Getting Health Reform Right.” He served as a health care adviser to the Taiwan government in the 1990s, when officials decided to reform that country’s health care system and to introduce universal coverage. He spoke with Anne Underwood, a freelance writer.

Q. Taiwan instituted universal insurance in 1995. What was the health care system like before?
A. Only a portion of the people were insured, including civil servants, employees of large firms and farmers. The military had its own system of coverage. But 45 percent of the population did not have insurance, and they faced financial barriers to access to health care. President Lee Teng-hui felt strongly that he wanted to do something concrete and visible for all the citizens. He thought of introducing national health insurance to touch the lives of all the people. There was a sense in Taiwan that health care is needed by everyone and a country has to assure everyone equal access.

Q. How did you become involved in the health care reform process?
A. The government initially appointed four Taiwanese professors to lead a task force of technical experts. But the four professors all had different ideas. It was like a wagon drawn by four horses, with each going in a different direction and nobody driving. After a year of this, government officials realized there was a problem. In addition, they wanted someone who understood health systems and health care abroad and what lessons other countries could offer to Taiwan. The domestic experts did not have much international experience.

I was invited to a three-day workshop, where they tested me. At the end, I was put in charge of the task force of four professors and 16 other technical experts. It turned out to be a big advantage that I’m not Taiwanese and had no aspirations of getting a job in Taiwan. The domestic experts did not have much international experience.

Q. What was your assignment as head of this task force?
A. We had to design a national health insurance plan for Taiwan, based on international experience. Government officials wanted to understand how other advanced countries fund and organize health care and learn from their successes and failures, so I made a study of the systems in six high-income countries — the United States, the U.K., Germany, France, Canada, Singapore and Japan.

Q. And what was your conclusion at the end of this study?
A. We adopted a single-payer system along the Canadian lines. I did not invent it. I’m just in the transfer-of-knowledge business.

Q. Why did you choose the Canadian model?
A. Canada has a single-payer system with universal insurance coverage. It offers people free choice of doctors and hospitals, and it has competition on the delivery side between public and private hospitals. The quality of health services is very high, and people were very satisfied with the system from the 1980s through the mid-1990s.

Unfortunately, in the early-to-mid 1990s, Canada went through a severe recession for four or five years. The budget became very tight. The government underfunded national health insurance, which led to long waiting lines for elective surgery, MRIs and so forth. But when Canada adequately financed its N.H.I., it was a very good system.

Q. In Taiwan, can people choose any doctor or hospital they want?
A. Yes, any provider. Americans talk about choice. But in fact, insurance plans in this country restrict what providers you can go to. Canada gives its citizens more choice of providers. So does Germany. So does England. So does Taiwan.

Q. How comprehensive is the coverage?
A. It covers prevention, primary care and hospitalization, among other things.

Q. I’ve read that it also covers Chinese massage, acupuncture, traditional herbal medicine, mental health care, dental, vision and long-term care.
A. Yes, these services are covered. We tried to design a benefit package that would give people what they value. For many Taiwanese, that includes traditional Chinese medicine. Though Chinese medicine is not 100 percent proven to be medically effective, people believe in it. And some therapies have been proven effective. For example, when acupuncture is given in certain spots, it stimulates the brain to release opiates.

Q. The Taiwanese system also covers home care.
A. You need home care by visiting nurses for people who are chronically ill or bedridden. It’s not rocket science to recognize this. Some people argue that the patients should
pay for home care themselves. But if people have to pay out of pocket, they might not ask for visiting nurse services and their illnesses may get much worse. Then they will need to be hospitalized.

Q. Is the system very expensive?
A. Expensive is a relative term. Taiwan spends 6 percent of G.D.P. on health care, compared to 16 percent in the United States.

Q. How much do people have to pay?
A. If you're employed, your employer pays 60 percent of your premium. The employee pays 30 percent, and the government subsidizes 10 percent. The government fully subsidizes the premiums for the poor and gives partial subsidies to veterans, the self-employed and farmers.

Q. How much is the typical premium?
A. The total insurance premium for employed workers is 4.6 percent of wages. That's much lower than in the United States, where the average is between 12 and 20 percent of wages for those who are covered by their employers.

Q. Are there co-pays, too?
A. Yes. The task force felt that service should not be totally free or else people might waste services. For example, we studied what happened in Taiwan when some insurance policies gave prescription drugs free to everyone. One-third of the drugs dispensed were never taken but thrown away. You can imagine, if you have free office visits, some people will say, “I have this little ache. I'll go see the doctor because it’s free.” We wanted to moderate this waste.

Q. How high are co-pays?
A. The charge is $2 for a visit to a clinic and about $4 to a hospital outpatient department. The co-pay for hospitalization is now 10 percent for the first 30 days and 20 percent for the days beyond 30 days. For prescriptions, it’s 20 percent of the cost of the drug, but capped at $6 for each prescription. Taiwan also sets a ceiling on the total co-pays, so patients won’t face bankruptcy.

Q. How long did it take to implement this program?
A. Less than a year. Mr. Lee pushed through the legislation in four to five months, because an election was coming. Then he asked for the new system to be implemented six months after that — and they did it.

Q. What percent of the population is now insured?
A. Within the first year, Taiwan managed to insure 95 percent of the population. That increased by another percent or so each year, until they reached 98 percent. They had trouble with that last 2 percent, because some were living overseas and others were homeless. The government literally sent people to find the homeless under bridges and enroll them. Now they have close to 99 percent enrollment.

Q. Has this translated into better life expectancy or lower complication rates from major diseases?
A. There is evidence of positive health results for select diseases, like cardiovascular disease and kidney failure. But overall, it’s really difficult to say that national health insurance has improved the aggregate health status, because mortality and life expectancy are crude measurements, not precise enough to pick up the impact of more health care. That said, life expectancy is improving, and mortality is dropping. And everyone now has access to good health care.

Q. What does the system do particularly well?
A. In addition to covering everyone, it has a uniform system of electronic health records. Every patient has a Smart Card. When you go in for services, the physician puts the card into his computer. You give him the code to access your records, which are all stored on the card — what medications you’ve taken, what tests, along with the results, the last time you saw another physician. With a single, unified electronic system, it improves treatment and it also vastly reduces claims processing. Hospitals and doctors get paid in a week or two. It’s a paperless system. That’s why it keeps administrative costs down to 2.3 percent of the total premium. In the United States, it’s more than 10 percent.

Taiwan was also able to control health-expenditure increases very well in the early years. Unfortunately, now that the government budget is tight, it is overdoing it.

Q. What are the system’s weaknesses?
A. In the legislative process, compromises had to be made. First, the president yielded on payment reform, so Taiwan kept its fee-for-service payment system. Unfortunately, that encourages doctors and hospitals to give more treatment in order to boost their income.

Second, the Taiwanese system doesn’t have a systematic way to monitor and improve quality of care.

Third, in the legislative process, they rejected a provision to adjust the premium automatically when the national health system depletes its reserves. In every country, health care costs are increasing faster than wages. When that happens, the premium has to go up. But that provision wasn’t incorporated into the law. As a result, the system is running a deficit. National health insurance tries to cut the fees for hospital and physician services. But eventually these fee reductions will adversely affect the quality of health care.

Q. What’s the most important lesson that Americans can learn from the Taiwanese example?
A. You can have universal coverage and good quality health care while still managing to control costs. But you have to have a single-payer system to do it.

Interview

Lessons From Taiwan’s Universal National Health Insurance: A Conversation With Taiwan’s Health Minister Ching-Chuan Yeh

Fourteen years of experience with national health insurance have produced important results that other countries might find of interest.

by Tsung-Mei Cheng

ABSTRACT: Taiwan established universal national health insurance in 1995, bringing overnight the then 41 percent uninsured under the umbrella of national health insurance (NHI). Financial worry due to illnesses is a thing of the past in Taiwan. As a result of successful cost containment, national health spending grew from the pre-NHI three-year average of 4.79 percent of gross domestic product (GDP) to only 6.1 percent today. Tsung-Mei Cheng explores with Taiwan’s health minister Ching-Chuan Yeh, M.D., the ethical principles that underlie the NHI and how the NHI operates: financing, risk pooling, cost containment, provider payment, and the delivery system. Challenges for the future are discussed. [Health Affairs 28, no. 4 (2009): 1035–1044; 10.1377/hlthaff.28.4.1035]

Equity, Cost Containment, And Public Satisfaction

Tsung-Mei Cheng: Minister Yeh, you were appointed in 1995 as the founding CEO of the Bureau of National Health Insurance [BNHI], the government agency that runs the NHI [National Health Insurance]. Now, as minister of health, you supervise that agency. In the intervening fourteen years Taiwan’s NHI has gained considerable international recognition. What do you see as its major achievements?

Ching-Chuan Yeh: First, we have the most egalitarian health system in the industrialized world. Access to basic health care is an inalienable right in our constitution. Residents living in remote mountainous areas and offshore islands, and the poor, get pretty much the same access and health care as the children of Presidents Chen and Ma—everyone in Taiwan receives the same care in terms of access and service. Also, our cost is much lower compared to most OECD [Organization for Economic Cooperation and Development] countries.

Cheng: National health spending in Taiwan rose from 4.79 percent of GDP [gross domestic product] prior to the NHI’s establishment (average for 1992–1994) to only 6.1 percent in 2007. The comparable increase in the U.S. was from 13.5 percent (average for 1992–1994) to 16.6 percent of GDP in 2007. How did Taiwan achieve such remarkable cost containment?

Minister Yeh: Basically, we should say it is thanks to the efficient services we have, including very low administrative cost, which was only 1.5 percent of total NHI spending in 2008. Having a single-payer system is the main rea-
son for our efficient services and also the low prices for health care we can achieve.

Cheng: Taiwan’s public has been very satisfied with the NHI—in the 70 percent range since inception and 79 percent as of July 2008. The NHI is said to have been the most successful public policy in Taiwan. What explains this high public satisfaction?

Minister Yeh: One reason for the high satisfaction is that NHI’s premium and copayment rates are very low, yet everyone can have “all you can eat,” so to speak. Easy accessibility is another reason. Anytime you wish to see a doctor, you can. For example, if you decide to see an ophthalmologist, within ten minutes you can find one to see, even in the evenings.

Competition Through Patient Satisfaction, Not Price

Cheng: NHI benefits are indeed broad: inpatient and outpatient care, drugs, dental care, vision care, traditional Chinese medicine, and kidney dialysis. You can afford all this with spending of only 6.1 percent of GDP, of which the NHI itself is roughly two-thirds, or 4 percent of GDP. You mentioned your system can achieve low prices. What mechanism is used?

Minister Yeh: We achieve low prices through a uniform national fee schedule the government sets. We can also modulate price increases, or even freeze prices. So doctors and hospitals must achieve very high productivity to survive. But critics say at such low fees we must beget problems with our service quality. Of course we wish to raise the premium rate from the current 4.55 to 5.3 percent of salary or wage so we can enhance quality—for example, increase the hospitals’ nursing staffs. But political resistance to any premium rate increase is so great that if you could get such a bill passed, you could win all kinds of elections!

Cheng: Has complete freedom of choice of providers enjoyed by Taiwan’s public also provided effective competition among providers?

Minister Yeh: Absolutely! Providers in Taiwan must be mindful of patients’ demands to stay competitive, and they do compete for patients. In Taiwan, patients can carry the cash represented by their insurance cards to any provider of care, not just to a smaller network of providers, as under U.S. private insurance. It is quality competition, not price competition; but it certainly is competition.

Cheng: Taiwan does not have American-style private health insurance. Do you see it coming someday either as an escape valve for the rich in Taiwan (as is the case in Germany and the U.K.) or as a way to reduce the government’s burden by shifting cost to the private sector through private health insurance, as in Australia?

Minister Yeh: As long as there is the NHI, there will be no private health insurance that will provide benefits that are identical to those provided by the NHI. Taiwan has only private supplemental indemnity health insurance; it covers specific diseases such as cancer or disasters like injuries from traffic accidents. It is a cash benefit, and the money is used to help pay for copayments, hire special nurses, and buy nutritional foods—not for genuine inpatient medical services, which are covered by the NHI.

Health Spending And Technology Adoption

Cheng: Published government statistics show that the NHI’s expenditures have outpaced its revenues by an average of 2 percent since 1998, except for the brief period 2002–2004. Then there was a balanced budget because in 2002 the government raised the premium rate by 7 percent, from 4.25 percent to 4.55 percent of wage and salary. How does the government handle this financial imbalance?

Minister Yeh: As you pointed out, the NHI raised the premium rate only once in its fourteen-year history: from 4.25 percent to 4.55 percent in 2002. This is not a good thing. In the interim, we started a tobacco tax that gives us...
an additional 4 percent of the total NHI revenue. We are thinking of further increasing the tobacco tax to yield yet another 2.5 percent of revenue for the NHI. In the end, 72–75 percent of the NHI’s total annual revenue will have come from the tobacco tax. This is the easy part.

The bad part is that there has been a continuous shift toward increases in copayments, coinsurance, and extra charges. Extra charges have good and bad aspects: extra-charging the rich to cross-subsidize the poor is right—for example, charging more for private rooms. But increases in copayments by everyone are very bad, because they can be burdensome to poor people. Although we do make generous exemptions from copayments such as issuing waivers for cancer and serious illnesses, general household out-of-pocket spending has been increasing. I have trouble accepting that. Someday we will need fundamental financing reform. In Taiwan, nonpayroll income, including capital gains, accounts for more than 30 percent of total national income, and yet this large income segment is not subject to the NHI premium assessment. The NHI’s premium collection is based on payroll income alone. So we are thinking of adding nonpayroll income to the premium base for the NHI as an additional source of funding.

Cheng: Is it not quite unique in the world that a health system such as your NHI has had only one premium rate increase in its fourteen-year history? Why has Taiwan’s public been so stubbornly unwilling to allow premium rate increases, which the NHI Law permits? Do they have a point by arguing that there is too much waste in the system and the government should first deal with that before asking the public to pay more?

Minister Yeh: Of course they have a point. But as with any proposed increases in fees for public utilities like bus and taxi fares, electricity, etc., the public always hides behind the argument “better service and eliminate waste before you ask us to pay more.” We need better public communication to convince the public and tell them, “You can’t say we will increase policemen’s pay only when all crimes in the country have been eliminated—when there are no thieves, no violence.” We need to tell the public they have only two choices: namely, to pay a little more and get good service, or else be prepared that the quality and accessibility of services will deteriorate or be reduced.

Cheng: Taiwan spends roughly 25 percent of the NHI budget on drugs. Given that your overall spending is low, are new drugs and devices introduced in a timely fashion? How do you reimburse the very expensive drugs? Multinational pharmaceutical companies often allege that prices paid by the NHI are too low, and they are unhappy about it.

Minister Yeh: The NHI introduces forty to fifty new drugs every year. So spending for new drugs per total NHI expenditure continues to rise. About one percentage point of the 3–5 percent annual growth in spending of the NHI is for new drugs.

Cheng: One hears often, nevertheless, that various new drugs are not covered by the NHI because they are expensive. Is this true?

Minister Yeh: There are some delays in coverage for new drugs. Our adoption of new technology, including drugs, is often delayed by two years and at times five years compared to the U.S., but not longer than that. In terms of target therapy drugs for cancer, the NHI covers thirteen of the total of seventeen drugs currently available in the world market.

Cheng: How about the wait for the adoption of high-price biologics?

Minister Yeh: The NHI does cover many of them, but we place certain restrictions on their use. The BNHI will pay subject to certain conditions. Admittedly, these conditions sometimes are too strict and physicians strongly oppose them. For example, there is now a debate over cholesterol-lowering drugs in the statin
family like Lipitor, which is very expensive. So the BNHI has set a limit on their use, such as that the patient's cholesterol must be above a certain level, or other ways to reduce the level, such as that lifestyle changes have failed.

**Financing And Protection Of Disadvantaged**

**Cheng:** Let us now turn to the financing of the NHI. Why did Taiwan adopt the premium model, rather than the general tax model used in, say, Canada's health system and the British National Health Service [NHS]?

**Minister Yeh:** Three reasons: first, previously existing social insurance schemes such as Labor Insurance, Government Employees Insurance, and Farmers Insurance were all premium based, so the public was familiar with that model. Second, the general tax model would not work in Taiwan, because the government's ability to levy taxes is poor—total tax revenue as a percent of GDP is currently 13 percent, down from a historical high of 18 percent. Finally, the Department of Health would have to compete for government budget allocation against other government departments such as defense, finance, education, and transportation; this may lead to unstable and insufficient funding for the NHI because the government's priorities may shift.

**Cheng:** What happens to those individuals or households who cannot afford the NHI premium?

**Minister Yeh:** The government pays 100 percent of the premium for low-income households—currently 1 percent of the population—and extends interest-free loans to the near-poor—2 percent of the population. I had proposed, in 2008, raising the tobacco tax from the current NT$10 per pack to NT$20 per pack and using part of the additional revenue as a subsidy for the near-poor.\(^1\)

**Cheng:** You mentioned that raising the tobacco tax is relatively easy in Taiwan.

**Minister Yeh:** Yes, because the antismoking campaign has been very successful in Taiwan, and the tobacco tax is regarded as a sin tax, so there is not much opposition.

**Cheng:** And did your proposal to increase the tobacco tax pass the legislature?

**Minister Yeh:** Yes. It did pass, on January 23 of 2009. The new tax will be enacted June 1 of 2009. This will give the NHI an additional 4 percent of its total annual revenue, or NT$16 billion (US$485.9 million). I intend to use the new money for a variety of purposes. Namely, roughly a little less than half (NT$7.2 billion, or US$218.2 million) will go to NHI general revenue; NT$2.16 billion (US$65.3 million) for cancer research, prevention, and screening; NT$1.44 billion (US$44.3 million) for subsidies to the near-poor to ensure their coverage; and the rest to health care quality improvement, including health care in remote and mountainous areas and offshore islands, care for rare diseases, suicide prevention, and narcotics addiction.

**Cheng:** I understand that, remarkably, over 98 percent of Taiwanese pay their premiums on time. How do you get such good compliance from the public?

**Minister Yeh:** The NHI's total premium revenue comes from three sources: government (25 percent), which will not default on premiums; employers (37 percent); and the public (38 percent). The BNHI is good at collecting premiums from the public—better than Taiwan's National Taxation Bureau. When people don't pay premiums on time, the BNHI telephones or sends notices to them immediately. Our citizens are very law-abiding, so compliance is very high. The "bad debt rate" is just around 1.5 percent. In the end, more than 98.5 percent of the premium is collected.

**Provider Payment: FFS, Global Budgets, P4P, And Disease Management**

**Cheng:** There is a consensus among health policy experts around the world that FFS [fee-for-service] is about the worst way to pay doctors, and yet it is also the most widespread method actually used around the world. Does Taiwan have plans to reform its FFS-based payment system?

**Minister Yeh:** We currently have FFS under a system of global budgets. Ideally, under global
budgets, FFS should be done away with. This is the goal. But it is very difficult to implement such changes. In reality, under our global budget system, fifty-three surgical procedures are under case payment (like your DRGs [diagnosis-related groups])—for example, the case-based global fee for total hip replacement is NT$124,754 (US$3,789).

Cheng: By “case payment” do you mean “bundled payment”—that is, a global fee for a fixed procedure? In the U.S. there is much talk of bundling the services going into the treatment of standard cases—for example, CABG [coronary artery bypass grafting]—and paying one global fee for the entire bundle of inpatient and ambulatory services, giving providers an incentive to practice cost-effective medicine across the entire spectrum of delivery settings. But for that to happen, we must have patient-centered, clinically integrated care, which is still the exception in the U.S. Are you aspiring to that kind of system reform in Taiwan as well?

Minister Yeh: Our “case payment” is for inpatient services only and bundles fees for hospital and hospital-based physician services. It does not include fees for ambulatory services. We have developed our own version of DRGs but have not implemented them except for the fifty-three mentioned earlier.

Cheng: You mentioned that Taiwan has used sectoral global budgets to control health spending successfully. Health policy experts generally believe that such an approach can be useful in the short run, to break an upward trend in health spending, but that over the longer run this is a heavy-handed approach that inhibits a flexible adaptation of health care delivery to changes in technology—for example, shifts from inpatient to outpatient care made possible by new technology. Does Taiwan contemplate staying with the global budget approach forever?

Minister Yeh: We are aware that some scholars continue to challenge the global budget approach. The global budget approach is not as bad as people imagine. We have five sectoral global budgets under one big overall global budget for the whole system: hospital, primary care, dental, traditional Chinese medicine, and kidney dialysis. Our hospital global budget includes hospital outpatient ambulatory care, and that part is almost 50 percent of the total cost of any hospital. So far this system has worked, even if not perfectly. Shifting patients from inpatient to outpatient care is effortless because both are under the same hospital global budget.

Cheng: Are there disease management programs [DMPs] in Taiwan? What payment schemes do you use for DMPs—pay-for-performance [P4P], or risk-adjusted capitation as in Germany and the Netherlands?

Minister Yeh: We have five P4P programs using the disease management approach—diabetes, breast cancer, asthma, tuberculosis, and hypertension; other programs are based on fee-for-service or case payment. Diabetes management and tuberculosis control are relatively successful because there are good indicators to measure outcomes by, for example, HbA1c for diabetes. Breast cancer P4P is considered so-so up to this point. There is no evidence as yet that P4P for asthma has made a big impact. Overall, however, the budget impact of these initiatives is still small. We need to take a much more aggressive approach to disease management. For that we need to overhaul our payment system, which is still largely based on fee-for-service payment to providers.

Health Information Technology: Toward A High-Performing System

Cheng: Everywhere around the world, electronic health information technology (IT) is now viewed as a necessary though not sufficient component of high-performing health systems. Denmark’s health IT is ranked number one among OECD countries, yet according to a Danish scholar, Taiwan’s health IT surpasses Denmark’s. What do you see as the most successful aspects of Taiwan’s health IT?
Minister Yeh: There are two aspects to the NHI's health IT: one is the IC Card (Smart Card), a credit card–size card, which every insured has for accessing care, and the other is the wider IT system of which the IC Card is an important component. As all providers in Taiwan submit claims electronically based on the electronic patient records they keep, we can do very detailed profiling of both patients and providers. All the data in our health IT system can be linked, so that we can know anything we choose to know about patients, their utilization of health care, providers, and so on, quickly—usually within a day of service. We have complete profiles on utilization by patients' income level, geographic location, visit number, hospitalization number, etc. Thus, we are able to monitor our health system almost in real time.

Cheng: With so rich a database, do you do a lot of operations research, also called “health services research”?

Minister Yeh: This is where we fall short of our potential. We have so much valuable data, but there are not enough people asking the right questions as a basis for decision making.

Cheng: Does this have to do with your extremely low administrative budget: 1.5 percent in 2007?

Minister Yeh: Yes, this has to do with the budget. We have made our data, scrambled to protect patient privacy, available to academic researchers. Unfortunately, we do not have enough R&D [research and development] funding to incent researchers to ask the right questions; you need to have people doing strategic thinking. It is like in a war; winning or losing does not depend so much on the number of troops. Good commanders with good systems of information and operations staff are what are needed. We could do better here.

Cheng: Do you have an electronic medical record [EMR] or a personal electronic health record [PEHR]?

Minister Yeh: Not yet. At present, most hospitals have EMRs within their own walls, but interhospital communication still awaits standardization of nomenclature. But once we decide to develop a cross-system EMR, we can accomplish it very quickly, because as a single insurer, we can have one single standard. We can go to a complete e-record in five years.

We are in the process of building the Picture Archiving and Communication System [PACS]—imaging switching center. I am aiming for its completion by the end of 2010. I expect to have all imaging done in the NHI electronically transferable within the entire Taiwan health system.

Cheng: What about a PEHR that links patients electronically to the health system? Does not the current NHI IC Card already feature important components of a PEHR, such as record of illnesses, diagnosis, prescriptions, allergies, etc.?

Minister Yeh: Yes, but I want our people to build quickly a more refined PEHR, one superior to the NHI IC Card we now use. I know it will be difficult because a more refined PEHR will first require us to upgrade our current IC Card to the second-generation IC Card. The present IC Card only has 36k of memory, which is not enough.

Preventive Care And Quality Of Care

Cheng: Many physician-leaders in Taiwan have voiced their concern about inadequate efforts at prevention, citing the time pressure on doctors. I have read that where the government did invest in prevention, as in cervical cancer prevention by Pap smear screening, patient outcomes have vastly improved. Is that a general finding?

Minister Yeh: Yes, it is. It is also true that at present, prevention is not as well done as it should be. We do a pretty good job with antismoking campaigns, but that is a different kind of prevention than the kind doctors typically think of. The current screening rate for breast cancer, ranging between 5 and 10 percent, is too low. Screening rates for oral cancer—another major cancer in Taiwan because of betel nut chewing—and colon cancer are also quite inadequate. We have to invest more in these activities.

Cheng: Do you believe that inadequate screening is in fact at least partly responsible for the
significant gap in five-year survival after diagnosis for colon, lung, and breast cancer in Taiwan compared to high-spending countries like the U.S., Germany, and Switzerland? For example, breast cancer five-year survival in Taiwan is 67.7 percent, compared to 87.6 percent in the U.S. and 73.3 percent in a fellow single-payer country, the U.K., which spends more on health care. I would imagine that as minister of health, you have these outcomes data in your sight. Are there any concrete plans to match the higher survival rates elsewhere?

Minister Yeh: Of course! To address this problem, I have designated a special sum from the tobacco tax revenue solely for screening of three major cancers in Taiwan: colon, oral, and breast. It would be great if within ten years the breast cancer mortality could be cut in half, just like we did with cervical cancer. The cervical cancer mortality in Taiwan was cut in half in the ten years from 1995 to 2005, even though its screening rate is not that high: 33 percent a year, with a three-year cumulative screening rate of only 60 percent. I am also optimistic about reductions in oral cancer mortality, because screening for it is easy. So our biggest problem is that we did not spend enough money on preventive screening.

Cheng: I have been told that once a cancer diagnosis is established in a patient in Taiwan, treatment (such as surgery) is done well and outcomes are excellent. Do you agree?

Minister Yeh: You put your finger on an important aspect of cancer care in Taiwan. Stage-specific five-year cancer survival rates in Taiwan are similar to those in high-spending countries. Although they are lower than in the U.S., they are better than in the U.K. What this shows is that our staging is too late, not that our treatment is inferior. The problem is, once again, that we do not have comprehensive and early cancer screening programs. This is due to inadequate funding for screening in the past few years.

When you look at survival after organ transplantation, we sometimes do better than the U.S. For example, because we do more liver transplantation here, we have much better outcomes than does the U.S. Kidney transplantation results are also comparable to the U.S. But since we rarely do lung or heart-lung transplants, our outcomes are much worse.

Integrated Care And Care Coordination

Cheng: In all of the countries I have recently visited, there has been for several decades now a yearning among policy analysts for “integrated care.” Unfortunately, the providers of health care responded to that yearning merely by building vertically integrated health systems that include primary care outpatient practices, hospitals, pharmacies, home care agencies, nursing homes, and hospices. But these facilities were only legally and economically integrated. They never integrated patient care clinically in a patient-centered way. These systems are really just a bunch of silos owned by one system, with each silo doing its own thing and even billing separately. Let me first ask whether Taiwan also has had this faux systems integration.

Minister Yeh: We encourage vertical system integration, and it is happening. Big teaching hospitals have been integrating downward with small and medium-size community hospitals. What is behind the vertical integration? Hospital systems here are very competitive. Large hospitals and medical centers, in order to carve out their territory and guarantee their sources of patients who would be referred to them—that is, have a steady supply of patients—must reach out to remote, rural community hospitals to affiliate with them or even buy them. They invest in those hospitals so they can guarantee that all patients in the community will go to them.

Cheng: Do patients get better-quality care at the integrated hospital systems?

Minister Yeh: Yes, the quality of care is better at the integrated hospital systems.

Cheng: Is that because the vertically integrated systems actually try to give patient-centered, clinically integrated care, or is there some other reason?

Minister Yeh: Vertically integrated systems improve care continuity and thus produce better patient outcomes. In addition, they give
physicians in community hospitals opportunities for further training at larger hospitals or medical centers, making them better-trained physicians, whatever their specialties. 

Cheng: In its book Crossing the Quality Chasm, the U.S. Institute of Medicine laments that American health care is highly fragmented, has poorly designed work-flow processes, and lacks even a rudimentary health IT infrastructure. Is Taiwan’s health care as fragmented as is ours in the U.S.? 

Minister Yeh: I am afraid so. It is human nature that we do not like to be cooperative. Taiwan is no exception. 

Cost-Effectiveness Analysis In Coverage Decisions 

Cheng: In the U.K., the National Institute for Health and Clinical Excellence [NICE] performs technology assessment for the NHS based on cost- and clinical effectiveness of treatments. The NHS in turn makes its coverage decisions based on NICE recommendations. How does Taiwan make its coverage decisions? 

Minister Yeh: Technology assessment in Taiwan is a touchy issue politically. Patients just don’t care about cost-effectiveness, and politicians side with them. The argument is that everyone has but one life, and so what if saving my life costs more than saving other people’s lives. This is typically how the average person thinks. What surprises me about the U.K. is that it could refuse to pay for kidney dialysis for the elderly. This would not be possible in Taiwan. Politicians here always ask the NHI to provide more and pay less. Do we pay for noneffective care? The most we can do is to ask that patients pay higher copayments, because the political price for rejecting coverage would be very high. 

Cheng: So, in essence, the NHI’s coverage decisions are greatly influenced by political interference? 

Minister Yeh: Yes, greatly. NHI benefits are already very broad—we call it the “inclusive of mountains and oceans” program. But now we must stop at providing shark fins and lobsters! Unfortunately, the problem is that it is not easy to say no in our political system. 

Workforce: Is Length Of Physician Visit A Measure Of Quality? 

Cheng: Does Taiwan have enough doctors and nurses? Taiwan’s physician- and nurse-to-population ratios—1.7 and 4.5 per thousand people in 2005, respectively—are low compared to higher ratios in OECD countries, especially for nurses. You train 1,300 doctors a year—the same number as twenty years ago, when the population was much smaller. How does this affect access to and quality of care in Taiwan? 

Minister Yeh: In 1990 our population was twenty million. Now we are at twenty-three million. But Taiwan’s population will not exceed twenty-four million at maximum and also will begin to decline very rapidly after reaching twenty-four million because of our extremely low birth rate. So our problem now is not population size, but rather population aging. We have found that every year total NHI spending will increase by 1–1.5 percent as a result of population aging. It follows that we will need a growing health workforce. I do not think we have shortages of hospital beds. But we have too few nurses—4.5 nurses per 1,000 population, compared to 9.6 per 1,000 in wealthy OECD countries. Regarding doctors, there is no shortage, although at 1.7 doctors per 1,000 people, our physician-to-population ratio is lower than the 2.64 per 1,000 in wealthy OECD countries. 

Cheng: Like Japan and South Korea, Taiwan is famous for its short physician visits and high utilization, averaging 12.4 visits per person per year (not including visits to dentists and traditional Chinese medicine). Is this a cultural phenomenon, or are there some other reasons? The World Health Organization [WHO] regards length of visit as a quality measure, based on evidence that longer visits result in better qual-
ity of care. Is this because doctors are under too much time pressure to see more patients?

**Minister Yeh:** There is no mistake that the high number of visits in Taiwan is a cultural phenomenon, as it is in Japan and Korea, where the number of visits is also high. Another reason is that any encounter with a doctor is counted as a visit. A visit to a provider just to look at a lab report counts as a visit.

Now I would like to ask, “What’s wrong with that?” In other words, seeing a doctor or going to a hospital is convenient for me; if I wish to see a doctor at any time, although the visit is short. I agree with what you said—that length of visit is regarded by the WHO as a measure for quality of care—but show me the evidence that quality is not good here. I also agree that there is a trade-off between accessibility and quality. In Taiwan, though, because patients have frequent contact with their doctors, doctors are familiar with their patients’ conditions and therefore do not need as much time for each visit as they would when they see new patients.

There is also the issue about the cost of longer visits. If you insist that every patient should be seen for fifteen or thirty minutes, it would cost a lot more—a doctor consultation is expensive. If you compare the total cost and total social cost-benefit ratios of fifteen- or thirty-minute visits with three-minute visits, you will find that a lot of people cannot afford visits and would be worse off as a whole with longer, more expensive visits. Would a system where visits are so expensive that many people cannot afford to see doctors or get treatment, as they are in the U.S., be a good system? I would argue that despite our “three-minute visits” and alleged inferior quality, if the patient has something serious, the doctor would still take the time to examine and treat the patient. Why don’t we look at the overall final outcome—how is the patient in the end? The WHO regards length of visit as a quality indicator, but over the long haul, is that efficient from the point of view of societal welfare? Is that cost-effective? Suppose we changed our system and required each physician to spend fifteen minutes per visit; what would be the consequences of such a requirement?

**Lessons For Other Countries**

**Cheng:** What lessons for developing countries trying to establish universal health insurance do you think Taiwan’s experience offers?

**Minister Yeh:** First, you need a cadre of competent technocrats who can devise sound policy and then implement it. Second, you need a political system reasonably free from corruption. Third, you need a physical infrastructure capable of delivering on health policy. Fourth, you need a head of state with dedication to the idea and willing to lead.

Most importantly, you need a good health IT system at the very beginning, to have the data capacity as a basis for policy making. Our every decision is based on quantitative evidence generated by our IT system. Taiwan invested heavily up front on health IT, and we have reaped the benefits of our powerful IT system ever since. The savings our IT system has generated have paid for the setup cost of that system many times over.

**Cheng:** What about solid economic development as a platform for the establishment of universal national health insurance—is that not equally important?

**Minister Yeh:** You are right. A country must establish national health insurance during good economic times. It should be noted that there are associated cost increases in the several years prior to the establishment of national health insurance. Fortunately, Taiwan had good economic growth for many years prior to the NHI’s implementation; so we were able to absorb the cost increases associated with its establishment.

**Cheng:** The election of President Barack Obama and a Democratic Congress in 2008 has given the U.S. another opportunity at major health reform—it is well known that the U.S.
has the highest health spending in the world (16.6 percent of GDP in 2007), and yet it leaves 15 percent (forty-six million) of its population uninsured. What, if any, of Taiwan’s experiences with health reform may be relevant and useful for the U.S.?

Minister Yeh: My comments are that universal coverage improves equity, and contracting with all providers can improve access. Because we are a single payer, we can save a tremendous amount of administrative cost. As we discussed earlier, we also have a powerful IT system to help run the NHI efficiently. In the U.S. you have so many diverse providers, you could never hope in any way to integrate them into a coherent health system without an interoperable IT system. Precisely because we have a single-payer system, all of our hospitals must follow the rule set by the single payer—there is only one set of rules. In the U.S. you have so many private health insurers, each with their own rules and nomenclature, that you spend a lot of money just on administration. Your records and images cannot easily be electronically transferred, and the whole system is fragmented and inefficient as a result. To us, government administration of the NHI is most important.

Perspective On The U.S. System

Cheng: If you were to give a lecture on the U.S. health system to college students in Taiwan, what major strengths and weaknesses of that system would you tell them about?

Minister Yeh: I thought about this question long and hard and concluded that where your system is better than ours is in the adoption of high technology, which is faster than it is in Taiwan. For example, the introduction of new drugs occurs on average two years earlier than Taiwan. For some technology, the U.S. leads us by five years. You are also way ahead in R&D. The U.S. spends a lot on R&D, and on medical education. Taiwan has eleven medical schools, but the best of them are only as good as the average American medical school. American medical education is the best in the world. We simply have not spent nearly as much in training our doctors.

Thoughts On The Single-Payer Approach

Cheng: Finally, what do you think are the strength and weaknesses of the single-payer approach, now that Taiwan has lived with it?

Minister Yeh: A single-payer system has a single risk pool, since everyone is mandated to enroll. This enables cross-subsidization among diverse groups with not only different socioeconomic status but also different health status. In addition, the single payer wields monopsonistic power in procuring services and products—hence low prices for health care.

Taiwan’s example also shows that while there is no choice of insurers, people enjoy complete free choice of providers. The latter compels the providers to be competitive and efficient. Furthermore, the administration of the single-payer system is simple, as there is one set of rules for everyone, whether it is regarding clinical protocols, quality indicators, fee schedule, etc.

However, there are some drawbacks to the single-payer system. Our system does not give us much room for flexibility and innovations in financing. For example, because of the ever-present political interference, it is difficult for us to raise the premium rate, permitted under the NHI Law, to maintain a balanced budget for the NHI.

Cheng: Thank you so much for sharing your insights with us on Taiwan’s remarkable health system.

Minister Yeh: You are most welcome. It has been my pleasure.

NOTE

1. NT$, short for the new Taiwan dollar (yuan), is Taiwan’s currency. At the time of this writing, the spot exchange value of a U.S. dollar was about 32.93 new Taiwan dollars, or yuan.
Part 4

Myths and facts

Myth 3:
Lower drug prices in other countries hurt innovation.

Fact: Drug companies spend more on marketing (31 percent) and profits (20 percent) than on R&D (13 percent). Lower drug prices would not jeopardize drug innovation, much of which is, in fact, publicly-funded.


Discussion

Extraordinary claims require extraordinary evidence

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JEL classification: L65; O31

Keywords: Pharmaceutical industry; R&D cost; Internal validity; External validity; Bias [1, 253]

1. Extraordinary claims require extraordinary evidence

At the beginning of 2003, the Journal of Health Economics published a paper of great importance in public policy by DiMasi, Hansen, and Grabowski (referred to hereafter as “DHG 2003”). The paper is based primarily on confidential, proprietary data supplied by pharmaceutical companies to the Tufts Center for the Study of Drug Development, a research center that receives significant unrestricted grants from pharmaceutical companies (TCSDD, 2004a,b). This commentary is intended to invite discussion among health economists and other researchers about the quality of data and sampling used in estimating the costs of pharmaceutical R&D.

DHG 2003 estimates that it costs $802 million on average (in 2000 dollars) to research and develop a self-originated new chemical entity, including failures and cost of capital. It is worth noting that after adjusting for inflation, the DHG 2003 cost estimates are roughly two to four times as high as other estimates of pre-approval drug R&D costs (Love, 2003; Public Citizen, 2001; OTA, 1993). The 2003 article represents a sophisticated analysis that builds on the authors’ equally important article in 1991, and adds several refinements and extensions of that prior analysis. There are, however, problems with the data and sampling on which these results depend, and this commentary focuses on those problems.

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0167-6296/$ – see front matter © 2005 Elsevier B.V. All rights reserved.
doi:10.1016/j.jheallec.2005.07.001

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A careful review of the article identified six serious sources of doubt about the validity and usefulness of the source data and methods used in DHG 2003:

(1) First, the inherent comparability and reliability of the survey data must be questioned because of variations in internal company cost allocation methods over time and across companies. Because cost data used was proprietary and confidential, readers cannot know how each company collected its data, or what was counted as research costs, and no independent verification of the accuracy of the information is possible. Firms reported R&D expenditures stretching back more than 10 years (to 1980), during which several firms underwent mergers and/or changed accounting systems or practices. The degree of potential variation is large, and these many variations in practice may compound on each other, making any point estimate misleading. (Internal validity)

(2) Second, considering the clear interest of pharmaceutical companies in higher (rather than lower) estimates of drug development costs, and sampled firms’ likely awareness of the intended use of the survey data, it is not unlikely that companies would deliberately and systematically overstate costs in their survey responses (OTA, 1993). The survey design did not permit independent review of the reported costs, so upward bias cannot be ruled out. (Internal validity.)

(3) Third, the small, non-random firm sample (n = 10) and drug sample (n = 68) introduce another potentially large source of variation and error into cost estimates. Although the sampling of drugs was reported to be random, this is misleading, because the selection of firms participating in the survey (which preceded the selection of drugs) was not random (DHG 2003, pp. 157–158); randomization cannot be recovered once lost at the first stage of sample selection. A total of 24 firms were invited to respond; 12 firms accepted and were asked to provide data on an unstated number of drugs, randomly selected from those companies’ drugs in the proprietary database; 10 firms provided usable data, covering development of 76 drugs; but drug data were usable for only 68, and complete for even fewer (it is noted as an example that only 66 drugs had Phase I trial cost data). No information is provided about how invited firms were selected, nor whether they were selected from the universe of all US research-oriented pharmaceutical firms or some other less representative universe. The 42% of invited firms that responded (10 of 24) self-selected, and given the industry interest in higher cost estimates it cannot be ruled out that firms with higher than average costs were most likely to choose to participate. (Internal validity)

(4) Fourth, the findings concern U.S. “self-originated new chemical entities” (NCEs; drugs that were researched, discovered, and developed in-house), whose costs are higher than those for more typical “new” drugs. Only 35% of new drugs approved by the FDA (from 1990 to 2000, FDA, 2004; from 1989 to 2000, NIHCREF, 2002) contained a new molecular entity, and only 62.4% of the survey firms’ approved NCEs were said to be self-originated (DiMasi et al., 2003b, p. 3, note 1). Thus “self-originated new chemical entities” represented about 22% (62.4 of 35%) of new drug approvals. The number of truly self-originated NCEs may be even smaller, because the authors note that all phases of work may not have been done in-house and because there are well-documented examples of companies making such claims that do not comport with the facts (Mitsuya et al., 1989 Weinhold General Accounting Office, 2003). This might
not matter much, in terms of estimating typical drug development costs, if all drug
development costs were similar, but they are not. According to DiMasi et al., 1991
(footnote 48), self-originated NCEs are 3.7 times more costly to develop than acquired
or licensed-in NCEs, and many times more costly than new formulations, combinations
or administrations of existing drugs. The DHG 2003 estimates therefore pertain to the
most costly 22% of new drugs. (External validity.)

(5) Fifth, estimates of company spending on drug development are presented without
deducting (or at least identifying) government subsidies to this work. The industry
receives taxpayer funds from the NIH and other agencies, though amounts are not disclo-
sed at the request of drug companies (General Accounting Office, 2003; National
Science Foundation, 2003). Given the use of cost data to justify drug prices and patent
protection, private (company-paid) cost and not social (total) cost is the policy-relevant
figure. (External validity)

(6) Finally, the cost estimates are not adjusted for tax deductions and credits. Drug R&D
expenses are fully tax-deductible each year, and there are special drug R&D tax provi-
sions. The OTA (1993) estimated that tax savings and tax credits reduced R&D spending
by nearly 50%. Lower tax rates in the 1990s might reduce that figure somewhat, but
pre-tax costs clearly overstate true private (company) costs by a substantial percentage.
(External validity)

These significant concerns about internal and external validity call the study results into
question. Good science depends on different investigators analyzing the same data. Yet this
science-based industry refuses to allow independent parties to check the validity of their cost
data and analyze it so that policy can be based on solid, objective, reproducible evidence.

The estimate of R&D cost in this article is widely cited and accepted as an authoritative
“fact” in the press and in the highest national and global policy circles. Given the prominent
use of these cost estimates by the pharmaceutical industry and its advocates to influence
national and international policies, it is critical that they be scientifically valid and relevant
to the policy uses made of them. Shortly after DHG 2003 appeared, the Tufts Center for the
Study of Drug Development announced that the average cost of developing a self-originated
new chemical entity, including post-approval studies, was $897 million (TCSDD, 2003;
Kaitin, 2003; DHG 2003). This figure, like the ones that preceded it, is based on confidential,
unsystematic data, and has dubious scientific validity. In addition, adding post-approval
studies to the costs of R&D is inherently questionable, because these “seeding trials” are
designed primarily to familiarize physicians with the new drug and encourage its use; they
are rarely randomized or blinded, but instead feature open-label case series, and are often
sponsored by company marketing departments (Kessler et al., 2004).

References


Foreign free riders and the high price of US medicines

Donald W Light, Joel Lexchin

The US government, backed by the pharmaceutical industry, wants to convince Americans that they’re paying more for drugs because they’re contributing more than their fair share of the costs of research and development. Not so, argue two researchers who have looked at the evidence.

The United States government is engaged in a campaign to characterise other industrialised countries as free riding on high US pharmaceutical prices and innovation in new drugs. This campaign is based on the argument that lower prices imposed by price controls in other affluent countries do not pay for research and development costs, so that Americans have to pay the research costs through higher prices in order to keep supplying the world with new drugs. Supporters of the campaign have characterised the situation as a foreign rip-off. We can find no evidence to support these and related claims, and we present evidence to the contrary. Furthermore, we explain why the claims themselves contradict the economic nature of the pharmaceutical industry.

Origins of the campaign

The campaign, strongly backed by the pharmaceutical industry, seems to have started in the late 1990s as a response to a grass roots movement started by senior citizens against the high prices of essential prescription drugs. This issue was the most prominent one for both parties in the 2000 elections and has since been fuelled by a series of independent reports documenting that US drug prices are much higher than those in other affluent countries. The idea that other countries are exploiting the US has led to a hearing of the US Senate Committee on Health, Education, Labor and Pensions and was behind a Department of Commerce report that strongly advocated that other developed countries raise prices on patented medicines. But are higher prices really necessary?

The free rider myth

We can find no convincing evidence to support the view that the lower prices in affluent countries outside the United States do not pay for research and development costs. The latest report from the UK Pharmaceutical Price Regulation Scheme documents that drug companies in the United Kingdom invest proportionately more of their revenues from domestic sales in research and development than do companies in the US. Prices in the UK are much lower than those in the US yet profits remain robust.

Companies in other countries also fully recover their research and development costs, maintain high profits, and sell drugs at substantially lower prices than in the US. For example, in Canada the 35 companies that are members of the brand name industry association report that income from domestic sales is, on average, about 10 times greater than research and development costs. They have profits higher than makers of computer equipment and telecommunications carriers despite prices being about 40% lower than in the US.

Lower prices do not lead to less research

Mark McClellan, the former commissioner of the Food and Drug Administration, maintained that low prices are “slowing the process of drug development worldwide.” A corollary to this claim is that drug companies are shutting down their European operations because prices are too low and moving to the US. This assertion is contradicted by the industry’s data. The European Federation of Pharmaceutical Industries and Associations reported that, between 1990 and 2003, its members increased their research and development investments in Europe by 2.6-fold and in the US by fourfold. The federation concluded that this differential was due to multiple factors, such as the economic and regulatory framework, the science base,
the investment conditions, and societal attitudes towards new technologies.

On several measures, other developed countries spend proportionately as much as the US on research and development. The table presents the spending on research and development as a percentage of gross domestic product for eight developed countries. The US is about at the median. Prices in the countries with better ratios than the US were 31-36% less than those in the US. Pharmaceutical companies commit as large a percentage of sales to research and development in Europe as in the US, about 19% on average over the past seven years. This little reported fact contradicts the widely circulated claims that European countries deliberately ignore research and development costs in calculating prices.

Europe no less innovative than the US

Contrary to claims of American dominance, pharmaceutical research and development in the US has not produced more than its proportionate share of new molecular entities. The US accounts for just under 48% of world sales and spent 49% of the global total on research and development to discover 45% of the new molecular entities that were launched on the world market in 2003, less than its proportionate share. European countries account for 28% of world sales, 36% of total research and development spending, and 32% of new molecular entities, more than its proportionate share.

Limited investment in breakthrough research

Pharmaceutical research and development is traditionally divided into three categories:
- Basic—work to discover new mechanisms and molecules for treating a disorder
- Applied—work that develops a discovery into a specific practical application, including research on manufacturing processes and preclinical or clinical studies
- Other—work that includes drug regulation submissions, bioavailability studies, and post-marketing trials.

Although all types of research are valuable, it is basic research that leads to important therapeutic breakthroughs. Only a fraction of overall industry expenditure is on basic research, and it does not require the high prices currently seen in the US to support it.

The Pharmaceutical Research and Manufacturers of America reports that companies invest on average about 18-19% of domestic sales into research. This figure is considerably higher than that produced by the US National Science Foundation. Its 1999 data show that drug companies invest 12.4% of gross domestic sales on research and development (10.5% in-house and 1.9% contracted out), but only 18% of the amount spent in-house went on basic research. Assuming that 18% of contracted out research is also spent on basic research (the actual figure is not reported) then only 2.2% (18%×12.4%) of revenue goes to basic research. The after tax cost of $1 of research and development expenditures in the US seems to be $0.53 to $0.61, owing to tax incentives to do research. Thus US pharmaceutical companies devote a net of only about 1.3 cents

(2.4%×(0.53+0.61)/2) of every dollar from sales to innovation.

Only 10-15% of newly approved drugs provide important benefits over existing drugs. From a drug company’s point of view, investing principally in research to produce new variations of existing drugs makes sense. Government protections from normal price competition do not distinguish between the lower risk, less costly derivative kind of research and high risk basic research needed to discover new molecules.

Misusing economic theory

The industry’s principal claims, as well as being contradicted, are based on false premises. Firstly, counting which country discovers the most new molecular entities is irrelevant in a global market. Companies know that where a good drug is discovered does not matter, and often a discovery comes from research in several countries. Whether domestic revenues recover a given country’s research and development costs is also irrelevant. If this were not the case the industry would have shut down operations in Switzerland long ago because of its small market size.

If revenues are inadequate, it would make more sense to conclude they do not cover all marketing costs rather than research costs. Research is central to the industry, and costs associated with it should be deducted first. Pharmaceutical companies report that they invest around three times more in the combination of marketing, advertising, and administration than in research, leaving ample room to cut costs.

Secondly, every student in introductory economics learns that fixed costs like research do not determine prices. The market sets prices, implying they are open to free trading like stock prices. Patents, and especially patent clusters, turn the market into a monopoly, and only a monopoly can claim that fixed costs determine prices because it can make that a self fulfilling prophecy. The claim by companies that they have to set prices at 50-100 times production costs to recover research and development costs has never been substantiated, because they have never opened their books to independent public inspection to prove it. What we do know is that all research and development costs are fully recovered each year from domestic sales in the UK and Canada at prices that are far lower than those in the US.

Thirdly, free rider is both a vivid public image of someone jumping on for a free ride and a highly misleading economic term. Technically it refers to a method for allocating fixed costs in proportion to the prices that different groups pay. For example, if Group A (call it Europe) pays $1 per pill and Group B (call it

Ratio of pharmaceutical spending on research and development to gross domestic product and ratio of drug prices to US prices, 2000

<table>
<thead>
<tr>
<th>Country</th>
<th>% of GDP</th>
<th>% of US price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>0.08</td>
<td>63.6</td>
</tr>
<tr>
<td>France</td>
<td>0.14</td>
<td>55.2</td>
</tr>
<tr>
<td>Germany</td>
<td>0.11</td>
<td>65.3</td>
</tr>
<tr>
<td>Italy</td>
<td>0.06</td>
<td>52.9</td>
</tr>
<tr>
<td>Sweden</td>
<td>0.35</td>
<td>63.6</td>
</tr>
<tr>
<td>Switzerland</td>
<td>0.55</td>
<td>69.2</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>0.32</td>
<td>68.6</td>
</tr>
<tr>
<td>United States</td>
<td>0.24</td>
<td>100</td>
</tr>
</tbody>
</table>

GDP=gross domestic product.
Summary points

Prices of patented drugs are substantially higher in the US than in other affluent countries.

Published reports indicate that pharmaceutical companies in affluent countries recover research and development costs from domestic sales with substantial profits.

Discovery of innovative new drugs in Europe is proportionately equal to that in the US.

US pharmaceutical companies invest just 1.3% of net sales in basic research.

The idea that the US is subsiding other rich countries contradicts basic economics and the global nature of pharmaceutical markets.

the US) pays $2 a pill and each buys a million pills, then this accounting method would assign half as much of the fixed cost to Group A as to Group B. If, however, the fixed costs are only $300,000 (a tenth of the total revenue) for the two million pills, the fixed costs could be allocated by volume rather than by price ($150,000 for each group) and conclude that Group A more than pays the fixed costs and Group B pays much more than it has to. In short, the free riding argument economically is the artefact of an accounting convention and can be eliminated by Group B cutting its prices in half, rather than forcing Group A to double its prices.

Conclusions

The pharmaceutical industry has provided invaluable medicines to cure and relieve millions of patients throughout the world. As an industry, it drives economic growth and employs thousands of skilled people. But it also uses false economics and makes up stories to justify higher prices. Higher prices strain budgets, causing millions of US patients not to take the drugs their doctors think necessary. The pharmaceutical industry and the US government want to blame other developed countries for these higher prices rather than make drugs more affordable.

Contributors and sources: This article is based on all the major documents we could locate, a careful search of the websites of the European Federation of Pharmaceutical Industry Associations and Pharmaceutical Research and Manufacturers of America, and a Medline search. DWL is a professor of comparative health care policy, a contributor to the WHO Observatory volume on European pharmaceutical policy, and a member of the taskforce for the Gates Foundation on how best to make vaccines for global diseases economically viable. J.L. has been conducting research into pharmaceutical policy for over 20 years and has acted as a consultant to various national governments and the WHO on pharmaceutical matters. DWL had the idea for the article, wrote the first draft, and is the guarantor. J.L. did the analyses, edited the draft, and made empirical contributions.

Conflicts of interest: None declared.
Part 4

Myths and facts

Myth 4:

Competition is needed to control costs and ensure high-quality care.

Fact: Competition among investor-owned, for-profit entities – including hospitals, HMOs, hospice care, and nursing homes – increases costs and degrades quality.


The high costs of for-profit care

Steffie Woolhandler, David U. Himmelstein

A s we have written elsewhere, some aspects of life are too precious, intimate or corruptible to entrust to the market. We prohibit selling kidneys and buying wives or judges. But the market has unquestionably gained new territory in recent years, as more and more activities previously performed by government or nonprofit agencies — including interrogating Iraqi prisoners — have been turned over to private enterprise. For ordinary citizens, the drive to privatize is most evident in health care. In the United States, investor-owned firms have come to dominate renal dialysis, nursing home care, inpatient psychiatric and rehabilitation facilities and health maintenance organizations (HMOs). They have made significant inroads among acute care hospitals (now owning about 13% of such facilities), as well as outpatient surgical centres, home care agencies and even hospices. Canada has lagged behind the United States, but by increments the private delivery of publically funded services increases. The for-profit barbarians are at the gates.

Those who favour for-profit health care argue that the profit motive optimizes care and minimizes costs. In this issue P.J. Devereaux and colleagues add to the considerable evidence that this dogma has no clothes. Their meticulous meta-analysis demonstrates a pattern of higher payments for care in private, investor-owned hospitals as compared with private not-for-profit hospitals. The only significant exception was a small study comparing private for-profit hospitals with nominally not-for-profit hospitals run by a private, for-profit firm — in other words, both groups of hospitals in this study were under for-profit management.

The excess payments for care in private for-profit institutions were substantial: 19%. This figure implies that the US$37 billion that Americans paid for care at investor-owned acute care hospitals in 2001 would have cost only US$31 billion at not-for-profit hospitals — a waste of US$6 billion. But higher acute care (and rehabilitation) hospital payments are not the whole story on investor-owned care. For-profit hospitals and dialysis clinics have high death rates. Investor-owned nursing homes are more frequently cited for quality deficiencies and provide less nursing care, and investor-owned hospices provide less care to the dying, than non-for-profit facilities.

Why does investor ownership increase costs? Investor-owned hospitals are profit maximizers, not cost minimizers. Strategies that bolster profitability often worsen efficiency and drive up costs. Columbia/HCA, the largest hospital firm in the United States, has paid the US government US$1.7 billion in settlements for fraud, the payment of kickbacks to physicians and overbilling of Medicare. Tenet, the second largest US hospital firm, paid more than half a billion dollars to settle charges of giving kickbacks for referrals and inaccurately detaining psychiatric patients to fill beds during the 1980s, when the firm was known as NME. In March 2004, Tenet agreed to pay the US government US$22.5 million to settle one of several cases; recent allegations against them have included performing cardiac procedures on healthy patients, offering kickbacks for referrals and exploiting Medicare loopholes to claim hundreds of millions in undeserved payments.

For-profit executives reap princely rewards, draining money from care. When Columbia/HCA’s CEO resigned in the face of fraud investigations, he left with a $10 million severance package and $324 million in company stock. Tenet’s CEO exercised stock options worth $111 million shortly before being forced out in 2003, and the head of HealthSouth (the dominant provider of rehabilitation care) made $112 million in 2002, the year before his indictment for fraud.

Enormous CEO incomes explain part, but not all, of the high administrative costs at investor-owned health care firms. Investor-owned hospitals spend much less on nursing care than not-for-profit hospitals, but their administrative costs are 6 percentage points higher (presumably reflecting their more meticulous attention to financial details).

High administrative costs and lower quality have also characterized for-profit HMOs, now the dominant private insurers in the United States. Such plans take 19% for overhead, versus 13% in non-profit plans, 3% in the US Medicare program and 1% in Canadian medicare. Strikingly, contracting with private HMOs has substantially increased US Medicare costs. For the past decade, Medicare has paid HMO premiums for seniors choosing to enroll in such private plans. According to official estimates, the HMOs have recruited healthy seniors who, had they not switched to an HMO, would have cost Medicare little — about $2 billion less annually than the HMOs’ premiums.

Private plans that were unable to recruit healthy people dropped out of their Medicare contracts, disrupting care for millions of seniors. Washington’s response? Sweeten the pot for Medicare HMOs by including $46 billion to raise HMO payments as part of the recently enacted Medicare prescription drug bill.

Why do for-profit firms that offer inferior products at inflated prices survive in the market? Several prerequisites for the competitive free market described in textbooks are absent in health care.

First, it is absurd to think that frail elderly and seriously ill patients, who consume most care, can act as informed...
consumers (i.e., comparison-shop, reduce demand when suppliers raise prices or accurately appraise quality). Even less vulnerable patients can have difficulty gauging whether a hospital’s luxurious appurtenances bespeak good care.

Second, the “product” of health care is notoriously difficult to evaluate, even for sophisticated buyers like government. Physicians and hospitals create the data used to monitor them; self-interest puts the accuracy of such data into question. By labelling minor chest discomfort “angina” rather than “chest pain,” a US hospital can garner both higher Medicare payments and a factitiously improved track record for angina treatment. It is easier and more profitable to exploit such loopholes than to improve efficiency or quality.

Even for honest firms, the careful selection of lucrative patients and services is the key to success, whereas meeting community needs often threatens profitability. For example, for-profit specialty hospitals offering only cardiac or orthopedic care (money-makers under current payment schemes) have blossomed across the United States. Most of these new hospitals duplicate services available at nearby not-for-profit general hospitals, but the newcomers avoid money-losing programs such as geriatric care and emergency departments (a common entry point for uninsured patients). The profits accru to the investors, the losses to the not-for-profit hospitals, and the total costs to society rise through the unnecessary duplication of expensive facilities.

Finally, a real market would require multiple independent buyers and sellers, with free entry into the marketplace. Yet, many hospitals exercise virtual monopolies. A town’s only hospital cannot compete with itself; but can use its market power to inflate its earnings. Not surprisingly, for-profit hospital firms in the United States have concentrated their purchases in areas where they can gain a large share of the local market. Moreover, many health care providers and suppliers enjoy state-conferring monopolies in the form of licensure laws for physicians and hospitals and patent protection for drugs. Additionally, government pays most health costs — even in the United States.21 Indeed, public funding for health care in the United States exceeds total health spending in Canada on a per capita basis. It’s an odd market that relies largely on public funds.

Privatization results in a large net loss to society in terms of higher costs and lower quality, but some stand to gain. Privatization creates vast opportunities for powerful firms, and also redistributes income among health workers. Pay scales are relatively flat in government and not-for-profit health institutions; pay differences between the CEO and a housekeeper are perhaps 20:1. In US corporations, a ratio of 180:1 is average.22 In effect, privatization takes money out of the pockets of low-wage, mostly female health workers and gives it to investors and highly paid managers.

Behind false claims of efficiency lies a much uglier truth. Investor-owned care embodies a new value system that severs the community roots and Samaritan traditions of hospitals, makes physicians and nurses into instruments of investors, and views patients as commodities. Investor ownership marks the triumph of greed.

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Competing interests: None declared.

Contributors: Both authors contributed equally to the conception, research and writing of this editorial.

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Payments for care at private for-profit and private not-for-profit hospitals: a systematic review and meta-analysis


See related article page 1814

Fast-tracked article

Abstract

Background: has been shown that patients cared for at private for-profit hospitals have higher risk-adjusted mortality rates than those cared for at private not-for-profit hospitals. Uncertainty remains, however, about the economic implications of these forms of health care delivery. Since some policy-makers might still consider for-profit health care if expenditure savings were sufficiently large, we undertook a systematic review and meta-analysis to compare payments for care at private for-profit and private not-for-profit hospitals.

Methods: We used 6 search strategies to identify published and unpublished observational studies that directly compared the payments for care at private for-profit and private not-for-profit hospitals. We masked the study results before teams of 2 reviewers independently evaluated the eligibility of all studies. We confirmed data or obtained additional data from all but 1 author. For each study, we calculated the payments for care at private for-profit hospitals relative to private not-for-profit hospitals and pooled the results using a random effects model.

Results: Eight observational studies, involving more than 350 000 patients altogether and a median of 324 hospitals each, fulfilled our eligibility criteria. In 5 of 6 studies showing higher payments for care at private for-profit hospitals, the difference was statistically significant; in 1 of 2 studies showing higher payments for care at private not-for-profit hospitals, the difference was statistically significant. The pooled estimate demonstrated that private for-profit hospitals were associated with higher payments for care (relative payments for care 1.19, 95% confidence interval 1.07–1.33, \( p = 0.001 \)).

Interpretation: Private for-profit hospitals result in higher payments for care than private not-for-profit hospitals. Evidence strongly supports a policy of not-for-profit health care delivery at the hospital level.

Separating issues of funding (i.e., who pays for health care) and delivery (i.e., who owns and administers the institutions providing care) helps to inform debates about health care systems. Funding for health care can come through private sources, primarily administered through insurance companies, or through public payment, by governments using tax dollars. Care can be delivered at private for-profit institutions that are owned by investors; private not-for-profit institutions that are owned by communities, religious organizations or philanthropic groups; or public health care institutions owned and administered by the government.

Canadian hospitals are publicly funded. In terms of delivery, although they are commonly referred to as public institutions, Canadian hospitals are almost all owned and operated by private not-for-profit organizations. Canadian policy-makers continue to consider an expansion of private for-profit health care delivery, including private for-profit hospitals.

We have previously demonstrated higher risk-adjusted death rates among patients receiving care at private for-profit hospitals than among patients at private not-for-profit hospitals in a comprehensive systematic review. Uncertainty remains, however, about the economic implications of these forms of health care delivery. Studies evaluating the economics of health care delivery usually evaluate costs, charges or payments for care. From the perspective of a service provider, costs represent how much the provider paid to provide care, charges represent how much the provider billed the payer, and payments represent how much the provider received for the care received. In the context of publicly funded health care, the central policy question is how much government will pay for care delivered by private for-profit versus private not-for-profit providers. We therefore undertook a systematic
review and meta-analysis to address the following question: is there a difference in payments for patient care received at private for-profit compared with private not-for-profit hospitals?
A systematic review and meta-analysis of studies comparing mortality rates of private for-profit and private not-for-profit hospitals

P.J. Devereaux,* Peter T.L. Choi,†‡ Christina Lacchetti,‡ Bruce Weaver,‡ Holger J. Schünemann,§ Ted Haines,‡ John N. Lavis,†* Brydon J.B. Grant,§†‡‡ David R.S. Haslam,§§ Mohit Bhandari,¶ Terrence Sullivan,*** Deborah J. Cook,‡ Stephen D. Walter,‡ Maureen Meade,† Humaira Khan,‡ Neera Bhatnagar,†† Gordon H. Guyatt‡

Abstract

**Background:** Canadians are engaged in an intense debate about the relative merits of private for-profit versus private not-for-profit health care delivery. To inform this debate, we undertook a systematic review and meta-analysis of studies comparing the mortality rates of private for-profit hospitals and those of private not-for-profit hospitals.

**Methods:** We identified studies through an electronic search of 11 bibliographical databases, our own files, consultation with experts, reference lists, PubMed and SciSearch. We masked the study results before determining study eligibility. Our eligibility criteria included observational studies or randomized controlled trials that compared private for-profit and private not-for-profit hospitals. We excluded studies that evaluated mortality rates in hospitals with a particular profit status that subsequently converted to the other profit status. For each study, we calculated a relative risk of mortality for private for-profit hospitals relative to private not-for-profit hospitals and pooled the studies of adult populations that included adjustment for potential confounders (e.g., teaching status, severity of illness) using a random effects model.

**Results:** Fifteen observational studies, involving more than 26 000 hospitals and 38 million patients, fulfilled the eligibility criteria. In the studies of adult populations, with adjustment for potential confounders, private for-profit hospitals were associated with an increased risk of death (relative risk [RR] 1.020, 95% confidence interval [CI] 1.003–1.038; p = 0.02). The one perinatal study with adjustment for potential confounders also showed an increased risk of death in private for-profit hospitals (RR 1.095, 95% CI 1.050–1.141; p < 0.0001).

**Interpretation:** Our meta-analysis suggests that private for-profit ownership of hospitals, in comparison with private not-for-profit ownership, results in a higher risk of death for patients.
Quality of Care in Investor-Owned vs Not-for-Profit HMOs

David U. Himmelstein, MD
Steffie Woolhandler, MD, MPH
Ida Hellander, MD
Sidney M. Wolfe, MD

HEALTH MAINTENANCE ORGANIZATIONS (HMOs) have been both derided and defended. Studies comparing HMOs with fee-for-service care have generally found similar outcomes for the average, healthy enrollee. However, most, but not all, studies have found worse outcomes in managed care for vulnerable groups (ie, the seriously ill, the mentally ill, and the poor). Both patients and physicians are less satisfied with care delivered through HMOs.

Most research on quality of care in HMOs has examined nonprofit group- and staff-model plans. Yet other types of HMOs have accounted for most of the recent increase in enrollment. Between 1985 and 1998 the proportion of HMO members enrolled in investor-owned plans increased from 26% to 62%; between 1980 and 1998 the market share of group- and staff-model plans decreased from 81% to 12%.

In investor-owned plans, executives’ primary fiduciary duty is to shareholders, who are vitally concerned with profits but unlikely to receive their medical care in the plan. However, a major concern is whether the quest for profit compromises the quality of care.

METHODS

We analyzed data from the National Committee for Quality Assurance’s (NCQA’s) Quality Compass 1997 including the Health Plan Employer Data and Information Set (HEDIS) (version 3.0) and HMO accreditation surveys. The data reflect plan characteristics and performance for 1996.

HEDIS is a set of standardized quality, utilization, financial, and other indicators designed to allow comparisons of managed care plans. A total of 329 HMOs (248 investor-owned and 81 not-for-profit) in 45 states and the District of Columbia provided at least some HEDIS quality, utilization, financial, and other indicators.

Conclusions

Investor-owned HMOs deliver lower quality of care than not-for-profit plans.
Table 1. Characteristics of Health Plans Analyzed and of All US Health Maintenance Organizations

<table>
<thead>
<tr>
<th>Total US health maintenance organization enrollment</th>
<th>Plans Providing NCQA Quality and Administrative Data</th>
<th>All US Health Maintenance Organizations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ownership</td>
<td>56</td>
<td>100</td>
</tr>
<tr>
<td>For-profit</td>
<td>75.4</td>
<td>68.4</td>
</tr>
<tr>
<td>Nonprofit</td>
<td>24.6</td>
<td>25.9</td>
</tr>
<tr>
<td>Unknown</td>
<td>. . .</td>
<td>5.8</td>
</tr>
<tr>
<td>Model type</td>
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<td></td>
</tr>
<tr>
<td>Independent practice association</td>
<td>36.8</td>
<td>51.1</td>
</tr>
<tr>
<td>Network</td>
<td>6.7</td>
<td>9.5</td>
</tr>
<tr>
<td>Group</td>
<td>7.3</td>
<td>5.5</td>
</tr>
<tr>
<td>Staff</td>
<td>1.8</td>
<td>3.1</td>
</tr>
<tr>
<td>Mixed</td>
<td>45.9</td>
<td>29.7</td>
</tr>
<tr>
<td>Other or unknown</td>
<td>1.5</td>
<td>1.2</td>
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<tr>
<td>Location†</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New England</td>
<td>8.2</td>
<td>6.3</td>
</tr>
<tr>
<td>Mid Atlantic</td>
<td>17.6</td>
<td>12.3</td>
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<tr>
<td>South Atlantic</td>
<td>23.1</td>
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<tr>
<td>East north Central</td>
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<td>West north Central</td>
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<tr>
<td>South Central</td>
<td>15.8</td>
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<tr>
<td>Mountain</td>
<td>8.5</td>
<td>9.9</td>
</tr>
<tr>
<td>Pacific</td>
<td>9.1</td>
<td>9.9</td>
</tr>
</tbody>
</table>

All values are percentages. The total number of plans in the United States was 781 with 329 providing National Committee for Quality Assurance (NCQA) quality and administrative data. Ellipses indicate data not available.

†Several plans operate in more than 1 region.

Table 2. Quality-of-Care Indicators: Investor-Owned vs Not-for-Profit Health Maintenance Organizations for 1996

<table>
<thead>
<tr>
<th></th>
<th>Investor-Owned Rate, % (No. of Plans Submitting Data)</th>
<th>Not-for-Profit Rate, % (No. of Plans Submitting Data)</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immunization completion rate for 2-year-olds</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diphtheria pertussis tetanus (4 doses)</td>
<td>76.5 (212)</td>
<td>82.8 (68)</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Oral poliovirus (3 doses)</td>
<td>83.0 (212)</td>
<td>87.4 (68)</td>
<td>&lt;.002</td>
</tr>
<tr>
<td>Measles measles rubella (1 dose)</td>
<td>80.1 (212)</td>
<td>90.7 (67)</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Haemophilus influenzae type B (3 doses)</td>
<td>82.4 (212)</td>
<td>89.2 (68)</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Hepatitis B (3 doses)</td>
<td>78.8 (208)</td>
<td>83.0 (65)</td>
<td>&lt;.02</td>
</tr>
<tr>
<td>All of the above</td>
<td>63.9 (207)</td>
<td>72.3 (68)</td>
<td>&lt;.001</td>
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<tr>
<td>Immunization completion rate for 13-year-olds*</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Mammography rate within 2 y for women aged 52-69 y</td>
<td>69.4 (229)</td>
<td>75.1 (80)</td>
<td>&lt;.001</td>
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<tr>
<td>Papanicolaou test rate within 3 y for women aged 21-64 y</td>
<td>69.2 (230)</td>
<td>77.1 (75)</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>First trimester prenatal care rate</td>
<td>83.1 (223)</td>
<td>88.5 (70)</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Women receiving postpartum checkup within 42 d of delivery</td>
<td>56.9 (192)</td>
<td>59.6 (69)</td>
<td>.25</td>
</tr>
<tr>
<td>β-Blocker prescription filled for patients discharged after a myocardial infarction with no evidence of contraindication†</td>
<td>59.2 (98)</td>
<td>70.6 (49)</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Patients with diabetes who are receiving insulin or oral hypoglycemic agent and who had an eye examination in past year</td>
<td>35.1 (224)</td>
<td>47.9 (80)</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Rate of outpatient follow-up within 30 d for patients older than 6 y hospitalized with mental disorder</td>
<td>70.5 (154)</td>
<td>77.1 (58)</td>
<td>&lt;.001</td>
</tr>
</tbody>
</table>

*Includes mumps measles rubella, hepatitis B, tetanus diphtheria, and varicella if not immune.
†Contraindication defined as International Classification of Diseases, 9th Revision diagnosis of insulin–dependent diabetes mellitus, asthma, heart block greater than first degree, sinus bradycardia, congestive heart failure, left ventricular dysfunction, or chronic obstructive pulmonary disease.

Many HMO firms failed to supply the NCQA with accurate data on total enrollment, Medicaid or Medicare enrollment, patient demographics, or plan age (in some cases the HMO apparently reported data for the entire firm rather than for individual plans or lines of business). Hence, we could not reliably analyze these variables.

We examined all 14 quality-of-care variables included under the NCQA’s rubric “Effectiveness of Care” for which data were available. For instances in which data included implausible rates (eg, an immunization rate of 0%), we re-coded the value as missing. The NCQA requires HMOs to follow a detailed guide defining each measure and specifying standards for data submission. Plans may collect data to calculate their rates from administrative records (administrative method), or supplement administrative data with chart reviews (hybrid method). The hybrid method, used by more than 90% of plans, usually results in higher reported rates.

For each quality indicator, the administrative method requires that the plan identify the target population: patients continuously enrolled in the HMO for an appropriate period (eg, 1 year for Papanicolaou tests and immunizations, 2 years for mammograms, or 7 days after hospital discharge for β-blocker usage after myocardial infarction) and for whom the particular intervention is clinically appropriate (eg, women aged 52-69 years for mammography). For most indicators, patients whose coverage was interrupted for up to 45 days per year are also included. The HMO then searches administrative records (eg, payment and pharmacy files) for evidence that the intervention occurred. If no evidence of the intervention is found, the HMO may choose to search for exclusions (eg, a history of bilateral mastectomy would exclude the need for mammography). The reported rate is the number of patients receiving separate data for each plan or line of business (eg, Kaiser Foundation Health Plan Inc operated 13 distinct plans that each reported HEDIS data). Our unit of analysis was the individual plan.
the intervention divided by the number eligible and without exclusions.

For the hybrid method, the plan chooses a sample of eligible patients from among the target population identified as in the administrative method. For most measures, a minimum sample size of 411 patients (after all exclusions) is required. For plans that have previously documented high rates for a particular intervention, somewhat smaller sample sizes are allowed (because for any given sample size the SE of the percentage becomes smaller when rates rise above 50%). For instance, the hybrid method requires a minimum sample size of 313 for a plan that had previously documented a Papanicolaou test rate of above 50%). For instance, the hybrid method requires a minimum sample size of 313 for a plan that had previously documented a Papanicolaou test rate of above 50%.

We also examined total costs per member per month and the medical loss ratio, defined as total medical and hospital expenses divided by total revenues from premiums, fee-for-service, Medicare, and Medicaid.

We used t tests to evaluate differences in univariate comparisons of rates. We performed multiple linear regressions to analyze the association of ownership status with quality indicators after control for region (8 categories), the method used by the plan to collect data (administrative or hybrid), and HMO model type (6 categories). All analyses used SAS software.

**RESULTS**

TABLE 1 compares the characteristics of the 329 plans we analyzed with those of all HMOs in the United States. Compared with plans in the NCQA sample, nonparticipating plans were smaller, newer, more likely to be group or mixed model, and to be located in the east north Central region. Similar proportions of investor-owned and not-for-profit plans submitted quality-of-care data.

In univariate comparisons, investor-owned plans had lower rates for all 14 quality indicators (Table 2). The largest differences were in the 2 measurements of the quality of care for patients with serious medical illnesses. Among patients discharged from the hospital after a myocardial infarction (with no concurrent diagnosis contraindicating β-blocker therapy), on average 59.2% of patients in investor-owned HMOs compared with 70.6% of patients in not-for-profit plans filled a prescription for a β-blocker (P < .001). Among patients with diabetes receiving insulin or oral hypoglycemic agents, on average 35.1% of those in investor-owned plans vs 47.9% in not-for-profit plans had received an eye examination within the past year (P < .001).

Investor-owned plans also had lower rates of all routine preventive services that we evaluated (Table 2). The rate of completion of immunizations for 2-year-olds averaged 63.9% in investor-owned HMOs vs 72.3% in not-for-profit plans (P < .001); the proportion of women aged 52 to 69 years who had undergone mammography within the past 2 years averaged 69.4% in investor-owned plans and 75.1% in not-for-profit plans (P < .001). Staff- and group-model HMOs had higher scores on virtually all quality-of-care in-

---

**Table 3. Quality-of-Care Indicators by Health Maintenance Organization Model Type for 1996**

<table>
<thead>
<tr>
<th>Rate, % (No. of Plans Submitting Data)</th>
<th>Staff</th>
<th>Group</th>
<th>IPA</th>
<th>Network</th>
<th>Mixed</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immunization completion rate for 2-year-olds</td>
<td>93.0 (6)</td>
<td>84.3 (23)</td>
<td>77.5 (103)</td>
<td>75.7 (19)</td>
<td>77.2 (124)</td>
<td>72.4 (5)</td>
</tr>
<tr>
<td>Oral poliovirus 3 doses</td>
<td>95.3 (6)</td>
<td>89.6 (23)</td>
<td>83.4 (103)</td>
<td>80.9 (19)</td>
<td>83.8 (124)</td>
<td>77.2 (5)</td>
</tr>
<tr>
<td>Mumps measles rubella (1 dose)</td>
<td>96.0 (6)</td>
<td>89.6 (23)</td>
<td>87.6 (103)</td>
<td>84.2 (19)</td>
<td>86.6 (124)</td>
<td>85.0 (4)</td>
</tr>
<tr>
<td>Haemophilus influenzae type B (3 doses)</td>
<td>95.3 (6)</td>
<td>87.3 (23)</td>
<td>84.8 (103)</td>
<td>82.7 (19)</td>
<td>82.6 (124)</td>
<td>80.8 (5)</td>
</tr>
<tr>
<td>Hepatitis B (3 doses)</td>
<td>86.8 (6)</td>
<td>87.2 (23)</td>
<td>79.7 (103)</td>
<td>77.9 (16)</td>
<td>78.8 (120)</td>
<td>71.2 (5)</td>
</tr>
<tr>
<td>All of the above</td>
<td>81.0 (6)</td>
<td>75.7 (23)</td>
<td>65.0 (104)</td>
<td>64.8 (19)</td>
<td>64.7 (118)</td>
<td>58.2 (5)</td>
</tr>
<tr>
<td>Immunization completion rate for 13-year-olds†</td>
<td>84.0 (4)</td>
<td>66.5 (22)</td>
<td>50.8 (82)</td>
<td>43.4 (17)</td>
<td>54.7 (104)</td>
<td>39.0 (3)</td>
</tr>
<tr>
<td>Mammography rate within 2 y for women aged 52-69 y</td>
<td>82.7 (6)</td>
<td>76.5 (23)</td>
<td>69.3 (117)</td>
<td>71.3 (21)</td>
<td>70.9 (137)</td>
<td>65.8 (5)</td>
</tr>
<tr>
<td>Papanicolaou test rate within 3 y for women aged 21-64 y</td>
<td>83.7 (6)</td>
<td>76.8 (24)</td>
<td>70.4 (109)</td>
<td>72.0 (22)</td>
<td>70.2 (139)</td>
<td>66.6 (5)</td>
</tr>
<tr>
<td>First trimester prenatal care rate</td>
<td>93.5 (6)</td>
<td>90.0 (24)</td>
<td>83.7 (102)</td>
<td>82.7 (20)</td>
<td>83.6 (136)</td>
<td>86.6 (5)</td>
</tr>
<tr>
<td>Women receiving postpartum checkup within 42 d of delivery</td>
<td>67.1 (5)</td>
<td>60.5 (24)</td>
<td>57.9 (104)</td>
<td>60.6 (18)</td>
<td>55.6 (106)</td>
<td>60.4 (4)</td>
</tr>
<tr>
<td>β-Blocker prescription filled for patients discharged after a myocardial infarction with no evidence of contraindication‡</td>
<td>71.1 (2)</td>
<td>75.2 (19)</td>
<td>62.4 (49)</td>
<td>53.5 (12)</td>
<td>61.6 (63)</td>
<td>55.1 (2)</td>
</tr>
<tr>
<td>Patients with diabetes who are receiving insulin or oral hypoglycemic agent and who had an eye examination in past year</td>
<td>62.8 (6)</td>
<td>53.5 (24)</td>
<td>33.4 (115)</td>
<td>39.9 (21)</td>
<td>39.2 (133)</td>
<td>24.4 (5)</td>
</tr>
<tr>
<td>Rate of outpatient follow-up within 30 d for patients older than 6 y hospitalized with mental disorder</td>
<td>83.2 (3)</td>
<td>78.8 (21)</td>
<td>72.1 (81)</td>
<td>68.2 (11)</td>
<td>71.2 (93)</td>
<td>73.3 (0)</td>
</tr>
</tbody>
</table>

*Percentages are rates. IPA indicates independent practice association. P < .01 for differences between group- and staff-model plans and all other models except for receiving postpartum checkup within 42 days of delivery (P = .12).
†Includes mumps measles rubella, hepatitis B, tetanus diphtheria, and varicella if not immune.
‡Contraindication defined as International Classification of Diseases, 9th Revision diagnosis of insulin-dependent diabetes mellitus, asthma, heart block greater than first degree, sinus bradycardia, congestive heart failure, left ventricular dysfunction, or chronic obstructive pulmonary disease.

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Table 4. Multivariate Analysis* of Association of Investor Ownership With Quality-of-Care Indicators for 1996

<table>
<thead>
<tr>
<th>Parameter Estimate for Investor Ownership†</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immunization completion rate for 2-year-olds</td>
<td>−5.0 (−8.4 to −1.5)</td>
</tr>
<tr>
<td>Diphtheria pertussis tetanus (4 doses)</td>
<td>−5.0 (−8.4 to −1.5)</td>
</tr>
<tr>
<td>Oral polio virus (3 doses)</td>
<td>−4.3 (−7.4 to −1.2)</td>
</tr>
<tr>
<td>Mumps measles rubella (1 dose)</td>
<td>−4.3 (−6.6 to −2.0)</td>
</tr>
<tr>
<td>Haemophilus influenzae type B (3 doses)</td>
<td>−6.2 (−9.1 to −3.3)</td>
</tr>
<tr>
<td>Hepatitis B (3 doses)</td>
<td>−3.3 (−6.9 to 0.3)</td>
</tr>
<tr>
<td>All of the above</td>
<td>−5.2 (−9.2 to −1.2)</td>
</tr>
<tr>
<td>Immunization completion rate for 13-year-olds‡</td>
<td>−4.5 (−10.3 to 1.2)</td>
</tr>
<tr>
<td>Papilloma smear rate within 3 y for women aged 21-64 y</td>
<td>−6.6 (−9.4 to −3.7)</td>
</tr>
<tr>
<td>First trimester prenatal care rate</td>
<td>−4.5 (−8.0 to −1.0)</td>
</tr>
<tr>
<td>Women receiving postpartum checkup within 42 d of delivery</td>
<td>−4.8 (−10.4 to 0.9)</td>
</tr>
<tr>
<td>β-Blocker prescription filled for patients discharged after a myocardial infarction with no evidence of contraindication§</td>
<td>−6.5 (−13.2 to 0.1)</td>
</tr>
<tr>
<td>Patients with diabetes who are receiving insulin or oral hypoglycemic agent and who had an eye examination in past year</td>
<td>−9.7 (−13.0 to −6.3)</td>
</tr>
<tr>
<td>Rate of outpatient follow-up within 30 d for patients older than 6 y hospitalized with mental disorder</td>
<td>−5.6 (−10.2 to −0.9)</td>
</tr>
</tbody>
</table>

*Analysis controlled for health maintenance organization model type, data reporting method, and geographic region.
†Negative value indicates that investor-ownership predicts lower score. Values are expressed as change in rate associated with for-profit ownership (95% confidence interval).
‡Includes mumps measles rubella, hepatitis B, tetanus diphtheria, and varicella if not immune.
§Contraindication defined as International Classification of Diseases, 9th Revision diagnosis of insulin-dependent diabetes mellitus, asthma, heart block greater than first degree, sinus bradycardia, congestive heart failure, left ventricular dysfunction, or chronic obstructive pulmonary disease.

Indicators: (Table 3). Plans in New England scored better than plans in other regions for most indicators (data not shown).

In multivariate analyses controlling for model type, method of data collection, and region, investor ownership was consistently associated with poorer quality (Table 4). For instance, investor ownership was associated with decreases in rates of mammography of 4.8 percentage points and of eye examinations for patients with diabetes of 9.7 percentage points. As expected, plans that used the hybrid method for data collection tended to report higher rates (eg, 1.4% higher for mammography). Staff- and group-model types, as well as a location in New England, continued to predict higher quality for most quality indicators.

Total cost per member, per month averaged $128.00 in investor-owned plans vs $127.50 in not-for-profit plans (P = .88). The medical loss ratio (percentage of revenues spent on medical and hospital services) averaged 80.6% in investor-owned HMOs vs 86.9% in not-for-profit plans (P = .05). Hence, spending on profit and administrative overhead was about 48% higher in investor-owned plans (19.4% vs 13.1% for not-for-profit plans).

Comment

Investor-owned HMOs now dominate the managed care market. However, our study suggests that these plans are associated with reduced quality of care. Although total costs are similar in investor-owned and not-for-profit plans, the latter spend more on patient care. Group- and staff-model plans that offer better quality are also being eclipsed. The medical market is not rewarding quality and efficiency.

Our findings are consistent with the scant previous reports on the influence of investor ownership on HMO quality. An analysis of 1994 data from 76 HMOs found that investor-owned plans provided less preventive care. Comparisons of HMO quality published in popular magazines have reached similar conclusions. Investor-owned Medicare HMOs have higher disenrollment rates and lose more beneficiary appeals than not-for-profit plans. Physicians in Minneapolis rated care at a staff-model plan better than at 2 network model HMOs. A Centers for Disease Control and Prevention analysis of 4 preventive services, using HEDIS data that excluded Medicaid and Medicare recipients, found regional patterns similar to those we report.

Moreover, the differences we observed in this study appear to be clinically significant. For instance, all 23.7 million American women between ages 50 and 69 years were enrolled in investor-owned, rather than not-for-profit plans, an estimated 5925 additional breast cancer deaths would be expected (based on our finding of a 4.8% difference in screening rates, and previous estimates that biennial screening in this age group would result in 52 fewer breast cancer deaths by age 80 years per 10 000 women screened). Similarly, since β-blockers reduce death rates in myocardial infarction survivors by 23%, their underuse in investor-owned plans suggests that many such patients may die needlessly.

However, the HEDIS quality indicators we analyzed have serious shortcomings. No indicators appraise the outcomes of care. Most focus on relatively inexpensive preventive services and exclude patients who are not continuously enrolled. Few HEDIS measurements address care for seriously ill or chronically ill patients who are financially unattractive to HMOs and at risk for underservice. Medicare HMOs apparently encourage sick patients to disenroll and selectively recruit and enroll healthy individuals. Hence, our finding that the 2 quality indicators relevant to patients with serious medical illnesses showed the sharpest differences is particularly disturbing. Moreover, plans may narrowly focus quality improvement efforts on the few services that HEDIS assesses, causing an upward drift of HEDIS scores that may not accurately reflect global quality trends. For instance, HMO administrators may push clinicians to increase mammography rates, but deny them the time needed to perform optimal clinical breast examinations, patient educa-
tion, or other clinical activities that HEDIS does not measure. Hence, the usefulness of HEDIS quality indicators as surrogate measures of the global quality of care may deteriorate over time.

Despite these limitations, the data we analyzed are the best available currently. They encompass plans that account for more than half of the HMO enrollment in the United States. The data were collected and reported in standard formats and have been found accurate in federal audits. Unfortunately, even fewer data may be available in the future. In 1997 (the data that we analyzed, which reflects 1996 figures but was submitted in 1997) only 41 plans that submitted information to the NCQA declined to allow release of their data; in 1998, 155 plans refused data release.

Inaccurate reporting could explain our findings only if not-for-profit plans consistently inflated their quality measures while investor-owned HMOs did not. We cannot rule out the possibility that systematic differences in market characteristics, patients, physicians, HMO data systems, or other unmeasured confounders could influence our results.

Our findings are worrisome in light of previous research comparing the quality of care in HMO and fee-for-service settings. Most such comparisons examined care in not-for-profit group- and staff-model HMOs, which we found to have higher quality scores than the average plan. Moreover, the best of this research was carried out before market pressures forced non-profit HMOs to increase financial incentives and productivity pressures for physicians, abandon community rating, and implement other measures that mimic investor-owned plans.24,25 In these nonprofit, group- and staff-model HMOs of an earlier era, the average healthy patient received similar or slightly more preventive care, but vulnerable patients fared poorly.1,2,6-7 (eg, the risk of dying for sick, poor patients was increased by 21%).1

Our findings suggest that the decade-old experiment with market medicine is a failure. The drive for profit is compromising the quality of care, the number of uninsured persons is increasing, those with insurance are increasingly dissatisfied, bureaucracy is proliferating, and costs are again rapidly escalating. We believe national health insurance deserves a second look.21,42

Disclaimer: Data analyzed in this study were from NCQA’s Quality Compass and are published with the permission of the NCQA. The views expressed are those of the authors and not of NCQA.

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JAMA, July 14, 1999—Vol 281, No 2 163

QUALITY OF CARE IN HEALTH MAINTENANCE ORGANIZATIONS
In our society, some aspects of life are off-limits to commerce. We prohibit the selling of children and the buying of wives, juries, and kidneys. Tainted blood is an inevitable consequence of paying blood donors; even sophisticated laboratory tests cannot supplant the gift-giving relationship as a safeguard of the purity of blood. Like blood, health care is too precious, intimate, and corruptible to entrust to the market.

Introduction
The hospice movement in the United States is approximately 40 years old. During these past four decades, the concept of holistic, multidisciplinary care for patients (and their families) who are suffering from a terminal illness has evolved from a modest, grassroots constellation of primarily volunteer-run and community-governed endeavors to a multimillion dollar industry where the surviving nonprofits compete with for-profit providers, often publicly traded, managed by M.B.A.-trained executives, and governed by corporate boards. The relatively recent emergence of for-profit hospice reflects an increasing commercialization of health care in the United States, the potentially adverse impact of which has been well documented. Here we refer to the general threats against medicine’s ethical foundations that are made by health care organizations attempting to marry the “fundamental objective” of commerce, i.e., “achieving an excess of revenue over costs” so as to ensure profits for owners and investors, with the delivery of quality care to vulnerable consumers who are often compromised in their ability to make decisions. In the case of hospice, of course, the “customer” suffers from a terminal condition, which intensifies ethical concerns regarding the priority of the patient’s needs (ahead of profit-taking), the importance of dealing with patients “honestly, competently, and compassionately,” and the avoidance of any conflicts of interest “that could undermine public trust in the altruism of medicine.”

Infusing these ethical reflections, as is always the case either explicitly or implicitly in considerations of health care policy in the United States, are business concerns about how best to deliver services consistent with notions of free market competition and entrepreneurialism. As capitalism’s proponents have argued,

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profit incentives and commercial freedoms have promoted efficiencies and innovations across a wide diversity of industries. Health care, however, is unlike other commodities, and the U.S. market for health services is not an unadulterated market of purely private players. Rather, the health care of a nation is a matter of public concern, and taxpayers underwrite many of the direct costs. Desires to lower overall health care costs — always in tension with a variety of ethical considerations relating to individual patient care and public health — are theoretically shared by all partici-

Although published research in this area is limited, evidence indicates, as one would expect given the pressures to deliver a return on investment, that for-profit facilities, and especially publicly-traded chain providers, generate higher revenues than their nonprofit competitors. These cost savings and profit margins appear to flow primarily from business decisions relating to selective recruitment of a longer-term, increasingly non-cancerous, population of Medicare patients and the payment of lower salaries and benefits to less-skilled staff.

pents and stakeholders in the U.S. system, including patients, providers, investors, regulators, and taxpayers. Yet, the extent to which the Medicare hospice benefit and corresponding proliferation of hospice service providers has resulted in overall systemic cost savings in the end-of-life context (as was envisioned by the original policymakers) remains contested.8

However, specific financial comparisons between for-profit and nonprofit hospice providers have been more conclusive. Although published research in this area is limited, evidence indicates, as one would expect given the pressures to deliver a return on investment, that for-profit facilities, and especially publicly-traded chain providers, generate higher revenues than their nonprofit competitors.9 These cost savings and profit margins appear to flow primarily from business decisions relating to selective recruitment of a longer-term, increasingly non-cancerous, population of Medicare patients and the payment of lower salaries and benefits to less-skilled staff.10 Additionally, large chain hospice providers may realize further increased revenues as a result of efficiencies in their administration of regulatory processes and delivery of services across multi-state locations.11

Many patients and families experience hospice as a preferred pathway to dying well and a social consensus regarding the merits of hospice has been reached among many over the last few decades.12 This same time period has also been marked by the emergence of for-profit medicine and commercial interests as dominant trends in U.S. health care, which we address in Part I. In the last decade, this general trend in the direction of “market-driven medicine” has prompted the rapid rise of the for-profit hospice industry, as discussed in Part II of this article. Given the individual and social value that the nonprofit hospice sector has proven to be and the conflicting interests inherent in for-profit medicine, we wonder whether the original philosophy of hospice as embodied in its earliest nonprofit and community-based manifestations is potentially threatened by a creeping commercialism across the entire hospice industry. Indeed, hospice has always been “an attempt to transform the harmful practices of medicine-driven technology and profit” into a “compassionate caring” that restores a “sincere empathy, respect, and spiritual significance to the complex business of relieving suffering at the end of life.”13 Accordingly, Part III of this article raises critical questions rooted in ethical concerns that will require continuing vigilance and further study as the hospice industry confronts increasing pressures to provide holistic, quality care, and pain management for those who are dying, while balancing commercial considerations related either to maintaining merely sustainable margins in an increasingly competitive market or to satisfying investors and shareholders who seek to realize maximum profits from Medicare’s per diems.

Part I: The Emergence of For-Profit Health Care

Observers of the practice of medicine in America have been sounding alarms about the creeping commercialization of U.S. health care for at least the last 30 years. Writing in 1980, Arnold Relman, then editor of the New England Journal of Medicine, described what he alarmingly viewed as the “new medical-industrial complex” of for-profit corporations in the business of providing health care services to patients.14 Dr. Relman was particularly concerned about the emergence
of proprietary hospitals and nursing homes, as well as home care, diagnostic laboratory, and hemodialysis services.15

Hemodialysis, in fact, presented a “particularly interesting example of stimulation of private enterprise by public financing of health care.”16 Relman was referring to the rapid expansion of the patient population receiving long-term hemodialysis following Congress’s decision in 1972 to cover treatment of end-stage renal disease under Medicare.17 Fueled by the flow of federal funds, the for-profit dialysis industry mushroomed from nearly non-existent in the early 1970s to a 40% market share by 1980.18 By 2002, 75% of dialysis services were provided by private, for-profit facilities, and early fears about compromises in patient care were being realized in the form of increased risk for premature patient death.19 Similarly, more recent research seems to confirm that Medicare erythropoietin (or EPO, a drug used to treat anemia resulting from kidney disease) reimbursements — the second-largest source of dialysis facility income — are incentivizing large, for-profit chain facilities to administer dosages of the drug in excess of the clinical guidelines.20

Writing for the Institute of Medicine in 1983, Bradford Gray outlined the controversy surrounding the widespread emergence of for-profit medicine during the 1970s.21 Proponents of the investor-owned trend in health care heralded the efficiencies, innovations, and fiscal discipline associated with business management practices designed to grow market share and maximize profits consistent with free market principles.22 Critics, however, argued that large and enduring percentages of uninsured and underinsured Americans evidenced market failure. They argued that conflicts of interest are constitutive of for-profit business models that are premised upon financial incentives designed to encourage ever-expanding consumption of finite and expensive goods.23 Such conflicts of interest have, for example, resulted in well-documented cases of unnecessary medical services and treatments, often bloating systemic health care costs at tax-payers’ expense.24 In extreme cases, pressures to meet profit goals and satisfy investor expectations have resulted in fraud prosecutions of for-profit health care providers, most infamously realized in the cases of Tenet Healthcare and Healthcare Corporation of America (HCA), although the nonprofit sector has not been immune from government prosecution arising out of illicit reimbursement practices.25 It is precisely because of congressional cost concerns related to fraudulent billing and other improper over-utilization of Medicare-reimbursable services that anti-kickback legislation, the Stark laws, enforcement of the False Claims Act, and other regulatory efforts have proliferated from the mid-1970s through the most recent health care reforms of 2010.26

Additionally, the emergence over the last 30 years of for-profit health providers has prompted concerns about whether ownership status has any correlation to the quality of care provided. On this point the case of nursing homes is illustrative. Relatively consistent data indicate that differences in care do exist between for-profit and nonprofit nursing home providers “as measured by staffing ratios, quality-of-care and quality of life deficiencies, advance care planning discussions, complaints per home, and, in some cases, adverse health outcomes.”27 The conflicting interests inherent in the incentive structures of for-profit health care endeavors demand careful scrutiny. This is particularly important in the end-of-life hospice context, to which we now turn our attention.

Part II: Rise of the For-Profit Hospice Industry

The modern hospice movement traces its origins to the mid-20th century work of physician Dame Cicely Saunders, who founded St. Christopher’s Hospice in 1967 in a suburb of London.28 The hospice concept was imported to America by Florence Wald, the dean of the Yale School of Nursing, who invited Dame Saunders to teach the concepts of holistic treatment of patients’ physical, spiritual, and psychological well-being at Yale in the late 1960s. At the same time, the work of Dr. Elizabeth Kubler-Ross was recalibrating social understandings of death and arguing that perhaps death did not have to be seen as the failure of medicine to keep a patient alive.29 Out of Kubler-Ross’s work, the “right” of patients to participate in decisions impacting their death process began to gain traction.30

All of this, of course, emerged during a time in which physician paternalism was still the dominant ethos and emerging end-of-life medical technologies were fostering liminal conditions — “twilight zones of suspended animation where death commences while
life, in some form, continues” — in which the possibility of postponing death was creating novel bioethical dilemmas.

Nevertheless, the earliest American hospices were “small, volunteer dominated community-based programs which provided spiritual support and palliative care to terminal patients and their families,” and they began to spread rapidly during the 1970s. While fewer than 60 hospices existed in 1978, that number had expanded to over 400 by 1981 and the movement soon captured the attention of policymakers in Washington.

Congress created the Medicare hospice benefit in 1982 for patients diagnosed as “terminally ill.” To qualify for the benefit, a patient’s attending physician, as well as the hospice physician, must certify that the patient has “a life expectancy of 6 months or less.” For hospice providers caring for a terminally ill patient, the federal benefit pays a fixed per diem. The amount of the daily rate is determined by the appropriate category of care required by the patient: (1) routine home care; (2) continuous home care; (3) inpatient respite care; or, (4) general inpatient care. Importantly, however, the daily rate is paid by Medicare regardless of the services actually provided by the hospice provider on any given day and even if no services are provided. Services covered include nursing care, physician services, pain management, medical social services, counseling (including bereavement services), physical therapy, occupational therapy, speech-language pathology, dietary counseling services, and homemaking services.

According to Greer and Mor, leaders of the pioneering National Hospice Study, this legislation emerged at the behest of dual constituencies: care givers and entrepreneurs. Care givers, particularly non-M.D. professionals, desired a legal mandate requiring that hospice services be built around interdisciplinary teams, including volunteers, spiritual counselors, and other “low-technology providers.” Entrepreneurs, on the other hand, envisioned the development of “profit-making hospice chains” and lobbied for the benefit on the basis that it would create a new opportunity to further the competitive, proprietary interests that Relman had characterized as the emerging “new medical-industrial complex” just two years earlier. As early as 1985, Greer and Mor worried that the “smaller, volunteer-oriented hospices, which have contributed significantly to the image of hospice in our country, may be unable to survive in a commercialized environment.”

Throughout the 1990s, the per diem rates paid by Medicare steadily increased, as end-of-life issues, including advanced directives and palliative care, received greater attention from researchers, health care practitioners, and public policy officials. By 2006, approximately 40% of Medicare beneficiaries who died were cared for during their final days or weeks of life under the auspices of a hospice program where specialists working in interdisciplinary teams treated their symptoms, relieved their pain, and provided a range of therapeutic services and other types of support, including, housekeeping duties for those electing to die at home.

As originally conceived, there was “a strong expectation that hospice services would result in lower costs to the Medicare program than conventional medical interventions at the end of life.” Yet, as with every other sector of the health care economy, hospice costs have risen at alarming rates in recent years. According to the Government Accountability Office, between 1992 and 2002, “Medicare payments for hospice care increased fivefold, to about $4.5 billion,...the number of Medicare patients increased fourfold, to approximately 640,000,...[and] the number of Medicare-participating hospices grew by almost 90 percent to 2,275.”

Just six years later, hospice expenditures more than doubled to exceed $11 billion, Medicare beneficiaries receiving hospice services (for increasingly longer periods of time) topped one million, and the number of hospice locations rose to greater than 3,300, with for-profit providers accounting “almost entirely” for this increase. In fact, from 2001 to 2008, the for-profit hospice industry grew 128 percent, while the nonprofit hospice sector only grew by 1 percent and government-owned hospice grew by 25 percent. The result of these trends is that now approximately 52 percent of hospices are for-profit, 35 percent are nonprofit, and 13 percent are owned by the government.

Given this shifting ownership landscape and the forecasts for continued growth in patient population and federal reimbursements, we are troubled by the potential for ethical compromises as the delivery of hospice services becomes an increasingly commercial endeavor. To those concerns we now turn.

**Part III: Questioning the Commercialization of Hospice**

As originally conceived, hospice was marked by a holistic approach to patient care, animated by altruistic motivations that placed ultimate priority on care for the dying individual and her family. The concept has been accepted and embraced by large segments of the American public and policymakers because its hallmark practices are understood to be rational and compassionate components of end-of-life health care. Yet, the increasing dominance of for-profit providers, beholden to the expectations of investors, introduces a
profit-making concern that threatens to compete with patient care for ultimate priority. Perhaps the dual goals of profit-taking and care-giving can be aligned theoretically in ways that neither would be compromised. But in the actual business practices of for-profit managers and care decisions of for-profit providers, there is at a minimum some cause for heightened scrutiny.

**How Do For-Profit Hospice Providers Market Their Services and Recruit Their “Customers”?**

In recent years the media have begun to report anecdotally about the manner in which some hospice providers have so successfully grown their business. For instance, VITAS Hospice Services, LLC, the largest provider of hospice services in the United States (operating 46 facilities across 15 states and the District of Columbia), reportedly sends its patient recruiters into nursing homes equipped with pens and coffee cups for staff and then pays a commission to those recruiters who successfully sign-up patients for VITAS’s services. A rival hospice provider was indicted for allegedly paying nursing home operators $10 per day to assist in patient recruitment efforts and paying physicians $89 a month to certify patients as hospice eligible without examining the patient or reviewing medical records. The extent to which some hospice providers may be employing “community education representatives” to market hospice services and recruit hospice patients demands vigilance in the form of either industry self-policing or government oversight. In fact, the latter option was recommended in 2009 by the Medicare Payment Advisory Commission (MedPAC), which said the Office of Investigator General should investigate “financial relationships between hospices and long-term care facilities [ ] that may represent a conflict of interest and influence admissions to hospice;...the appropriateness of enrollment practices...; [and] the appropriateness of hospice marketing materials and other admissions practices.”

Hospice-eligible patients, by definition, are facing a relatively imminent death. In this context, many patients and their family-member advocates are experiencing myriad emotions potentially compromising their judgment and ability to comprehend the implications of entering into hospice. Given these heightened vulnerabilities, potential hospice candidates are more susceptible to unscrupulous marketing techniques and over-promising with regard to services that will be provided. If a patient recruiter stands to personally benefit in the form of a commission or bonus for reaching and maintaining enrollment goals, such an incentive potentially conflicts with the candor required for a potential hospice patient to make an informed decision about whether to forego continued curative medical treatments, a necessary condition of enrollment in hospice.

Moreover, concerns exist over whether hospice providers, regardless of ownership structure, intentionally select patients who are likely to have longer lengths of stay and thus result in the generation of greater revenues. Because of Medicare’s current payment policy, which pays the same flat rate per diem (regardless of the patient’s specific terminal illness), a tempting incentive is created to target patients who will require less expensive care over a longer period of time. As a 2009 MedPAC report to Congress noted, “A strong correlation exists between length of hospice stay and profitability.... The concern is that some new hospice providers, which are predominantly for-profit, may be pursuing a business model based on maximizing length of stay and thus profitability.” The 2008 MedPAC report found that “hospices with longer lengths of stay are more profitable [because] length of stay in a for-profit hospice is about 45% longer than the length of stay in a not-for-profit facility.” While seemingly counterintuitive, it turns out that the longer a patient remains in hospice, the less costly it is for the provider to care for her because over the course of a lengthy hospice arrangement, the patient’s baseline of necessary care becomes less rigorous and time intensive. The current Medicare policy makes sense if one considers that hospice was designed to offer only palliative, not curative, treatment. When the Medicare benefit was created in 1982, the concept of palliative medicine was not disease specific. Therefore, while the revenue from federal reimbursements remains constant, costs associated with patient care do not. As Lindrooth and Weisbrod illustrate, hospice costs during approximately the first four days of patient care are relatively high, due to the additional time required to transition a patient and relevant family members into the hospice program and attend to their emotional and physical needs. Likewise, a patient’s final days prior to death are relatively more time and resource intensive, and therefore more costly.

During the intervening time period, however, costs of care are relatively lower and constant. Of course, these intermediary costs escalate in the context of patients requiring more expensive palliative care, such as chemotherapy, radiation, or recreational services, which explains why hospice providers needing to keep investors satisfied, seeking to realize a profit, or simply struggling to maintain a margin that will sustain the organization’s mission, are rationally tempted to selectively recruit patients with non-cancer diagnoses, for example. This “U-shaped” cost function and lin-
ear revenue stream creates a “financial incentive for all hospices...to maximize the duration” of a patient’s stay in order to distribute the higher costs at the beginning and end of treatment and increase overall profits.\textsuperscript{59}

Although MedPAC has called for an adjustment to the reimbursement structure that would pay relatively more per day for those higher costs associated with the entrance of a patient into hospice and for those higher costs associated with the patient’s death, these payment changes will not be implemented before 2013.\textsuperscript{60} Meanwhile, the current per diem paid by Medicare remains constant throughout a patient’s stay, regardless of how much time is actually devoted to patient care and the delivery of hospice services.\textsuperscript{61}

Without changes to the current reimbursement structure, coupled with measures to ensure greater accountability in the use of these benefits, we are concerned about the potential for a more dominant hospice provider to serve selectively a higher percentage of patients with a non-cancer diagnosis. The patient population at such a hospice could thereby average significantly longer and more lucrative periods of time during which the provider would realize a great return on the Medicare per diem payments for those patients, while potentially shifting a disproportionate share of the more costly short-term patients to hospice providers with a broader commitment to a community beyond those with an ownership interest.\textsuperscript{62}

While all hospice providers, regardless of ownership status, are incentivized to “game” the system according to the current reimbursement policy, Lindrooth and Weisbrod analyzed admission data at 104 for-profit and 534 religious nonprofit hospice providers over a three-year period in an effort to determine whether patterns in patient selection could be identified. Their data demonstrate that for-profit hospices — more so than the religious nonprofit hospices they also studied — respond to the Medicare reimbursement incentive by selectively admitting patients with primary diagnoses, recent curative care, and ages that would suggest probabilities for a longer life trajectory, and correspondingly higher profits.\textsuperscript{63}

Additional data published by Lorenz et al. examined 67 for-profit hospices and 109 nonprofit hospices operating in California to determine whether patterns in patient population could be determined.\textsuperscript{64} This study concluded that for-profit hospice providers treat a disproportionate number of patients who were either previously in a long-term care facility and/or suffer with a non-cancer diagnosis. Moreover, these researchers confirmed that a higher percentage of for-profit patients do in fact remain in hospice longer than 90 days.\textsuperscript{65}

Longer stays, of course, are not intrinsically problematic. Indeed, getting a patient into hospice for a longer and more managed death process can be more conducive to the holistic and comprehensive care for both patient and family that hospice promises. Recent research also suggests greater systematic cost savings can result from longer stays in hospice.\textsuperscript{66} Moreover, a variety of reasons unrelated to fraudulent or nefarious practices may explain differences in enrollment patterns, including a good faith effort on the part of for-profit providers to include terminal, non-cancer patients who have been traditionally under-represented among hospice populations.\textsuperscript{67}

Do Commercial Concerns Compromise the Quality of Care Delivered by Hospice Providers?

Interdisciplinary, coordinated care has been a hallmark of the hospice philosophy of holistic end-of-life care since the movement’s inception. Moreover, government reimbursement via Medicare is conditioned upon the hospice organization’s provision of a team that includes at least one physician, one reg-
istered nurse, and one social worker. The inclusion of such expertise is necessary to coordinate the medical, psychological, and social components of hospice care “core services” as described in federal law, which pursuant to an individual patient’s written plan, must include availability to physician services, skilled nursing care, dietary or nutritional services, psychological counseling (including bereavement therapy), spiritual care, and medical social services. “Noncore” services include physical therapy, speech therapy, occupational therapy, continuous home care, and household/home-maker services. Hospice providers, however, have discretion with regard to staffing specifics.

At least one study has demonstrated that staffing patterns do differ among hospice providers in ways that correlate to ownership status, although no correlations established patterns of adverse or compromised patient care. The research noted above by Lorenz et al. examining California hospices in the late 1990s also found that for-profit hospices provided a mix of overall less-skilled nursing care, but failed to establish whether quality of patient care in general suffered as a result of these staffing decisions. In fact, this same study found “no significant difference in the actual number of skilled nursing visits per patient day provided by for-profit hospices (0.33) versus not-for-profit hospices (0.35).”

More recent data from researchers at Yale found “substantial variation by hospice ownership type in the patterns of interdisciplinary staff.” Again, while correlations to adverse impact on quality of care were not proven, the study did find that for-profit hospice facilities typically employ less expensive labor, including fewer registered nurses, fewer medical social workers, and fewer clinicians.

In addition to staffing differences, other research suggests that patterns of care do differ among hospice providers with different ownership structures, although, again, evidence of wide-spread adverse or compromised patient care does not exist. However, when adjustments are made for differences in patient diagnosis, disability, gender, and other variables, patients of for-profit hospices have been shown to receive significantly fewer types of services than do patients of nonprofit hospices, including continuous home care and bereavement services. Due to the difficulties in assessing the relative value of specific services to individual patients, even these limited studies fail to establish an overall diminished quality of care at for-profit providers. However, these findings did prompt one set of researchers to speculate regarding how differences in “origin” influence the hospice endeavor:

One possible interpretation [for why for-profits provide a narrower range of services when compared with nonprofit hospices] is that the different patterns of care are the result of the differing origins of the for-profit and nonprofit hospice. The traditional, nonprofit hospice emerged as a philosophy of care that emphasized psychosocial support, spiritual care, the use of volunteers and family, and symptom management. The for-profit hospices that have emerged more recently, however, might not be as strongly rooted in this traditional hospice philosophy.

To be clear, Carlson et al. are not suggesting that evidence exists of inferior care at for-profit hospice providers. Rather, these researchers are highlighting the reality that a more commercialized, entrepreneurial approach to hospice may privilege business practices and financial responsibilities to investors in ways that challenge their concomitant commitment to ethical health services and duties to patients. Again, while the financial bottom line driving for-profit hospice providers is the creation of profits, this pressure may not be all that different from that facing the nonprofit hospice provider attempting to bolster enough revenues not only to keep the doors open, but also to expand services and maintain competitive employee compensation. The quote above by Carlson et al., however, reminds us that business management principles focused on increasing market share, reducing labor costs, and creating economies of scale may become problematic to the extent they threaten to compromise the death experience of the patient, i.e., the “traditional hospice philosophy.” To be sure, more data examining potentially negative correlations between business practices and patient care are needed.

Conclusion

Charles F. von Gunten, editor-in-chief of the Journal of Palliative Medicine, recently opined that perhaps “there really is no difference in the care delivered by hospices of differing tax status,” and therefore, on the question of profit versus not-for-profit, he concluded: “Who cares?” Von Gunten’s position was bolstered by the recognition that current data defining quality and measuring outcomes in the realm of hospice support neither the demonization nor the canonization of either ownership structure. To be sure, our review of the literature confirms the necessity of more sophisticated studies of business practices and patient care throughout the hospice industry, with a keen eye trained on how ethical issues are addressed when they intersect with commercial interests and financial incentives.
The concerns raised in this article, particularly regarding recruitment of patients and patterns of patient care, are intended to highlight ethical conflicts suggested by an increasingly commercialized health services marketplace that is infused with large sums of federal money accompanied by increased regulatory oversight. Yet, a number of questions suggest the importance of continued research, deliberation, and oversight in this area: Will the patient’s experience of hospice services (as envisioned by Dame Saunders, i.e., marked by a fundamentally altruistic system of organization and governance) be compromised by the practices of profit-driven competition and additional costs associated with government regulation? What non-financial costs may be borne by patients, their family, and hospice providers if the hospice industry’s traditional emphasis on principles of community welfare maximization cannot be reconciled to more individual notions of profit maximization? How, in ways that are not unnecessarily paternalistic, will the hospice industry guard against the exploitation of an unsuspecting population that is particularly vulnerable? The challenge for medical professionals, health care businesspersons, academic researchers, policymakers, and government regulators going forward will be to address these questions in a manner that will preserve the spirit of hospice as it was originally envisioned and as it has come to be understood, experienced, and relied upon by much of the public.

Acknowledgements
Authors are indebted to the constructive feedback on earlier drafts received from Larry Churchill, anonymous peer reviewers, and the editors of this symposium issue, most notably Thad Pope. Research assistance was provided by Justin Agans and Andrew Leishman.

References


3. Id. (McArthur and Moore), at 886. See also I. R. Byock, “Ethics from a Hospice Perspective,” American Journal of Hospice & Palliative Care 11, no. 4 (1994): 9-11, at 9 (“Ethical considerations are central to hospice practice. Unlike many areas of medicine in which it is the occasional case that presents an apparent ethical dilemma, care at the end of life is full of ethically poignant and emotionally charged situations.”). The potentially crippling impact of illness upon patients seeking information and making decisions about their health care is comprehensively summarized by M. A. Hall and C. E. Schneider in “Patients as Consumers: Courts, Contracts, and the New Medical Marketplace,” Michigan Law Review 106, no. 4 (2008): 643-689 (“Illness disables…pains…exhausts…erodes control…enforces dependence…disorients…baffles…terrifies…and isolates.”). See Relman, supra note 2, at 2668.

4. See Rodwin, supra note 2, at 387-395.


See infra notes 43-47 and accompanying text.

15. Although the hospice movement was gaining considerable traction by 1980, the concept of for-profit entities offering hospice services was not yet on the radar. This would begin to change in 1983 with the passage of the Tax Equity and Fiscal Responsibility Act of 1982. See infra notes 28-47 and accompanying text.

16. See Reisman, supra note 14, at 965.

17. Id.

18. Id. Although not as rapidly, the for-profit hospice industry would likewise experience dramatic growth during the decades following Congress’s decision to create a Medicare hospice benefit. See infra notes 43-47 and accompanying text.


24. J. F. Blumstein, “The Fraud and Abuse Statute in an Evolving Health Care Marketplace: Life in the Health Care Speakasy,” American Journal Law & Medicine 22, no. 2-3 (1996): 205-231, at 207. Professor Blumstein cites numerous studies confirming the overutilization that results from perverse economic incentives. See, generally, Office of the Inspector Gen., Dept. of Health & Human Serv., Financial Arrangements Between Physicians and Health Care Businesses, Medicare & Medicaid Guide ¶ 57:838, at 573 (May 1988) (“To Medicare patients of referring physicians who owned clinical laboratory received forty-five percent more clinical laboratory services than all Medicare patients in general.”); General Accounting Office, Referrals to Physician-Owned Imaging Facilities Warrant HCFA’s Scrutiny, GAO/HHS-95-2, at 10 (1994); and B. J. Hillman et al., “Frequency and Costs of Diagnostic Imaging in Office Practice – A Comparison of Self-Referring and Radiologist-Referring Physicians,” New England Journal of Medicine 323, no. 23 (1990): 1604-1608, at 1604 (“Studies of the use of diagnostic imaging equipment done in 1990 and 1994 showed that patients of physicians who had an ownership interest in such equipment utilized the same equipment 400% more than the patients of nonowning physicians.”); J. M. Mitchell and E. Scott, “Physician Ownership of Physical Therapy Services: Effects on Charges, Utilization, Profits, and Service Characteristics,” JAMA 268, no. 15 (1992): 2055-2059, at 2057 (“Physicians having ownership interests in physical therapy clinics or radiation therapy centers similarly recommended patient visits to such facilities fifty percent more than did other physicians.”) Additionally, Marc Rodwin’s book, Medicine, Money, and Morals: Physicians’ Conflicts of Interests (1993) includes copious evidence of ways in which physician self-interest results in Medicare abuse. For example, see Rodwin at 97 (citing a December 17, 1987, personal letter from Jim Codo, a medical lab who claimed that “where a high percentage of Medicare recipients reside, there is a correspondingly high percent of physicians invested in laboratory ownership arrangements. The government in allowing such [practices]...might as well issue the physician owners their own money press. The physician controls the demand for services, owns the supply of the services, and is guaranteed payment for services by the government.”) and 215 (citing to 18 published studies by academic researchers and government regulators between 1970 and 1992 as evidence “that physicians who make referrals to medical facilities that they either own or have a financial interest in recommend more (or more expensive) medical tests and procedures than do physicians without a financial interest.”).
vides a cautionary tale, well documented by Dr. Marcia Angel, former editor of the New England Journal of Medicine, in her 2004 book The Truth about the Drug Companies. The hard sell, unquestionably accurate information, and gift incentives can go a long way toward building market share, but not necessarily toward empowering a potential patient to make a decision that is in her best interest and consistent with the hospice philosophy.

52. See MedPAC (2010), supra note 45, at 144 and 147. The report notes that financial incentives "may have led to inappropriate utilization of the benefit among some hospices."

53. Landis v. Hospice Care of Kansas, 2010 U.S. Dist. LEXIS 129484, *6 (D. Kan. Dec. 7, 2010) (alleging business practices at Hospice Care of Kansas that included "setting aggressive census targets for each HCK branch office; staff incentives and monetary bonuses for meeting the aggressive census targets; threatening staff with terminations or reductions in hours if the census fell below targets; instructing staff to inaccurately document the condition of patients to make them appear appropriate for hospice and to avoid detection . . . implementing procedures that delayed the discharge or made it difficult to discharge ineligible patients; challenging or ignoring staff and physician recommendations to discharge patients; and disregarding or ignoring compliance concerns raised by an outside consultant" and resulted in "admission, retention, and submission of claims to Medicare for patients that were ineligible for the hospice benefit.)"


57. H. A. Huskamp et al., "Variation in Patients’ Hospice Costs," Inquiry 45, no. 2 (2008): 232-244, at 241 ("Our results suggest that average per day costs were markedly higher for stays of one or two days than for longer stays, and that total costs for longer stays increased at a decreasing rate as the length of stay increased.")


enroll patients with dementia and other noncancer diagnoses, resulting in patterns of patient selection that leave "nonprofit hospice agencies disproportionately caring for the most costly patients – those with cancer and those tending to begin hospice very late in their course of illness; as a result, those hospices serving the neediest patients may face difficult financial obstacles to providing appropriate care in this fixed per-diem payment system."

63. See Lindrooth and Weisbrod, supra note 56, at 351-355. See MedPAC (2010), supra note 45, at 151 ("[P]roviders that exceeded the hospice cap, appeared to have a higher prevalence of long-stay patients across all diagnoses, suggesting some patient selection may be at work.")

64. See Lorenz, et al., supra note 58, at 511.

65. Accord Wachterman, supra note 54, at 478 ("For-profit hospices had significantly more patients with stays exceeding 365 days and fewer patients with stays less than 7 days."). See generally S. Ohri, Essays in Health Economics (2007) (unpublished Ph.D. dissertation, Univ. of CA, Irvine) (on file with authors).


68. 42 U.S.C. Sec. 1395x (dd) (2) (B).

69. 42 U.S.C. Sec. 1395x (dd) (1) (A) – (H); Code of Federal Regulations 418.64.

70. Code of Federal Regulations 418.70 – 418.78.


72. See Lorenz et al., supra note 58, at 511-512. See also S. M. O’Neill, S. L. Ettner, and K. A. Lorenz, "Paying the Price at the End of Life: A Consideration of Factors That Affect the Profitability of Hospice," Journal of Palliative Medicine 11, no. 7 (2008): 1002-1008. This follow-up study published in 2008 found that for-profit hospice providers incur lower costs than non-profit providers and that some of these cost savings may be attributable to differences in staffing. However, differences in quality outcomes could not be identified, and the researchers called for future research examining "variation in [length-of-stay, nursing intensity, and provider skill mix] with patient clinical outcomes." Id., at 1007.

73. See Kinzbrunner, supra note 67, at 484.


75. See Cherlin et al., supra note 74, at 393. These findings are echoed by empirical data in "Economic Incentives in the Hospice Care Setting: A Comparison of For-Profit and Nonprofit Providers," an unpublished manuscript by K. Noe and D. A. Forgione dated December 17, 2009 (on file with the authors).


77. See Carlson, Gallo, & Bradley, supra note 71, at 437.


79. See Cerminara, supra note 66 (discussing provisions of The Patient Protection and Affordable Care Act that will require stricter monitoring processes designed to hold hospice providers more accountable, but which may also result in compliance burdens too great for small, rural hospice providers to satisfy).
Quality of care in for-profit and not-for-profit nursing homes: systematic review and meta-analysis

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Abstract

Objective To compare quality of care in for-profit and not-for-profit nursing homes.

Design Systematic review and meta-analysis of observational studies and randomised controlled trials investigating quality of care in for-profit versus not-for-profit nursing homes.

Results A comprehensive search yielded 8827 citations, of which 956 were judged appropriate for full text review. Study characteristics and results of 82 articles that met inclusion criteria were summarised, and results for the four most frequently reported quality measures were pooled. Included studies reported results dating from 1965 to 2003. In 40 studies, all statistically significant comparisons (P<0.05) favoured not-for-profit facilities; in three studies, all statistically significant comparisons favoured for-profit facilities, and the remaining studies had less consistent findings. Meta-analyses suggested that not-for-profit facilities delivered higher quality care than did for-profit facilities for two of the four most frequently reported quality measures: more or higher quality staffing (ratio of effect 1.11, 95% confidence interval 1.07 to 1.14, P<0.001) and lower pressure ulcer prevalence (odds ratio 0.91, 95% confidence interval 0.83 to 0.98, P=0.02). Non-significant results favouring not-for-profit homes were found for the two other most frequently used measures: physical restraint use (odds ratio 0.93, 0.82 to 1.05, P=0.25) and fewer deficiencies in governmental regulatory assessments (ratio of effect 0.90, 0.78 to 1.04, P=0.17).

Conclusions This systematic review and meta-analysis of the evidence suggests that, on average, not-for-profit nursing homes deliver higher quality care than do for-profit nursing homes. Many factors may, however, influence this relation in the case of individual institutions.

Introduction

Nursing homes provide long term housing, support, and 24 hour nursing care for people who are unable to function independently. Conservative forecasts from the European Union suggest that the need for nursing home care will double in the next 40 years as the population ages. Many nursing home residents are bound to the routines, diets, and treatments prescribed by the home where they reside. In addition, many of them are unable to advocate for themselves because of physical, medical, cognitive, or financial limitations.

Concerns about quality of care in nursing homes are widespread among academic investigators, the lay press, and policy makers. Whether a facility is owned by a for-profit or a not-for-profit organisation may affect structure, process, and outcome determinants of quality of care. In the United States, for example, two thirds of nursing homes are investor owned, for-profit institutions; in the United Kingdom, more than half of healthcare beds belong to independent nursing homes for older people, most of which are operated by for-profit institutions. The type of ownership of nursing homes in Europe varies; countries with previously dominant public healthcare systems (such as Poland) now seek privatisation. In Canada, 52% of nursing homes are in for-profit ownership, and not-for-profit care is evenly split between charitable or privately owned not-for-profit facilities and government or publicly owned not-for-profit facilities. Both for-profit and not-for-profit nursing homes may have both public and private funding.

Several investigators have assessed the relation between for-profit/not-for-profit status and quality of care. If quality or appropriateness of care varies significantly by ownership, this should influence government policies related to regulatory assessments and the use of public funds for nursing homes. The objective of this systematic review and meta-analysis was to examine the quality of care in for-profit and not-for-profit (privately and publicly owned) nursing homes to enhance the evidence base for public policy. This work is part of our series of systematic reviews...
Evaluation of quality of studies used in meta-analyses: appropriate and inappropriate adjustments

**Appropriate adjustments (0-5)**

One point for each of:
- Having an adjusted analysis
- Adjusting for age
- Adjusting for severity of illness (comorbidities)
- Adjusting for presence or absence or severity of dementia
- Adjusting for payment status of residents (government funded v privately funded)

**Inappropriate adjustments (yes/no)**

Yes for adjusting for potential quality of care measures (that is, elements used to assess quality of care in a different study, such as pressure ulcer, restraint use, urinary catheterisation, staffing, or regulatory agency citations)

Comparing health outcomes, quality and appropriateness of care, and payment for care in for-profit and not-for-profit care delivery institutions.17-19

**METHODS**

**Search strategy**

We used a multimodal search strategy focused on 18 bibliographical databases, personal files, consultation with experts, reviews of references of eligible articles, and searches of PubMed (for related articles) and SciSearch (for articles citing key publications).

A medical librarian (NB) used medical subject heading terms and keywords from a preliminary search to develop database search strategies. In each database, the librarian used an iterative process to refine the search strategy through testing several search terms and incorporating new search terms as new relevant citations were identified. The search included the following databases from inception to April 2006: Medline, Embase, HealthSTAR, CINAHL, Cochrane Database of Systematic Reviews, Database of Abstracts of Reviews of Effects, Cochrane Central Database of Controlled Trials, NHS Economic Evaluation Database, AgeLine, Web of Science, Proquest Dissertations and Theses, ABI/INFORM Global, CB CA Reference, EconLit, Proquest European Business, PAIS International, and Worldwide Political Science Abstracts. Search terms included nursing home specific terms (such as nursing homes, homes for the aged, long-term care) combined with ownership terms (such as proprietary, investor, for-profit, and competition).

The web appendix gives a complete description of our database search strategies.

**Study selection**

**Eligibility criteria**

Our inclusion criteria were as follows: patients—those residing in nursing homes in any jurisdiction; intervention—for-profit status of the institutions; comparator—not-for-profit status; and outcomes—measures of quality of care in for-profit and not-for-profit nursing homes.

**Definition of quality of care**

As described by the American Medical Association, quality of care is “care that consistently contributes to the improvement or maintenance of quality and/or duration of life.”20 Quality of care was conceptualised by Donebedian as having inter-related structure, process, and outcome components.21 Structure pertains to resources used in care (such as staffing). Process refers to action on the patient (such as use of restraint and urethral catheterisation). Outcome indicators assess the patient’s end result (such as pressure ulcers). Many quality of care instruments have been proposed, although none has been universally accepted.22 Consequently, we used measures that authors defined as representing “quality of care” or “appropriateness of care,” provided that they defined a priori what constituted “good” or “poor” quality of care. The most frequently used quality measures were as follows.

**Number of staff per resident or level of training of staff**—The US Medicare/Medicaid nursing home regulations emphasise the importance of this measure of structure.23 Studies have consistently shown a positive association between staffing and measures of both process and outcome quality.24-26

**Physical restraints**—Although use of physical restraints can prevent patients from injuring themselves, restraints diminish a patient’s self esteem and dignity. By restricting mobility, they lead to both physical deterioration and the formation of painful pressure ulcers.24-27 An Institute of Medicine report emphasised use of restraints as an important process measure.23

**Pressure ulcers**—The importance of this outcome quality measure was also stressed by the Institute of Medicine. Pressure ulcers are preventable and are associated with pain and infection risk.23

**Regulatory (government survey) deficiencies**—Deficiency citations by a regulatory body cover many aspects of...
nursing home care. Their strength lies in providing an overall measure of quality. Considerable work has gone into developing valid overall deficiency measures.4

**Definition of nursing home**

In keeping with other definitions,28 we defined a nursing home as a home for elderly people in which most residents require daily nursing care. We included all long term care facilities that met this definition, including those studies that specifically evaluated “skilled nursing facilities” and special care facilities such as those for patients with Alzheimer’s disease.

**Assessment of study eligibility**

Teams of two reviewers independently screened the titles and abstracts of all citations identified in our search, and if either reviewer thought that a citation might be eligible we retrieved the study for full text review. Research personnel who were not involved in the screening or data abstraction process masked the study results from the text and tables of potentially eligible articles by using a black marker. Teams of two reviewers independently evaluated each masked article to determine eligibility. All disagreements were resolved by consensus, with discussions with the project lead (VRC) about eligibility criteria as required. In the event of ambiguity about whether the outcome was a measure of quality of care, we erred on the side of being inclusive.

**Data extraction and study quality evaluation**

Multiple teams of two reviewers independently abstracted data from included articles. We collected data on geographical area, year, data source, unit of measurement (number of residents or nursing homes), and quality of care measure. We developed and applied a 0-5 scale for evaluating appropriate adjustments and a yes/no scale for inappropriate adjustments (box). We explored whether appropriate and inappropriate

<table>
<thead>
<tr>
<th>Quality of care measure</th>
<th>Summary of study characteristics</th>
<th>All statistically significant comparisons favoured NFP</th>
<th>Most statistically significant comparisons favoured NFP</th>
<th>Mixed results or direction unclear</th>
<th>Most statistically significant comparisons favoured FP</th>
<th>All statistically significant comparisons favoured FP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality overall with any quality of care measure (FP v NFP)</td>
<td>82 studies with data from 1965-2003 (1 from Australia, 5 from Canada, 1 from Taiwan, 74 from United States); 15 collected primary data, and 1 supplemented primary data with government survey data</td>
<td>40</td>
<td>2</td>
<td>37</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Quality overall with any quality of care measure (FP v private NFP)</td>
<td>34 studies with data from 1965-2003 (1 from Australia, 1 from Canada, 38 from United States); 3 collected primary data, and 1 supplemented primary data with government survey data</td>
<td>16</td>
<td>2</td>
<td>16</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>More, or more extensively trained, staff</td>
<td>23 comparisons with data from 1965-2003 (2 from Canada, 21 from United States)</td>
<td>16</td>
<td>0</td>
<td>7</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

FP=for-profit; NFP=not-for-profit.
*Studies were classified into three categories: “all significant differences favour one ownership type” (at least one outcome with P<0.05 favoured either FP or NFP and all outcomes with P<0.05 favoured the same ownership—that is, all favoured NFP or all favoured FP); “most, but not all, significant differences favoured one ownership type” (at least four quality measures with P<0.05 and three times as many outcomes with P<0.05 favoured one ownership than favoured the other); “mixed results” (all other results).

**Table 2 | Number of studies with quality of care comparisons favouring particular ownerships: other results**

<table>
<thead>
<tr>
<th>Quality of care measure</th>
<th>Summary of study characteristics</th>
<th>Favoured NFP (P&lt;0.05)</th>
<th>Non-significantly favoured NFP</th>
<th>Direction unclear</th>
<th>Non-significantly favoured FP</th>
<th>Favoured FP (P&lt;0.05)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower pressure ulcer prevalence</td>
<td>24 comparisons with data from 1984-2003 (1 from Canada, 23 from United States)</td>
<td>7</td>
<td>10</td>
<td>3</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Lower physical restraint prevalence</td>
<td>21 comparisons with data from 1987-2003 (all from United States)</td>
<td>10</td>
<td>4</td>
<td>0</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Fewer deficiencies on government surveys</td>
<td>19 comparisons with data from 1976-2003 (all from United States)</td>
<td>10</td>
<td>5</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Lower urethral catheterisation prevalence</td>
<td>10 comparisons with data from 1984-2003 (all from United States)</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Lower mortality</td>
<td>4 comparisons with data from 1984-99 (1 from Canada, 3 from United States)</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Lower psychoactive drug use prevalence</td>
<td>4 comparisons with data from 1997-2003 (all from United States)</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>More feeding tubes</td>
<td>3 comparisons with data from 1990-9 (all from United States)</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Lower hospital admission rate</td>
<td>3 comparisons with data from 1994-9 (1 from Canada, 2 from United States)</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

FP=for-profit; NFP=not-for-profit.
*Single overall comparisons were made for each of pressure ulcer, physical restraint, and deficiency outcomes, rather than multiple comparisons being made within the same study.
Table 3 | Characteristics of studies comparing private for-profit and private not-for-profit nursing home quality of care

<table>
<thead>
<tr>
<th>Study</th>
<th>Place; year; data source*; No of residents or nursing homes</th>
<th>Factors controlled or adjusted for</th>
<th>Appropriate: age, severity of illness, severity of dementia, and payment status adjustments</th>
<th>Inappropriate: quality measures used in other studies; measures of intensity of care</th>
</tr>
</thead>
<tbody>
<tr>
<td>Levey et al 1973w11</td>
<td>Massachusetts; 1965 and 1969; state public health department; 129 homes in each year</td>
<td>Payment status</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Cohen and Dubay 1990w22</td>
<td>United States; 1981; MMACs; 694 FP and 235 private NFP homes</td>
<td>Severity of illness (long term care index of function), dementia (% confused or disoriented), payment status (% of Medicare patients in facility)</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Elwell 1984w43</td>
<td>New York state; 1976; Residential Health Care Facilities Report (NY); 258 FP and 130 private NFP homes</td>
<td>Severity of illness (ADLs), dementia (proportion of residents with totally impaired alertness), payment status (proportion of days paid for by Medicaid)</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Lee 1984w44</td>
<td>Iowa; 1980-1; Iowa Department of Health; 254 FP and 103 private NFP homes</td>
<td>Unadjusted analysis</td>
<td>Unadjusted analysis</td>
<td></td>
</tr>
<tr>
<td>Wiersbrod and Schlesinger 1986w5</td>
<td>Wisconsin; 1976; State Division of Health; 220 FP and 134 private NFP homes</td>
<td>Adjusted analysis but none of 4 selected appropriate factors included</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Lemke and Moos 1989w6</td>
<td>United States; year not listed; research nurses; 44 FP and 44 private NFP homes</td>
<td>Unadjusted analysis</td>
<td>Unadjusted analysis</td>
<td></td>
</tr>
<tr>
<td>Pearson et al 1992w7</td>
<td>Australia; 1988-90; authors collected data; 120 FP and 80 private NFP homes</td>
<td>Severity of illness (% of high need residents)</td>
<td>Staffing (% of nurses who were RNs)</td>
<td></td>
</tr>
<tr>
<td>Graber 1993w8</td>
<td>North Carolina; 1991; OSCAR; 167 FP and 14 private NFP homes</td>
<td>Unadjusted analysis</td>
<td>Unadjusted analysis</td>
<td></td>
</tr>
<tr>
<td>Aaronson et al 1994w9</td>
<td>Pennsylvania; 1987; MMACs; 269 FP and 180 private NFP homes</td>
<td>Varied by analysis: staffing—severity of illness (long term care index of resident function), payment status; pressure sores—age (% aged ≥85), severity of illness (long term care index of resident function), payment status; restraint use—dementia (proportion of confused patients paid for 100 beds), payment status (Medicaid use rate)</td>
<td>Varied by analysis: staffing—none; pressure sores—restraint use; restraint use—RN to resident ratio</td>
<td></td>
</tr>
<tr>
<td>Moseley 1994w10</td>
<td>Virginia; 1983-5; state medical assistance services using long-term care information system; 174 homes with 2362 FP and 787 private NFP residents</td>
<td>Age, severity of illness (ADLs), dementia (oriented/disoriented)</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Sainfort et al 1999w13</td>
<td>Wisconsin; 1982; research teams; 44 FP and 46 private NFP homes</td>
<td>Unadjusted analysis</td>
<td>Unadjusted analysis</td>
<td></td>
</tr>
<tr>
<td>Holmes 1996w12</td>
<td>Michigan; 1989; MMACs; 275 FP and 60 private NFP homes</td>
<td>Severity of illness (ADLs), payment status (% Medicaid paid days), dementia (% of residents with cognitive deficiencies)</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Johnson-Pawson and Infeld 1996w13</td>
<td>Maryland; 1991-2; OSCAR; 137 FP and 55 private NFP homes</td>
<td>Severity of illness (ADLs), payment status (% of residents covered by Medicare)</td>
<td>Staffing (RN and full time equivalent nurse positions/patient)</td>
<td></td>
</tr>
<tr>
<td>Spector and Fortinsky 1998w14</td>
<td>Ohio; 1994; MDS; 843 homes</td>
<td>Age, dementia (cognitive performance)</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Spector et al 1998w15</td>
<td>United States; 1987; NMES; 1695 FP and 535 private NFP homes</td>
<td>Age, dementia, payment status (Medicaid coverage %)</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Hughes et al 2000w16</td>
<td>Continental United States; 1997; OSCAR; 10 666 FP and 3342 private NFP homes</td>
<td>Dementia, payment status</td>
<td>Staffing (in facility model), antidepressant drug use</td>
<td></td>
</tr>
<tr>
<td>Troyer 2001w17</td>
<td>Florida; 1994-6; OSCAR; unclear</td>
<td>Payment status (private pay/Medicaid/Medicare funding)</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Chou 2002w18</td>
<td>United States; 1984-94; NLCTS; 1770 FP and 1044 private NFP residents</td>
<td>Age, severity of illness (ADLs, before admission), dementia (cognitive score on admission)</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Harrington et al 2002w19</td>
<td>United States; 1997-8; OSCAR; 9009 FP and 3789 private NFP homes</td>
<td>Severity of illness (ADLs), dementia (in secondary analysis only), payment status (% Medicaid residents)</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Grabowski and Hirth 2003w20</td>
<td>United States; 1995; OSCAR; 11 174 FP and 4688 private NFP homes</td>
<td>Severity of illness (ADLs), payment status</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Berta et al 2004w21</td>
<td>Ontario; 1996-2002; RCFS; not clear</td>
<td>Unadjusted analysis</td>
<td>Unadjusted analysis</td>
<td></td>
</tr>
<tr>
<td>Grabowski and Angiulli 2004w22</td>
<td>United States; 1998-2000; OSCAR and MDS; 9478 FP and 3434 private NFP homes</td>
<td>Adjusted analysis but none of 4 selected appropriate factors included</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Grabowski and Castle 2004w23</td>
<td>United States; 1991-9; OSCAR; 18 432 homes, selecting those with 5 consecutive yearly assessments with upper and lower quartile scores for each quality measure</td>
<td>Unadjusted analysis</td>
<td>Unadjusted analysis</td>
<td></td>
</tr>
<tr>
<td>Grabowski 2004w24</td>
<td>Continental United States; 1996; MEPS and OSCAR; 815 homes, with 1856 FP and 673 private NFP residents</td>
<td>Age, severity of illness (ADLs), dementia, payment status</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Grabowski et al 2004w25</td>
<td>United States; 1998-9; MDS and OSCAR; 15 128 homes (13 819 for daily pain information, 13 169 for pressure ulcer information, 13 859 for physical restraint information)</td>
<td>Adjusted analysis but none of 4 selected appropriate factors included</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Konetzka et al 2004w26</td>
<td>United States; 1996-2000; OSCAR; 11 968 FP and 5077 private NFP homes</td>
<td>Severity of illness (ADLs, dementia (% with), payment status (% private pay)</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Konetzka et al 2004w27</td>
<td>United States; 1996; MEPS; 529 FP and 192 private NFP residents</td>
<td>Severity of illness (ADL dependence), dementia (cognitive performance), payment status (payer source)</td>
<td>Staffing (RNs and LPNs/100 residents, nursing assistants/100 residents)</td>
<td></td>
</tr>
</tbody>
</table>
adjustment explained heterogeneity. Disagreements were resolved by consensus, with consultation of a third investigator when resolution could not be achieved.

**Statistical analysis**

Many studies had for-profit versus not-for-profit comparisons including multiple measures of quality of care. When summarising results, we classified studies into three categories. (1) All statistically significant differences favoured one ownership type—studies fulfilled two requirements: at least one outcome with $P<0.05$ favoured either for-profit or not-for-profit and all outcomes with $P<0.05$ favoured the same funding structure (that is, all favour not-for-profit or all favour for-profit). (2) “Most but not all significant differences favoured one ownership type”—studies fulfilled two requirements: at least four quality measures had $P<0.05$ and three times as many outcomes with $P<0.05$ favour one ownership as favour the other. (3) “Mixed results”—all other results.

We pooled outcomes using random effects models separately for the most frequently used quality of care measures: number of staff or level of training of staff, pressure ulcers, physical restraints, and regulatory (government survey) deficiencies. We considered $P<0.05$ to be statistically significant.

We used prevalence, rather than incidence, in reporting physical restraint use and pressure ulcers based on authors’ reporting of study outcomes. We report the odds ratios and 95% confidence intervals for these outcomes. When necessary, we converted other effect measures to odds ratios by using available data. For example, if the study reported a relative risk (RR) and the event proportion in for-profit nursing homes ($P_{fp}$), the odds ratios was calculated as $(RR = (1 − P_{fp})/(1 − P_{fp} × RR))$. Similarly, when the studies presented a $\beta$ coefficient (an adjusted result representing difference in event proportions in for-profit and not-for-profit nursing homes, $P_{fp} − P_{nfp}$), if the event proportion ($P_c$) in the study population and sample sizes ($N_{fp}$ and $N_{nfp}$) of the nursing homes in for-profit and not-for-profit were provided, solving the following two equations for $P_{nfp}$ and $P_{fp}$, we computed the odds ratio: $P_{fp} × N_{fp} + P_{nfp} × N_{nfp})/(N_{fp} + N_{nfp}) = P_c$. For the outcomes of deficiencies and staffing, we used the ratio of the effect from not-for-profit to for-profit nursing homes in pooling studies.

We avoided repetition of data on the same resident from different studies by preferentially using data from the larger dataset when necessary. One author (GHG) made these decisions by using blinded copies of articles while unaware of study outcomes. We requested supplemental data when available data was insufficient for analysis. We evaluated heterogeneity with both a $\chi^2$ test and the $I^2$ statistic, interpreting a low $I^2$ as 25% or lower and a high $I^2$ as 75% or higher. We examined funnel plots for evidence of publication bias. We applied a univariate meta-regression random effects model to each pooled outcome to evaluate potential sources of heterogeneity.

**Hypotheses to explain heterogeneity**

Our a priori hypotheses for sources of potential heterogeneity included analysis of privately owned and publicly owned nursing facilities in the same category, appropriate and inappropriate adjustments, the year of data collection, geography and political environment, and primary compared with secondary data collection. We did univariate meta-regression for each potential cause of heterogeneity. We present subgroup results if the likelihood of the differences between subgroups being due to chance was $P<0.10$. Our a priori
### Table 4: Quality of care measures and outcomes of studies comparing private for-profit and private not-for-profit nursing homes (favoured directions represent those with higher quality care)

<table>
<thead>
<tr>
<th>Study</th>
<th>Quality measure</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Levey et al 1973</td>
<td>Dietary options; doctor's order book showing activity; nursing kardex showing activity; activities for patients' availability (religious, recreation); patients' records being complete; personal care availability; physical plant utilities; restorative services availability; staffing—No of nursing shifts not covered per week, licensed nursing hours, total nursing hours</td>
<td>Mixed results: not significant for all measures (direction not noted)</td>
</tr>
<tr>
<td>Cohen and Dubay 1990</td>
<td>Staffing—RNs, LPNs per bed</td>
<td>Mixed results: non-significantly favoured private NFP</td>
</tr>
<tr>
<td>Elwell 1984</td>
<td>Multi-bed rooms (proportion of patients in them); staffing—allied health hours/resident/day, nursing hours/resident/day, physician hours/resident/week, RN hours/resident/day</td>
<td>Most significant comparisons favoured private NFP: having fewer multi-bed rooms favoured FP (P&lt;0.001); all other measures favoured private NFP (P&lt;0.025)</td>
</tr>
<tr>
<td>Lee 1984</td>
<td>Nursing and personal care delivery index (by inspection and resident interviews on 17 items); quarterly care review completion; residents' satisfaction by interview; room conditions ratings by inspection; staffing—staff/resident ratio</td>
<td>Mixed results: resident satisfaction by interview and room conditions by inspection favoured FP (P&lt;0.05); favoured private NFP for quarterly care review completion and staffing; non-significantly favoured private NFP for nursing and personal care delivery (P&lt;0.077)</td>
</tr>
<tr>
<td>Wiesbroad and Schlesinger 1986</td>
<td>Deficiencies in Wisconsin licensing survey</td>
<td>Mixed results: non-significantly favoured private NFP for church owned homes; non-significantly favoured FP for non-church owned (P&lt;0.1)</td>
</tr>
<tr>
<td>Lemke and Moos 1989</td>
<td>Service availability; staff richness; staffing—No of full time equivalent staff members/resident; subjective comfort; subjective control; subjective rapport; subjective resident autonomy; subjective security</td>
<td>All significant (P&lt;0.05) comparisons favoured private NFP: only significant difference was for subjective rapport, which favoured private NFP; private NFP also offered more comfortable physical environment and more health services</td>
</tr>
<tr>
<td>Pearson et al 1992</td>
<td>Freedom of choice; healthcare treatment; home-like environment; privacy and dignity; social independence; variety of experience</td>
<td>All significant (P&lt;0.05) comparisons favoured private NFP: non-significantly favoured private NFP for having healthcare treatment, privacy, and dignity; favoured private NFP for all others</td>
</tr>
<tr>
<td>Graber 1993</td>
<td>Deficiencies in OSCAR; ombudsman office complaints</td>
<td>All significant (P&lt;0.05) comparisons favoured private NFP: non-significantly favoured private NFP overall; non-significantly favoured private NFP for deficiencies, but significantly favoured private NFP for complaints (P&lt;0.01)</td>
</tr>
<tr>
<td>Aaronson et al 1994</td>
<td>Pressure ulcer prevalence; restraint use prevalence; staffing—RNs, LPNs, and aides per 100 beds</td>
<td>Mixed results: favoured FP for pressure ulcer (P&lt;0.05); favoured private NFP for staffing (P&lt;0.05); non-significantly favoured private NFP for restraint use</td>
</tr>
<tr>
<td>Moseley 1994</td>
<td>Composite measure of inappropriate care (underprovision of routine medical care, skilled nursing care, and physical therapy or overprovision of psychotropic drugs, physical restraints, or urinary catheterisation); functional improvement over 9 months</td>
<td>All significant (P&lt;0.05) comparisons favoured private NFP: favoured private NFP (P&lt;0.001) for composite measure; non-significantly favoured private NFP for functional improvement</td>
</tr>
<tr>
<td>Sainfort et al 1995</td>
<td>Outcome based quality such as grooming, mood, awareness of condition, physical condition, promotion of family ties, continuity of lifestyle; process based quality such as plan of care, medical records, planning and evaluation, admission/transfer, residents' influence, staff's attitudes to residents, staff communication, communication between residents, variety/adequacy of activities, match of residents to activities, volunteer programme, meal variety/presentation, nutrition/diet</td>
<td>Mixed results: non-significantly favoured private NFP for outcome measures; difference not stated for process measures</td>
</tr>
<tr>
<td>Holmes 1996</td>
<td>Deficiencies in MMACS per facility</td>
<td>Favoured private NFP (P value not stated)</td>
</tr>
<tr>
<td>Johnson-Pawson and Infeld 1996</td>
<td>Deficiencies in Long-Term Care Survey</td>
<td>Non-significantly favoured private NFP</td>
</tr>
<tr>
<td>Spector and Fortinsky 1998</td>
<td>Pressure ulcer prevalence</td>
<td>Non-significantly favoured private NFP</td>
</tr>
<tr>
<td>Spector et al 1998</td>
<td>Functional disability at year end; hospital admission incidence; infection prevalence; mortality during 1987; pressure ulcer prevalence</td>
<td>All significant (P&lt;0.05) comparisons favoured private NFP: non-significantly favoured FP for functional disability and hospital admission incidence; non-significantly favoured private NFP for pressure ulcer prevalence; favoured private NFP for infection prevalence (P&lt;0.05); non-significantly favoured private NFP for mortality (P&lt;0.01)</td>
</tr>
<tr>
<td>Hughes et al 2000</td>
<td>Psychotropic drug use (use is poorer quality than no use); deficiencies in OSCAR per resident day; staffing—No of RN hours/day, total No of nursing hours per patient day</td>
<td>Favoured private NFP (for all measures) (P&lt;0.001)</td>
</tr>
<tr>
<td>Troyer 2001</td>
<td>Deficiencies in OSCAR per resident day</td>
<td>Favoured private NFP</td>
</tr>
<tr>
<td>Chou 2002</td>
<td>Mortality; prevalence of dehydration, pressure ulcers, and urinary tract infection</td>
<td>Mixed results: non-significantly favoured private NFP for all measures except pressure ulcer prevalence, which non-significantly favoured FP</td>
</tr>
<tr>
<td>Harrington et al 2002</td>
<td>Deficiencies in OSCAR (quality care)*; staffing—(RN + LVN/LPN hours/resident day and nursing assistant hours/resident day</td>
<td>Favoured private NFP for all three measures</td>
</tr>
<tr>
<td>Grabowski and Hirth 2003</td>
<td>Prevalence of feeding tube, pressure ulcers, restraint use, and urinary catheterisation; staffing—proportion of total staff who are RNs, total nurse staff/resident/day</td>
<td>Most significant comparisons favoured private NFP: favoured private NFP (P&lt;0.01) for all measures except urinary catheterisation prevalence, which favoured FP (P&lt;0.01)</td>
</tr>
<tr>
<td>Berta et al 2004</td>
<td>Staffing—RN + nursing assistant hours/resident/day, other direct care staff hours/resident/day</td>
<td>Favoured private NFP (P&lt;0.05) in comparison of FP and (private NFP + public + FP) for all measures</td>
</tr>
<tr>
<td>Grabowski and Angelelli 2004</td>
<td>Pain reported by residents; pressure ulcer prevalence; restraint use prevalence</td>
<td>Mixed results: favoured FP (P&lt;0.05) for pain reported by residents and restraint use prevalence; favoured private NFP for pressure ulcer prevalence</td>
</tr>
<tr>
<td>Grabowski and Castle 2004</td>
<td>Prevalence of feeding tube, pressure ulcers, restraint use, and urinary catheterisation</td>
<td>Mixed results: favoured private NFP (P&lt;0.001) for consistently poor quality homes for each measure; favoured FP (P&lt;0.001) for consistently good quality homes for each quality measure</td>
</tr>
<tr>
<td>Grabowski 2004</td>
<td>Deficiencies in health/quality of care in OSCAR</td>
<td>Non-significantly favoured FP</td>
</tr>
</tbody>
</table>

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*Note: Table adapted for clarity and readability.*
### Study Characteristics and Outcomes

<table>
<thead>
<tr>
<th>Study</th>
<th>Quality measure</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grabowski et al 2004&lt;sup&gt;34&lt;/sup&gt;</td>
<td>Pressure ulcer prevalence</td>
<td>FAVOURED PRIVATE NFP (P &lt; 0.05)</td>
</tr>
<tr>
<td>Konetzka et al 2004&lt;sup&gt;25&lt;/sup&gt;</td>
<td>Deficiencies in OSCAR; staffing—nursing assistant hours/resident day, RN hours/resident day</td>
<td>ALL SIGNIFICANT (P &lt; 0.05) COMPARISONS FAVOURED PRIVATE NFP</td>
</tr>
<tr>
<td>Konetzka et al 2004&lt;sup&gt;37&lt;/sup&gt;</td>
<td>Transfer to hospital rate for patients with pneumonia</td>
<td>FAVOURED PRIVATE NFP (P &lt; 0.01)</td>
</tr>
<tr>
<td>Lapane and Hughes 2004&lt;sup&gt;28&lt;/sup&gt;</td>
<td>Depression treatment prevalence—assessed by antidepressant use and specifically by SSRI use</td>
<td>NON-SIGNIFICANTLY FAVOURED FP FOR BOTH MEASURES</td>
</tr>
<tr>
<td>Lapane and Hughes 2004&lt;sup&gt;29&lt;/sup&gt;</td>
<td>Depression treatment prevalence—assessed by antidepressant use and specifically by use of antidepressants other than tricyclic antidepressants</td>
<td>ALL SIGNIFICANT (P &lt; 0.05) COMPARISONS FAVOURED PRIVATE NFP: FAVOURED PRIVATE NFP (P &lt; 0.05) FOR ANTIDEPRESSANT USE, AND NON-SIGNIFICANTLY FAVOURED PRIVATE NFP FOR NOT USING TRICYCLIC ANTIDEPRESSANTS</td>
</tr>
<tr>
<td>Rantz et al 2004&lt;sup&gt;30&lt;/sup&gt;</td>
<td>Performance on MDS quality indicators, confirmed by research nurses</td>
<td>NON-SIGNIFICANTLY FAVOURED PRIVATE NFP</td>
</tr>
<tr>
<td>Zhang and Grabowski 2004&lt;sup&gt;35&lt;/sup&gt;</td>
<td>Prevalence of pressure ulcers, restraint use, and urinary catheterisation</td>
<td>ALL SIGNIFICANT (P &lt; 0.05) COMPARISONS FAVOURED PRIVATE NFP: FAVOURED PRIVATE NFP FOR ALL MEASURES (P &lt; 0.001) EXCEPT RESTRAINT USE PREVALENCE, WHICH NON-SIGNIFICANTLY FAVOURED PRIVATE NFP</td>
</tr>
<tr>
<td>Akinci and Krolikowski 2005&lt;sup&gt;32&lt;/sup&gt;</td>
<td>Deficiencies in quality of care in Pennsylvania database; staffing—certified nursing assistant hours/day, LPN/LVN hours/day, RN hours/day, total staff hours/day</td>
<td>ALL SIGNIFICANT (P &lt; 0.05) COMPARISONS FAVOURED PRIVATE NFP: NON-SIGNIFICANTLY FAVOURED PRIVATE NFP (P &lt; 0.05) FOR DEFICIENCIES, CERTIFIED NURSING ASSISTANT HOURS, AND LPN/LVN HOURS; FAVOURED PRIVATE NFP FOR RN HOURS AND TOTAL STAFF HOURS</td>
</tr>
<tr>
<td>Bardenheier et al 2005&lt;sup&gt;31&lt;/sup&gt;</td>
<td>Vaccination for pneumococcus (% of homes)</td>
<td>NON-SIGNIFICANTLY FAVOURED PRIVATE NFP</td>
</tr>
<tr>
<td>Zinn et al 2005&lt;sup&gt;34&lt;/sup&gt;</td>
<td>Prevalence of infection, pain, pressure ulcers, pressure ulcers adjusted for facility admission profile or loss of ADLs, and restraint use</td>
<td>MIXED RESULTS: FAVOURED PRIVATE NFP (P &lt; 0.1) FOR ALL MEASURES EXCEPT PAIN PREVALENCE, WHICH FAVOURED FP (P &lt; 0.01)</td>
</tr>
</tbody>
</table>

ADLs = activities of daily living; FP = for profit; LPN = licensed practical nurse; LVN = licensed vocational nurse; MDS = minimum data set survey; NFP = not for profit; OSCAR = Online Survey Certification and Reporting; RN = registered nurse; SSRI = selective serotonin reuptake inhibitor.

*Related to resident assessment, quality of nursing services, dietary services, physician services, rehabilitative services, dental services, pharmacy services, and infection control.

### Hypotheses and Analysis

**Hypothesizing privately owned not-for-profit facilities in the same category**—We hypothesised that privately owned not-for-profit facilities may deliver superior care compared with publicly owned facilities, and thus comparisons between not-for-profit and for-profit facilities may yield different results if publicly owned facilities are included, as seen in previous studies. We decided, a priori, to present the result of a for-profit versus privately owned not-for-profit meta-analysis separately from a for-profit versus not-for-profit meta-analysis regardless of whether privately or publicly owned not-for-profit status explained heterogeneity of the pooled estimate.

**Extent of appropriate and inappropriate adjustment**—We have defined concepts of appropriate and inappropriate adjustment in the data extraction section above. We compared studies with above median scores against those with scores below the median for assessment of appropriateness. Similarly, we compared studies with inappropriate adjustment against those without inappropriate adjustment, excluding studies that did not have an adjusted analysis.

**Year of data collection**—Legislation on quality of care in nursing homes was introduced in the United States under the Federal Nursing Home Reform Act (part of Omnibus Budget Reconciliation, 1987). Most of the studies we reviewed were from the United States. As a result, we compared data collected before and during 1987 versus after 1987.

**Geography**—We compared data collected inside and outside the United States, as geography and political environment are potential sources of heterogeneity.

**Primary versus secondary data collection**—We compared data acquired by primary (direct) data collection with those acquired by secondary (administrative agency) data collection.

### Results

Of the 8827 articles screened, we selected 956 for blinded full text review. Figure 1 details the steps in this review. Our agreement on the eligibility of studies was very good ($\kappa = 0.73$ on the basis of two questions: does the study evaluate nursing homes, and does the study compare quality of care in for-profit and not-for-profit facilities?). Disagreements stemmed from implied but not stated definitions in the articles regarding good and poor quality and implied but not stated quality of care measures. We requested supplementary data from 36 authors; 25 responded, of whom three did new analyses in response to our queries.

We found 82 studies, spanning 1963 to 2003, comparing for-profit and not-for-profit nursing homes.<sup>1-12</sup> We found 40 studies in which all statistically significant analyses ($P < 0.05$) favoured not-for-profit homes and three in which all statistically significant analyses favoured for-profit homes. Similarly, 34 studies compared for-profit and privately owned not-for-profit nursing homes. In 16 of these, all statistically significant comparisons favoured higher quality in privately owned not-for-profit homes; none had all statistically significant analyses favouring higher quality in for-profit homes.

Tables 1 and 2 present a summary of the characteristics and outcomes of all studies included in this review and summarise the results of comparisons for quality measures evaluated by three or more studies. Tables 3 and 4 present the detailed study characteristics and
Table 5 | Characteristics of studies comparing for-profit and not-for-profit nursing home quality of care (public and private NFP homes)

<table>
<thead>
<tr>
<th>Study</th>
<th>Place; year; data source;</th>
<th>No of residents or nursing homes</th>
<th>Appropriate: age, severity of illness, severity of dementia, and payment status adjustments</th>
<th>Inappropriate: quality measures used in other studies; measures of intensity of care</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winn 1994w35</td>
<td>Washington state; 1971; mailed questionnaire to administrators; 24 FP, 24 NFP</td>
<td>Unadjusted analysis</td>
<td>Unadjusted analysis</td>
<td></td>
</tr>
<tr>
<td>Riportella-Muller and Slesinger 1982w36</td>
<td>Wisconsin; July 1977-June 1978; Wisconsin Department of Health and Wisconsin Nursing Homes Ombudsman Program; 462 homes</td>
<td>Adjusted analysis but none of 4 selected appropriate factors included</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Nyman 1984w37</td>
<td>Wisconsin; 1978-9; 1979 Wisconsin Nursing Home Survey, Quality Assurance Project Pre-test, and Cost-Quality Study database; 88 cases of nursing home violations (No of nursing homes not indicated)</td>
<td>Payment source; severity of illness (need for intermediate, personal, or residential care by payment source)</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Brusetti et al 1990w38</td>
<td>North Carolina; 1987; surveys to nursing home administrators; 216 nursing homes (164 FP, 40 NFP)</td>
<td>Certification (Medicare only, Medicaid only, or Medicare and Medicaid)</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Munroe 1990w39</td>
<td>California; 3 December 1985 to 30 December 1986; Office of Statewide Health Planning and Development of California; 455 homes</td>
<td>Illness severity (ADLs/IADLs); payment status</td>
<td>Proportions of residents with catheters and decubiti; ratio of RN to LVN hours per resident day</td>
<td></td>
</tr>
<tr>
<td>Cherry 1991w40</td>
<td>Missouri; 1984; Missouri State Board of Health; 134 homes</td>
<td>Payment status</td>
<td>RN, LPN, aide hours per resident</td>
<td></td>
</tr>
<tr>
<td>Kanda and Mezey 1991w41</td>
<td>Pennsylvania; 1980, 1982, 1985, 1987; Long Term Care Facilities Survey conducted by State Health Data Center, Pennsylvania Department of Health; 407 homes for 1980, 395 for 1982, 395 for 1985, 461 for 1987</td>
<td>Age of residents (in RN staffing comparison, when each year was analysed separately)</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Cherry 1993w42</td>
<td>Missouri; 1984; Missouri Division of Aging Routine Inspections and Missouri State Board of Health; 210 nursing homes</td>
<td>Adjusted analysis but none of 4 selected appropriate factors included</td>
<td>Nurse ratio</td>
<td></td>
</tr>
<tr>
<td>Zinn et al 1993w43</td>
<td>Pennsylvania; 1987; MMACs, Pennsylvania Long Term Care Facility Questionnaire; 438 homes</td>
<td>Payment status</td>
<td>RNs per resident</td>
<td></td>
</tr>
<tr>
<td>Zinn 1993w44</td>
<td>46 continental US states; 1987; AHCA and MMACS; approximately 14,000 homes</td>
<td>% private pay; % confused; % Medicare; functional severity index</td>
<td>RN, LPN aide staffing; rate of catheter use, restraint use, and tube feeding</td>
<td></td>
</tr>
<tr>
<td>Graber and Sloane 1995w45</td>
<td>North Carolina; 1991; OSCAR, North Carolina Division of Medical Assistance, Office of State Health Planning; 195 homes</td>
<td>Illness severity (% intubated patients, facility disability level, % with incontinent residents)</td>
<td>RN ratio; LVN/nursing assistant ratio; % of residents on psychotropic drugs</td>
<td></td>
</tr>
<tr>
<td>Christensen and Beaver 1996w46</td>
<td>Oregon; 1991-4; Oregon Board of Examiners of Nursing Home Administrators and State surveyors reports; 147 nursing homes (37 NFP or government and 110 FP)</td>
<td>Unadjusted analysis</td>
<td>Unadjusted analysis</td>
<td></td>
</tr>
<tr>
<td>Mukamel 1997w47</td>
<td>New York (excluding New York City); 1986-90; New York State Department of Health; approximately 550 homes, 42.3% of residents in proprietary homes, 39.9% of residents in involuntary NFP homes, 17.8% in public homes</td>
<td>Unadjusted analysis</td>
<td>Unadjusted analysis</td>
<td></td>
</tr>
<tr>
<td>Anderson et al 1998w48</td>
<td>Texas; 1990; Texas Medicare Nursing Facility Cost Reports and Client Assessment, Review, and Evaluation form; 494 nursing homes</td>
<td>% of private pay</td>
<td>RN, LPN, aide staffing</td>
<td></td>
</tr>
<tr>
<td>Blissmer et al 1998w49</td>
<td>Minnesota; 1988-91; Minnesota Department of Human Services Long-Term Care Division facility profiles and assessments of residents by RNs; 4103 residents in 1988, 4676 residents in 1989, and 4672 residents in 1990</td>
<td>Age</td>
<td>Compliance with regulations</td>
<td></td>
</tr>
<tr>
<td>Castle and Fogel 1998w50</td>
<td>United States; 1995; OSCAR, ARF; 15,074 homes</td>
<td>Illness severity (ADLs, incontinent bladder/bowel); payment status</td>
<td>Psychotropic drug use; staffing (high/medium/low RNs, LPNs, nursing assistants per resident)</td>
<td></td>
</tr>
<tr>
<td>Anderson and Lawhorne 1999w51</td>
<td>Advance care directive prevalence; feeding tube prevalence; drug errors noted on survey; pressure ulcer prevalence; restraint use prevalence; staffing—direct care hours per resident per day; urinary catheterisation prevalence</td>
<td>All significant (P&lt;0.05) comparisons favoured NFP: non-significantly favoured NFP for drug errors, non-significantly favoured FP for restraint use prevalence; favoured NFP for all other comparisons</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Bravo et al 1999w52</td>
<td>Eastern townships of Quebec (Canada); 1996; resident interviews; 301 residents from 88 nursing homes</td>
<td>Age; cognitive functioning (MMMS score); functional autonomy (SMAF score)</td>
<td>Staff to resident ratio</td>
<td></td>
</tr>
<tr>
<td>Castle 1999w53</td>
<td>CA, CT, IA, MD, MA, OH, OR, TN, TX, and VA; 1990 and 1993, Resident Assessment Instrument and OSCAR; 268 facilities (90% in each cohort FP)</td>
<td>Age; ADLs; severity of illness; severity of dementia; payment status</td>
<td>Staffing levels</td>
<td></td>
</tr>
<tr>
<td>Ballou 2000w54</td>
<td>Wisconsin; 1987-95; Wisconsin Centre for Health Statistics and Wisconsin Bureau of Quality Assurance</td>
<td>Unadjusted analysis</td>
<td>Unadjusted analysis</td>
<td></td>
</tr>
<tr>
<td>Castle 2000w55</td>
<td>United States; 1997; OSCAR; 17,024 homes</td>
<td>Dementia; ADLs</td>
<td>Staffing (RNs, LPNs, nurse aides, specialists per resident and nurse aide training); pressure ulcer incidence; urinary catheterisation; use of psychoactive drugs</td>
<td></td>
</tr>
<tr>
<td>Castle 2001w56</td>
<td>United States; 1992 and 1997; OSCAR; 15,455 homes in 1992; 16,533 homes in 1997</td>
<td>ADLs; payment status</td>
<td>Staffing (RNs, LPNs, nurse aides, rehabilitation assistants per 100 beds); antipsychotic drug use; residents with psychiatric problems</td>
<td></td>
</tr>
<tr>
<td>Castle 2001w57</td>
<td>United States; 1999; OSCAR; 420 nursing facilities and OSCAR 1999 (~16,000 homes)</td>
<td>ADLs; dementia; payment status</td>
<td>Catheterisation; psychoactive drug use; physical restraint use; pressure ulcers; psychological disorders</td>
<td></td>
</tr>
<tr>
<td>Castle 2001w58</td>
<td>United States; 1997; OSCAR; 16,871 homes</td>
<td>Age; ADLs</td>
<td>None</td>
<td></td>
</tr>
</tbody>
</table>
# Table: Factors controlled or adjusted for

<table>
<thead>
<tr>
<th>Study</th>
<th>Place; year; data source*; No of residents or nursing homes</th>
<th>Factors controlled or adjusted for</th>
<th>Appropriate: age, severity of illness, severity of dementia, and payment status adjustments</th>
<th>Inappropriate: quality measures used in other studies; measures of intensity of care</th>
</tr>
</thead>
<tbody>
<tr>
<td>Castle 2001&lt;sup&gt;79&lt;/sup&gt;</td>
<td>United States; 1992-7 and 1999; OSCAR (1992-7); 13 162 nursing homes</td>
<td>ADLs; private pay occupancy</td>
<td>Nurse staffing</td>
<td></td>
</tr>
<tr>
<td>Dubois et al 2001&lt;sup&gt;80&lt;/sup&gt;</td>
<td>Eastern townships of Quebec (Canada); 1996; resident interviews; 88 nursing homes</td>
<td>Age</td>
<td>Staff to resident ratio; percentages of professionals among staff</td>
<td></td>
</tr>
<tr>
<td>Keith 2001&lt;sup&gt;81&lt;/sup&gt;</td>
<td>A ‘Midwestern state’; 2 year period (year not specified); primary mail questionnaire and Area Agencies on Aging; questionnaire data from 633 volunteers and 1886 records</td>
<td>Adjusted analysis but none of 4 selected appropriate factors included</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>O’Neill et al 2001&lt;sup&gt;82&lt;/sup&gt;</td>
<td>United States; 1999; OSCAR; 1098 homes</td>
<td>ADLs; dementia</td>
<td>Staffing (administration, medical director, RNs and LPNs, nurse aides per 10 residents)</td>
<td></td>
</tr>
<tr>
<td>Castle 2002&lt;sup&gt;83&lt;/sup&gt;</td>
<td>United States; 1996-9; OSCAR; 14 042 homes</td>
<td>ADLs; payment status</td>
<td>Psychiatric problems</td>
<td></td>
</tr>
<tr>
<td>Lee et al 2002&lt;sup&gt;84&lt;/sup&gt;</td>
<td>Taiwan; 1999; Quality Assessment Index; 28 homes (12 chain/FP, 12 independent/FP, and 4 NFP)</td>
<td>Adjusted analysis but none of 4 selected appropriate factors included</td>
<td>Ratio of nurses to average number of daily residents</td>
<td></td>
</tr>
<tr>
<td>Allen et al 2003&lt;sup&gt;85&lt;/sup&gt;</td>
<td>Connecticut; 1998-2000; Connecticut Ombudsman Reporting System; 3443 complaints combined with related data from state’s 261 nursing homes</td>
<td>Medicaid percentage</td>
<td>Nurse/resident ratio</td>
<td></td>
</tr>
<tr>
<td>Allen et al 2003&lt;sup&gt;86&lt;/sup&gt;</td>
<td>Connecticut; 1998-2000; Long-Term Care Ombudsman Program complaint data; 3360 complaints from 261 nursing homes</td>
<td>Medicaid occupancy</td>
<td>Staffing (full time employee ratio of RNs, LPNs, and certified nursing assistants to total number of beds/ facility)</td>
<td></td>
</tr>
<tr>
<td>Anderson et al 2003&lt;sup&gt;87&lt;/sup&gt;</td>
<td>Texas; date of survey administration not provided (secondary data from 1995); survey data from nursing home staff and 1995 Texas MDS; 164 nursing homes</td>
<td>Adjusted analysis but none of 4 selected appropriate factors included</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Castle and Banasak-Holl 2003&lt;sup&gt;88&lt;/sup&gt;</td>
<td>United States; 1999; OSCAR; 15 834 homes</td>
<td>Dementia; severity of illness (ADLs)</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Harrington and Swan 2003&lt;sup&gt;89&lt;/sup&gt;</td>
<td>California; 1999; state cost reports; 1155 homes</td>
<td>Payment status</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Wzech-Malnronado et al 2003&lt;sup&gt;90&lt;/sup&gt;</td>
<td>NY, KS, VT, ME, and SD; 1996; Health Care Financing Administration Investment Analyst Nursing Home Database (MDS+, OSCAR)</td>
<td>Adjusted analysis but none of 4 selected appropriate factors included</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Baumgarten et al 2004&lt;sup&gt;91&lt;/sup&gt;</td>
<td>Maryland; 1992-5; interviews with significant others or MDS+; 59 homes (1938 residents)</td>
<td>Unadjusted analysis</td>
<td>Unadjusted analysis</td>
<td></td>
</tr>
<tr>
<td>Lau et al 2004&lt;sup&gt;92&lt;/sup&gt;</td>
<td>United States; 1996; MEPS NH, 3372 residents</td>
<td>Age; Medicaid coverage; mental status; ADL limitations</td>
<td>RN to non-RN ratio; RN to resident ratio; influenza vaccination percentage</td>
<td></td>
</tr>
<tr>
<td>Castle and Engberg 2005&lt;sup&gt;93&lt;/sup&gt;</td>
<td>MO, TX, CT, and NJ; 2003; primary data on staff turnover from mailed survey, OSCAR for remaining information; 526 homes</td>
<td>Illness severity (ADLs, incontinent bladder/bowel); dementia</td>
<td>Staffing (full time equivalent RNs, LPNs, nursing assistants/100 beds)</td>
<td></td>
</tr>
<tr>
<td>Chesteen et al 2005&lt;sup&gt;94&lt;/sup&gt;</td>
<td>Utah; 1999; survey of certified nursing assistants, Utah Medicare/Medicaid certification program, and operational data reported to the state of Utah; 890 certified nursing assistants at 42 nursing homes</td>
<td>% Medicaid</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Gruber-Baldini et al 2005&lt;sup&gt;95&lt;/sup&gt;</td>
<td>4 US states; year of data acquisition unclear; survey of resident care supervisors; 347 residents with dementia in 10 homes and 35 residential care/assisted living facilities</td>
<td>Cognitive status</td>
<td>% of supervisory staff trained; % of direct care providers trained</td>
<td></td>
</tr>
<tr>
<td>Intrator et al 2005&lt;sup&gt;96&lt;/sup&gt;</td>
<td>United States (minus Alaska, District of Columbia, Hawaii, and Puerto Rico); 1993 to 2002; OSCAR and recent survey done by authors; 137 190 surveys from 17 635 distinct nursing facilities</td>
<td>Residents not paid for by Medicare or Medicaid (%), Medicare residents (%)</td>
<td>Total nurse hours per patient day4.55</td>
<td></td>
</tr>
<tr>
<td>McGregor et al 2005&lt;sup&gt;97&lt;/sup&gt;</td>
<td>British Columbia; 2001; British Columbia Labour Relations Board; 167 homes</td>
<td>Severity of illness (levels of care)</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Starkey et al 2005&lt;sup&gt;98&lt;/sup&gt;</td>
<td>NY, ME, VT, and SD; 1996; MDS+, OSCAR; 1121 homes</td>
<td>Payment status</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Stevenson 2005&lt;sup&gt;99&lt;/sup&gt;</td>
<td>Massachusetts; 1998-2002; nursing home complaints received by Massachusetts DPH, OSCAR, and MDS Qi; 539 nursing homes</td>
<td>ADLs</td>
<td>Survey deficiencies; staffing (nurse, aide); indwelling catheter; pressure sores</td>
<td></td>
</tr>
<tr>
<td>White 2005&lt;sup&gt;100&lt;/sup&gt;</td>
<td>United States; 1997, 2001; OSCAR; ~10 000 homes in each year (unclear from article)</td>
<td>Payment status</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Williams et al 2005&lt;sup&gt;101&lt;/sup&gt;</td>
<td>4 US states; year of data acquisition unclear; primary survey of resident care supervisors; 331 residents with dementia in 10 homes and 35 residential care/assisted living facilities</td>
<td>Cognitive status</td>
<td>Staffing</td>
<td></td>
</tr>
<tr>
<td>McGregor et al 2006&lt;sup&gt;102&lt;/sup&gt;</td>
<td>British Columbia; 1 April-1 August 1999; British Columbia Linked Health Database; 43 065 residents</td>
<td>None for crude analysis</td>
<td>None for crude analysis</td>
<td></td>
</tr>
</tbody>
</table>

ADLs=activities of daily living; DON=director of nursing; FP=for profit; IADLs=instrumental activities of daily living; LPH=licensed practical nurse; LVN=licensed vocational nurse; MMMS=modified mini-mental state examination; NFP=not for profit; RN=registered nurse; SFA=functional autonomy measurement system. *AHCA=American Health Care Association; ARF=Area Resource File; DPH=Department of Public Health; HCFA=Health Care Financing Administration; SAGE=Systematic Assessment of Geriatric Drug Use via Epidemiology; see table 3 for others.
Table 6: Quality of care measures and outcomes of studies comparing for-profit and not-for-profit nursing homes (public and private NFP homes): favoured directions represent those with higher quality care

<table>
<thead>
<tr>
<th>Study</th>
<th>Quality measure</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winn, 1974&lt;sup&gt;455&lt;/sup&gt;</td>
<td>Staffing—No of equivalent hours per patient day (1 RN hour=1 h; other employees’ hours in proportion to 1 as their salary is to that of an RN), aide/orderly hours per patient day, RN hours per patient day, total nursing care hours per patient day</td>
<td>Non-significantly favoured NFP for all comparisons</td>
</tr>
<tr>
<td>Riportella-Muller and Slesinger 1982&lt;sup&gt;516&lt;/sup&gt;</td>
<td>Complaints to Wisconsin Nursing Homes Ombudsman Program; deficiencies in Wisconsin Office of Quality Compliance survey</td>
<td>All significant (P&lt;0.00) comparisons favoured NFP; favoured NFP (P&lt;0.001) for complaints; not significant (direction unclear) for deficiencies</td>
</tr>
<tr>
<td>Nyman 1984&lt;sup&gt;537&lt;/sup&gt;</td>
<td>No of Medicaid violations weighted by severity in 1979, and composite variable for Wisconsin’s Quality Assurance Policy; each quality measure examined with 2 models</td>
<td>All significant (P&lt;0.05) comparisons favoured FP; for violations, one model significantly favoured FP (P&lt;0.05) and the other non-significantly favoured FP; for the composite variable, non-significantly favoured FP and NFP in two different models</td>
</tr>
<tr>
<td>Brunetti et al 1999&lt;sup&gt;589&lt;/sup&gt;</td>
<td>Cardiopulmonary resuscitation policy prevalence and quality of policy compared with 10 model criteria</td>
<td>Mixed results: presence of policy, non-significantly favoured FP; quality of policy, difference not noted</td>
</tr>
<tr>
<td>Munroe 1999&lt;sup&gt;590&lt;/sup&gt;</td>
<td>Deficiencies in California state licensing “276 health deficiencies,” assessed for licensing (state) and certification (Medicare and Medicaid); staffing (turnover)</td>
<td>All significant (P&lt;0.00) comparisons favoured NFP: non-significantly favoured FP for deficiencies; favoured NFP for staffing (P&lt;0.001)</td>
</tr>
<tr>
<td>Cherry 1990&lt;sup&gt;591&lt;/sup&gt;</td>
<td>Aggregate measure of staffing hours, pressure ulcer prevalence, urinary tract infections/resident, and antibiotic use (poorly explained)</td>
<td>Non-significantly favoured NFP (only one aggregate outcome reported)</td>
</tr>
<tr>
<td>Kanda and Mezey 1991&lt;sup&gt;611&lt;/sup&gt;</td>
<td>Staffing: RN staffing—No of full time RNs/100 beds, No of part time RNs/100 beds, total No of nursing staff/100 beds, proportion of part time and full time RNs to total nursing staff</td>
<td>All significant (P&lt;0.05) comparisons favoured NFP: favoured NFP for part time RNs/100 beds (P&lt;0.001), total nursing staff/100 beds (P&lt;0.001); non-significantly favoured NFP for full time RNs/100 beds, proportion of full time and part time RNs to total nursing staff</td>
</tr>
<tr>
<td>Cherry 1993&lt;sup&gt;592&lt;/sup&gt;</td>
<td>Poor nursing care (composed of four items) and non-compliance (defined as infraction in any of eight federally established categories of inspection)</td>
<td>All significant (P&lt;0.05) comparisons favoured NFP; FP showed non-significantly more poor care and significantly greater non-compliance (P&lt;0.01)</td>
</tr>
<tr>
<td>Zinn et al 1993&lt;sup&gt;593&lt;/sup&gt;</td>
<td>Mortality—deaths per 100 residents; prevalence of pressure ulcers, restraint use, and urethral catheterisation</td>
<td>Non-significantly favoured NFP for all measures</td>
</tr>
<tr>
<td>Zinn 1993&lt;sup&gt;641&lt;/sup&gt;</td>
<td>Staffing (RNs per resident, LPNs per resident, NAs per resident); catheter use rate; restraint use rate; tube fed rate; % not toileted</td>
<td>Mixed results: FP significantly associated with fewer RNs per resident, more LPNs per resident, higher catheter use rate, higher restraint use rate, and higher % not toileted; FP non-significantly associated with more NAs per resident and higher tube fed rate</td>
</tr>
<tr>
<td>Graber and Sloane 1995&lt;sup&gt;655&lt;/sup&gt;</td>
<td>Restraint use prevalence at 1991 North Carolina Annual Survey</td>
<td>Non-significantly favoured NFP</td>
</tr>
<tr>
<td>Christensen and Beaver 1996&lt;sup&gt;666&lt;/sup&gt;</td>
<td>Surveys of health and safety deficiencies and life safety code deficiencies</td>
<td>Significantly favoured NFP (P&lt;0.005), meaning FP had more deficiencies</td>
</tr>
<tr>
<td>Mukamel 1997&lt;sup&gt;667&lt;/sup&gt;</td>
<td>Deterioration of decubitus ulcers; physical restraint use prevalence; dehydration rates; deterioration in ADLs</td>
<td>Mixed results: FP associated with worse outcomes for deterioration in decubitus ulcers (P=0.004) and physical restraints (P=0.0001) and better outcomes for dehydration rates (P=0.0001); no significant difference for accident rates and No of deficiencies</td>
</tr>
<tr>
<td>Anderson et al 1998&lt;sup&gt;668&lt;/sup&gt;</td>
<td>Average resident outcomes concerning verbal/physical aggression; other disruptive behaviour; geriatric-chair, wrist-mitten or vest-belt restraints; contracture; pressure ulcer; dehydration; urinary tract infection; fracture within preceding 3 months; and percentage improvements in resident outcomes between two time points</td>
<td>Not significant (direction not noted)</td>
</tr>
<tr>
<td>Bliesmer et al 1998&lt;sup&gt;669&lt;/sup&gt;</td>
<td>Change in total dependence score (TDS) based on sum of eight ADLs: dressing, grooming, bathing, eating, bed mobility, transferring, walking and toileting</td>
<td>Mixed results: when deaths and discharges were excluded from the TDS scores, ownership status was no longer significant; FP status was significantly associated with higher chances of discharge in 2 of the 3 years examined (1990 (P=0.001) and 1991 (P=0.01)); NFP status was significantly associated with higher chances of death in 2 of the 3 years examined (1990 and 1991, P=0.001 for both)</td>
</tr>
<tr>
<td>Castle and Fogel 1998&lt;sup&gt;650&lt;/sup&gt;</td>
<td>Restraint use prevalence</td>
<td>Significantly favoured FP (P&lt;0.001)</td>
</tr>
<tr>
<td>Anderson and Lawhome 1999&lt;sup&gt;651&lt;/sup&gt;</td>
<td>Advance care directive prevalence; feeding tube prevalence; drug errors noted on survey; pressure ulcer prevalence; restraint use prevalence; staffing—direct care hours per resident per day; urinary catheterisation prevalence</td>
<td>All significant (P&lt;0.05) comparisons favoured NFP: non-significantly favoured NFP for drug errors, non-significantly favoured FP for restraint use prevalence; favoured NFP for all other comparisons</td>
</tr>
<tr>
<td>Bravo et al 1999&lt;sup&gt;652&lt;/sup&gt;</td>
<td>QUALCARE scale*</td>
<td>Not significant (direction not noted)</td>
</tr>
<tr>
<td>Castle 1999&lt;sup&gt;653&lt;/sup&gt;</td>
<td>Psychoactive drug use prevalence</td>
<td>Non-significantly favoured FP</td>
</tr>
<tr>
<td>Ballou 2000&lt;sup&gt;556&lt;/sup&gt;</td>
<td>Deficiencies (federal violations—definition unclear); staffing—RNs + LPNs per bed, total nursing staff per bed</td>
<td>Favoured NFP (unclear if significant)</td>
</tr>
<tr>
<td>Castle 2000&lt;sup&gt;555&lt;/sup&gt;</td>
<td>Restraint use (changes with legislation)</td>
<td>Mixed results: favoured NFP (P&lt;0.001) for not increasing restraint use with legislation; favoured FP (P&lt;0.05) for decreasing restraint use with legislation</td>
</tr>
<tr>
<td>Castle 2000&lt;sup&gt;565&lt;/sup&gt;</td>
<td>Restraint use citations</td>
<td>Favoured NFP (P&lt;0.05)</td>
</tr>
<tr>
<td>Castle 2001&lt;sup&gt;557&lt;/sup&gt;</td>
<td>Deficiencies in OSCAR for 19 quality of care items; prevalence of pressure ulcers, psychoactive drug use, restraint use, and urethral catheterisation</td>
<td>All significant (P&lt;0.05) comparisons favoured NFP; favoured NFP for deficiencies, psychoactive drug use, restraint use prevalence; not significant (direction unclear) for deficiencies, urethral catheterisation</td>
</tr>
<tr>
<td>Castle 2001&lt;sup&gt;558&lt;/sup&gt;</td>
<td>Deficiency citations in OSCAR, subdivided into provision of appropriate services, training provisions and resident assessments</td>
<td>Favoured NFP (P&lt;0.001)</td>
</tr>
<tr>
<td>Castle 2001&lt;sup&gt;559&lt;/sup&gt;</td>
<td>Early adopters of innovation (as measured through 13 special care units or subacute services)</td>
<td>Non-significantly favoured FP</td>
</tr>
<tr>
<td>Study</td>
<td>Quality measure</td>
<td>Outcome</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>---------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Dubois et al 2003w60</td>
<td>QUALCARE scale*</td>
<td>Not significant (direction not noted)</td>
</tr>
<tr>
<td>Keith 2003w61</td>
<td>Ombudsman program complaints</td>
<td>Favoured NFP (P&lt;0.001)</td>
</tr>
<tr>
<td>O’Neill et al 2001w62</td>
<td>Deficiencies in OSCAR (total deficiencies and severe deficiencies rated F and higher, where maximum No of deficiencies was 85 to reduce outlier effects); staffing—average total nursing hours per resident day</td>
<td>Favoured NFP (P&lt;0.01) for all comparisons</td>
</tr>
<tr>
<td>Castle 2002w65</td>
<td>Restraint use prevalence</td>
<td>Favoured FP: 1 citation (P&lt;0.05); 2 consecutive yearly citations (P&lt;0.01); 3 consecutive yearly citations (P&lt;0.01)</td>
</tr>
<tr>
<td>Lee et al 2002w64</td>
<td>QAI</td>
<td>Significantly favoured NFP for 3/5 categories and for total QAI score (P&lt;0.05)</td>
</tr>
<tr>
<td>Allen et al 2003w65</td>
<td>Ombudsman program complaints</td>
<td>Mixed results: non-significantly favoured NFP for both care complaints (P&gt;0.79) and abuse complaints (P&gt;0.20)</td>
</tr>
<tr>
<td>Allen et al 2003w66</td>
<td>Ombudsman complaints</td>
<td>Significantly favoured NFP (P&lt;0.021)</td>
</tr>
<tr>
<td>Anderson et al 2003w67</td>
<td>Residents’ behaviour (verbal or physical aggressiveness or other disruptive behaviour); restraint use; complication of immobility; or sustaining a fracture in previous 3 months</td>
<td>Mixed results: non-significantly favoured FP for resident behaviours and higher restraint use; non-significantly favoured NFP for complications of immobility and fractures</td>
</tr>
<tr>
<td>Castle and Banaszak-Holl 2003w68</td>
<td>Prevalence of pressure ulcers, psychoactive drug use, restraint use, and urinary catheterisation</td>
<td>Favoured NFP for each comparison (chains and non-chain owned nursing homes analysed separately)</td>
</tr>
<tr>
<td>Harrington and Swan 2003w69</td>
<td>Staffing—total nurse and RN hours per resident day</td>
<td>Favoured NFP (P&lt;0.01)</td>
</tr>
<tr>
<td>Weech-Maldonado et al 2003w70</td>
<td>Outcome quality (cognitive decline, mood decline, pressure ulcer prevalence); process quality (restraint use prevalence, urinary catheterisation prevalence); staffing (ratio of RN hours to total nursing hours)</td>
<td>Mixed results: non-significantly favoured FP for outcome quality; nearly significantly favoured NFP (P&lt;0.10) for process quality; non-significantly favoured NFP for staffing</td>
</tr>
<tr>
<td>Baumgarten et al 2004w71</td>
<td>Pressure ulcer incidence</td>
<td>Favoured NFP</td>
</tr>
<tr>
<td>Lau et al 2004w72</td>
<td>Inappropriate medical prescriptions by Beer’s criteria</td>
<td>Non-significantly favoured NFP</td>
</tr>
<tr>
<td>Castle and Engberg 2005w73</td>
<td>Contracture prevalence; deficiencies in OSCAR—focused on quality deficiencies (19/185 assessed); restraint use prevalence; pressure ulcer prevalence; psychoactive drug use prevalence (% of residents given anti-anxiety, sedative/hypnotic, and antipsychotic drugs); quality index—normalised measure of other indices (physical restraint prevalence, urethral catheterisation prevalence, contracture prevalence, pressure ulcer prevalence, psychoactive drugs use, and deficiency data)</td>
<td>All significant (P&lt;0.05) comparisons favoured NFP: non-significantly favoured NFP for all comparisons except for restraint prevalence, which favoured NFP (P&lt;0.01)</td>
</tr>
<tr>
<td>Cheseen et al 2005w74</td>
<td>Health deficiency, severity of deficiency, and frequency of deficiency</td>
<td>Mixed results: non-significantly favoured NFP for all 3 measures, meaning that FP had worse deficiencies</td>
</tr>
<tr>
<td>Gruber-Baldini et al 2003w75</td>
<td>Depression (of resident) prevalence, measured by modified Cornell scale for depression in dementia</td>
<td>Significantly favoured NFP (odds ratio 2.53 FP/NFP, 95% CI 1.29 to 4.98)</td>
</tr>
<tr>
<td>Intrator et al 2005w75</td>
<td>Employment of nurse practitioners or physician assistants on staff</td>
<td>Non-significantly favoured FP</td>
</tr>
<tr>
<td>McGregor et al 2005w77</td>
<td>Staffing: mean (dietary, housekeeping and laundry staff) hours per resident day; mean (RN, LPN and NA) hours per resident day; mean activity aide hours per resident day; mean dietary staff hours per resident day; mean housekeeping staff hours per resident day; mean lunch staff hours per resident day; mean RN hours per resident day; mean NA hours per resident day; mean RN hours per resident day (each measure assessed in intermediate care, intermediate/extended care, and multilevel nursing home care settings)</td>
<td>All significant (P&lt;0.05) comparisons favoured NFP—favoured NFP for all comparisons except: non-significantly favoured NFP for intermediate/extended care mean activity aide hours per resident day, multilevel care mean dietary staff hours per resident day, multilevel care mean lunch staff hours per resident day, intermediate care or intermediate/extended care mean RN hours per resident day, mean NA hours per resident day in all three care settings, mean RN hours per resident day in intermediate and multilevel care settings; no direction to relation for multilevel care mean LPN hours per resident day; non-significantly favoured FP for mean laundry staff hours per resident day in all three care settings</td>
</tr>
<tr>
<td>Starkey et al 2005w79</td>
<td>Cognitive decline between OSCAR assessments; mood decline between OSCAR assessments; prevalence of pressure ulcers, restraint use, and urinary catheterisation</td>
<td>All significant (P&lt;0.05) comparisons favoured NFP: non-significantly favoured NFP for all measures except restraint use prevalence, which non-significantly favoured FP, and urethral catheterisation prevalence, which significantly favoured NFP</td>
</tr>
<tr>
<td>Stevenson 2005w79</td>
<td>Ombudsman office complaints</td>
<td>Significantly favoured NFP (P&lt;0.05)</td>
</tr>
<tr>
<td>White 2005w80</td>
<td>Deficiencies in OSCAR; pressure ulcer incidence (OSCAR)†; restraint use incidence (OSCAR)‡</td>
<td>All significant (P&lt;0.05) comparisons favoured NFP: significantly favoured NFP (P&lt;0.05) in all measures except pressure ulcer incidence, which non-significantly favoured FP</td>
</tr>
<tr>
<td>Williams et al 2005w81</td>
<td>Resident self reported pain using Philadelphia Geriatric Centre pain intensity scale</td>
<td>Significantly favoured NFP (odds ratio 2.99 FP/NFP, 95% CI 1.40 to 6.39)</td>
</tr>
<tr>
<td>McGregor et al 2006w82</td>
<td>Hospital admission rate for anaemia, dehydration, falls, pneumonia, urinary tract infection, and pressure ulcers/gangrene; mortality</td>
<td>All significant (P&lt;0.05) comparisons favoured NFP: favoured NFP for all measures except falls, urinary tract infection, and pressure ulcer admissions (non-significantly favoured NFP) and mortality (no direction)</td>
</tr>
</tbody>
</table>

ADL=activities of daily living; FP=for-profit; NFP=not-for-profit; LPN=licensed practical nurse; OSCAR=Online Survey Certification and Reporting; QAI=quality assessment index (composite measure of staff presentation, operational efficiency, resident care quality, and institutional care plan); RN=registered nurse.

*F4 items grouped into 7 subscales: older person's room, residence, physical care, medical maintenance, psychosocial care, human rights, and financial.
†OSCAR includes results of independent site surveys done every 9-15 months by auditors under contract from the Center for Medicare and Medicaid Services. The surveys detail compliance with each of 185 separate measures of quality that consider nursing home structure, processes, and outcomes. As a measure of quality, deficiency data has some limitations. Also, under-detection and under-reporting of deficiencies may occur. Deficiencies are categorised according to severity from A to L. F and higher denotes care that has potential to cause harm or immediate jeopardy to patients. In some years, deficiencies assessed varied from state to state.
‡Use of vests, belts, mittens, or wrist or ankle restraints. Chairs with locking trays (Geri-trays) are also included, whereas bed rails are not. Specifically, restraints imposed for discipline or convenience, and not needed to treat the resident's medical symptoms were objectionable. Variable for restraint use is dichotomous—the home either did or did not receive this deficiency. Restraint use was verified by surveyors during the day for OSCAR.
outcomes of those studies that compared for-profit and privately owned not-for-profit facilities. Similarly, tables 5 and 6 present the detailed study characteristics and outcomes of studies that compared for-profit and not-for-profit (publicly and privately owned) facilities.

We meta-analysed data for the four most commonly used quality measures. Table 7 presents a summary of the characteristics of studies meta-analysed, along with the results of sensitivity analyses to explain heterogeneity among studies in each meta-analysis. Two meta-analyses showed statistically significant results favouring higher quality care in not-for-profit nursing homes. We found more or higher quality staffing in not-for-profit homes (ratio of effect 1.11, 95% confidence interval 1.07 to 1.14, \(P<0.001, I^2=91.6\%\)) (fig 2). We found a similar result favouring not-for-profit homes when assessing staffing hours alone, with a ratio of effect of 1.11 (1.08 to 1.14, \(P<0.001, I^2=70.3\%\)), an absolute hours increase of 0.42 (0.31 to 0.53) hours/resident/bed-day, and a relative hours increase of 11% (8% to 14%). When the only non-US study was excluded, we arrived at a similar ratio of effect for more or higher quality staffing in not-for-profit homes of 1.11 (1.07 to 1.15, \(P<0.001, I^2=92.4\%\)).

We found a lower prevalence of pressure ulcers in not-for-profit homes (odds ratio 0.91, 95% confidence interval 0.83 to 0.98, \(P=0.02, I^2=52.1\%\)), with an absolute risk reduction of 0.59% (0.13% to 1.12%) and a relative risk reduction of 8.4% (1.9% to 16%) (fig 3). When the only non-US study was excluded, we arrived at a similar odds ratio favouring lower pressure ulcer prevalence in not-for-profit homes of 0.89 (0.82 to 0.97, \(P=0.007, I^2=50.2\%\)).

The remaining two meta-analyses showed non-statistically significant differences. We found less use of physical restraints in not-for-profit homes (odds ratio 0.93, 0.82 to 1.05, \(P=0.25, I^2=74.6\%\)) (fig 4) and fewer deficiencies in governmental regulatory assessments in not-for-profit homes (ratio of effect 0.90, 0.78 to 1.04, \(P=0.17, I^2=59.8\%\)) (fig 5).

Funnel plots for the four meta-analyses did not suggest publication bias. A priori hypotheses did not explain the observed heterogeneity (table 7).

**Discussion**

Our systematic review identified 82 studies comparing quality of care in for-profit and not-for-profit nursing homes. More studies had all statistically significant analyses showing higher quality in not-for-profit
Facilities, suggesting that NFP facilities deliver higher quality care (NFP) nursing homes. OR <1 indicates lower risk of pressure ulcers in NFP facilities than in FP facilities.

Previous systematic reviews
Two previous systematic reviews have compared quality of care in for-profit and not-for-profit nursing homes. In 1991 Davis and colleagues found that many studies showed that higher quality of care was provided in not-for-profit nursing homes; however, weaknesses in the methodological design of the included studies limited the conclusions that could be drawn. In 2002 Hillmer and colleagues did a systematic review comparing for-profit and not-for-profit facilities (including publicly owned facilities), focusing on studies in North America completed after the previous review. This study also concluded that not-for-profit facilities provided better quality care than for-profit facilities.

Strengths and weaknesses of this review
We did a comprehensive search, which identified 60 studies not included in previous reviews. We assessed studies spanning four decades and published in any language. We masked study results before determining eligibility and did duplicate citation screening, data abstraction, and quality assessment. We contacted authors for missing data and received responses from most of them. We compared quality of care in both for-profit versus not-for-profit nursing homes and for-profit versus privately owned not-for-profit nursing homes, did pooled analyses of quality of care measures, and found largely consistent results.

Our review has limitations resulting from the characteristics of the studies included. No randomised trials have compared quality of care across nursing home ownership, and no such trials are ever likely to be done. Furthermore, most studies are from the United States, which raises questions of generalisability to other jurisdictions.

Studies are also limited in that no standard definition of quality of care exists. The result is that studies used a very wide variety of alternative measures of quality. Even when the same measures were used, standardised approaches to the application of those measures were lacking. For example, meta-analysis for number and qualifications of staff fails to take into account staff turnover, the use of agency staff, and the professional mix of staff.
Moreover, several eligible studies used administrative databases, which further limits the comprehensiveness and quality of the data. For example, the American Online Survey Certification and Reporting (OSCAR) database comprises self reported data from nursing home administrators; surveyors verify only a sample. Careful duplicate abstraction of data from patients’ charts with a priori definitions or, ideally, direct assessment of care provision would be preferable.

Our meta-analyses are limited in that many authors could not remove publicly owned facilities from their datasets for our for-profit versus privately owned not-for-profit analysis. However, in our sensitivity analyses, results comparing for-profit and not-for-profit facilities were not significantly different from those in which we restricted the not-for-profit facilities to those for which we could confirm ownership.

Heterogeneity
On the one hand, one might see our results as compellingly favouring not-for-profit facilities. The gradient between studies in which all significant measures favoured not-for-profit (40 studies) and those in which all measures favoured for-profit (3) is large (table 1). All four meta-analyses favoured not-for-profit institutions, and two reached statistical significance.

On the other hand, 37 studies had mixed results (some measures favoured for-profit, some not-for-profit) and considerable heterogeneity was present in the results of the meta-analyses. This suggests that although the average effect is clear, that effect probably varies substantially across situations. The variability is probably explained, in part, by a variety of factors that vary within categories of for-profit and not-for-profit homes, including management styles, motivations, and organisational behaviour. For example, for-profit facilities owned and operated by investor owned corporations may have different motivations than facilities owned by small private businesses or single proprietors. Not-for-profit facilities run by charities might differ in structure and process from those run by municipalities; not-for-profit facilities that are managed by for-profit nursing home companies may function differently from those that are not.

We have partially mitigated this problem with our a priori hypotheses (extent of appropriate adjustments, year of data collection, geography and political environment, primary compared with secondary data collection, and, in particular, public versus private ownership of not-for-profit facilities). None of these variables, however, explained the substantial heterogeneity of our results. The studies failed to specify characteristics of individual nursing homes in sufficient detail to allow analyses exploring factors such as those listed above (ownership by corporation, small business, charitable organisation of municipality; management of not-for-profit homes by for-profit providers).

Significance of this study
Most of the studies in our systematic review showed lower quality of care in for-profit nursing homes than in not-for-profit nursing homes. However, a large proportion of studies showed no significant difference in quality of care by ownership. In the long term care market, in which funding is often provided by the government at fixed rates, both for-profit and not-for-profit facilities face an economic challenge that may affect staffing and other determinants of quality of care. In the for-profit context, however, shareholders expect 10-15% returns on their investments,20 taxes may account for 5-6% of expenses, and facilities tend to have higher executive salaries and bonuses, so for-profit facilities have a strong incentive to minimise expenditures.31 Minimising expenditures may lead to lower quality staffing and higher rates of adverse events (such as pressure ulcers), which may be reflected in citations for deficiency.

Proving causality by using observational studies is difficult. Furthermore, given their variability, the results do not imply a blanket judgment of all institutions. Some for-profit institutions may provide excellent quality care, whereas some not-for-profit institutions may provide inferior quality of care.

Our findings are, however, consistent with findings of higher risk adjusted death rates in for-profit hospitals and dialysis facilities as shown in previous reviews,18 19 as well as providing insight into average effects. Given the absolute risk reduction in pressure ulcers of 0.59%, we can estimate that pressure ulcers in 600 of 7000 residents with pressure ulcers in Canada and 7000 of 80 000 residents with pressure ulcers in the United States are attributable to for-profit ownership. Similarly, given an absolute increase in nursing hours of 0.42 hours per resident per bed per day, we can estimate that residents in Canada would receive roughly 42 000 more hours of nursing care a day and those in the United States would receive 500 000 more hours of nursing care a day if not-for-profit institutions provided all nursing home care. These estimates are based on the 2006 census from Canada showing that 100 740 of 252 561 nursing home residents resided in for-profit nursing homes and the 2000 census from the United States showing a total of 1 720 500 nursing home residents.32 33 These estimates assume that two thirds of US nursing home residents live in for-profit facilities.
Further research and conclusions

Although this review has fully assessed the data available comparing for-profit and not-for-profit nursing home care, additional work is needed to compare the costs between these types of facilities and to evaluate the consistency of these findings outside of the United States and Canada. Although we have extensively evaluated the literature comparing quality of care in for-profit, charitable organisation owned, and government owned nursing homes, the available studies did not allow comparison of the possible impact of factors such as subcategory of for-profit ownership (for example, chain vs non-chain, investor vs small business ownership, municipality vs federal government ownership). Nursing home management companies further complicate the relationship between ownership and quality of care. These are all important areas that warrant further research.

We acknowledge the outstanding work of Deborah Maddock, Denise Healey, Shelley Anderson, Michelle Murray, Monaca Owen, and Laurel Granger who coordinated this study. We thank our foreign article reviewers Janek Brozek, Matthias Briel, Toshi Furukawa, Marjuka Makela, Ben de Mol, Paola Muti, Patricia Smith, Kristian Thorlund, and David Wei. We appreciate the work of Dana Keilty, Navneet Binepal, Tony Soeyyongo, and Mirji Kim, who blinded articles for us. We thank Christina Lacchetti, Michael Levy, and Rajesh Hiralal, who reviewed articles for us, and Diane Heels-Ansdell for her statistical help. We also thank the authors of included studies who did additional analyses for our systematic review: Chappin White, Robert Wreech-Maldonado, and Ann L. Gruber-Baldini. Contributors: VRC, PID, GHG, and TS conceived and designed the study. OB, MB, NB, VRC, DIC, PID, GHG, SB, IW, KEB, TH, JNL, BP, NCR, HS, BS, SBS, QZ, and KW were involved in data acquisition. VRC, NCR, QZ, and PID analysed and interpreted the data. VRC drafted the manuscript. GHG, PID, and QZ critically reviewed the manuscript for important intellectual content. QZ and SDW provided statistical expertise. VRC, PID, and GHG are the guarantors.

Funding: Atkinson Foundation Grant; the study sponsor did not contribute to the study design. JWB is funded by a Canadian Institutes of Health research fellowship award. DIC, MB, and JNL are supported, in part, by their respective Canada Research chairs. PID is supported by a Canadian Institutes of Health Research new investigator award. HS is funded by a European Commission: The Human Factor, Mobility and Marie Curie Actions scientist reintegration grant (IGR 42192).

Competing interests: None declared.

Ethical approval: Not needed.

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Accepted: 21 April 2009

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Part 4

Myths and facts

Myth 5:
ACOs and EMRs will reduce health care costs.

Fact: ACOs (accountable care organizations), which resemble HMOs, have not been shown to save money.


Fact: EMRs (electronic medical records) have not been shown to save money.


TO: Members of the Vermont Senate Health and Welfare Committee
FROM: Kip Sullivan
RE: Requests for information following my testimony on March 24, 2011
DATE: March 28, 2011

After I testified before your committee I was asked by three of you for more information. Senator Ayer asked for a suggested reading list. Senator Fox asked for a list of my examples of claims about health policy that are not evidence-based. Senator Pollina asked for information on my solution to the health care crisis. And one of you asked if I could send along a copy of the outline of my testimony.

I reply to all four requests in this memo. Below I present the outline from which I spoke along with a paragraph on each section of the outline. I have added footnotes and appendices that document most of my statements for those of you who would like to read more on these subjects. At the end of this memo I have added a short section that addresses Senator Pollina’s question about how I would solve the health care crisis.

I. Evidence-based medicine versus faith-based health policy

The health policy establishment enthusiastically supports a standard for decision-making among doctors and patients known as evidence-based medicine, but it does not practice evidence-based *health policy*. The establishment regularly promotes policies for which evidence is non-existent or mixed. In the remainder of this section I list examples of claims that have reached the status of folklore within the US health policy community and document my assertion that these claims are not supported by the rigorous evidence that proponents of evidence-based medicine have in mind (namely, research published in peer-reviewed journals).

Claim: The fee-for-service (FFS) method of paying doctors explains America’s high health care costs, and the only way to control health care costs is to turn the FFS incentive (the incentive to order more services) upside down with capitation or some other financial incentive that rewards doctors for ordering fewer services.

The evidence: The vast majority of doctors in other industrialized countries are paid by the FFS method, and those countries have achieved, on average, per capita health care costs equal to half of our costs. This fact means one of the following statements has to be true: (1) the FFS method causes little overuse; (2) other countries have found mechanisms to control or offset the incentive to over-treat created by the FFS method; or (3) both.

Claim: Overuse of heath care, induced by the FFS method, is rampant.

The evidence: *Underuse* of health care, even among the insured, is rampant. In fact, research indicates underuse occurs at a much higher rate than overuse. The single best study on this issue, published in the *New England Journal of Medicine* in 2003, reported that overuse occurred one-fourth as often as underuse. Here is a quote from that article: “[W]e found greater problems with underuse (46.3% of participants did not receive recommended care …) than with overuse (11.3% of participants received care that was not recommended and was potentially harmful...).”1 Examples of very high rates of underuse are presented in Appendix A. Note that

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underuse is not limited to inexpensive services. If the FFS method is to blame for overuse, why is it not also to blame for underuse? The most accurate statement is that inappropriate use of our health care system occurs frequently, and the net effect of overuse and underuse is too little use, even among the insured.

The evidence: The evidence that underuse is far worse than overuse is buttressed by evidence that doctors do not have enough time in the day to meet all existing medical guidelines for all patients. The health policy establishment, preoccupied as it is with overuse, devotes little time to this topic. But what research there is all points in the same direction: Doctors do not have enough time to meet all the needs of their patients. One paper concluded: “On the basis of recommendations from national clinical care guidelines for preventive services and chronic disease management, and including the time needed for acute concerns, sufficiently addressing the needs of a standard patient panel of 2,500 would require 21.7 hours per day.”2 (This fact is also relevant to claims made for report cards on doctors: If doctors cannot possibly meet every standard for every patient, and medical report cards seek to determine whether doctors meet only a tiny percent of current standards, doctors will inevitably “teach to the test,” that is, shift resources away from patients whose care is not measured to patients whose care is measured.)

The evidence: Rationing (which is one measure of underuse) is far worse in the US than in Canada, a country with health care costs roughly 60 percent of ours. When Canadians are asked if they “did not visit a doctor when sick” in the previous year, 4 percent say yes. When Americans are asked that question, 25 percent say yes.3 Canada pays nearly all of its doctors by the FFS method. Should Canada’s FFS method be credited with Canada’s lower rate of underuse? If so, by what logic would we also blame the FFS method in America for overuse?

Claim: HMOs and the tools HMOs pioneered (the tools are known collectively as “managed care”) improved quality and lowered costs.

The evidence: The peer-reviewed evidence, and an enormous body of anecdotal evidence, indicates HMOs and the insurance companies that adopted managed care tools had a net negative effect on quality of care. (See Appendix B for research and statements by experts on this topic.) HMOs and some of the managed care tools have been shown to reduce use of medical services, but that does not mean total costs fell. The reason is two-fold:

(1) As I just noted, managed care often worsens patient health, which drives up future medical costs;
(2) total health care spending includes medical care costs as well as administrative costs, and evidence indicates managed care drove up administrative costs for clinics and hospitals and may have driven them up for the insurance industry.4,5,6

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2 Kimberly S. Yarnall et al., “Family physicians as team leaders: ‘time’ to share the care,” Preventing Chronic Disease 2009 6(2). http://www.cdc.gov/pcd/issues/2009/apr/08_0023.htm, accessed June 1, 2010. Here are some examples of questions doctors are supposed to ask every patient: “Are you feeling down? Have you recently traveled to another country? Do you have more than one sexual partner? Does your child live in or regularly visit a house built before 1950? How do you deal with anger? Any trouble sleeping? Do you wear a seat belt? Do you drink alcohol? Does your vision make it difficult for you to recognize your pills or read medication labels? Do you have a gun at home?” (Kathleen P. Tomaselli, “One more thing,” American Medical News, January 23, 2006, 19).


The spread of managed care also set off a frenzy of mergers and consolidation within the insurance and medical sectors in the 1990s. This is already happening again thanks to widespread discussion of ACOs (which will almost certainly look like HMOs when ACOs are finally defined).

Claim: Report cards on doctors and hospitals and “pay for performance” will improve quality and lower costs.

The evidence regarding quality: Report cards can damage quality of care three ways:

1. by failing to measure quality accurately (the main cause of inaccuracy is failure to adjust “grades” for factors outside clinic-hospital control) and thereby steering patients toward inferior providers;
2. by inducing providers to “teach to the test”; and
3. by inducing providers, fearful of inaccurate measurement, to avoid sicker patients.

“Pay for performance” means paying providers according to how they score on report cards. For the three reasons already mentioned, pay-for-performance may do more harm than good (see Appendix B).

The evidence regarding cost: Proponents of report cards and pay-for-performance almost never discuss the cost of report cards and P4P, much less measure cost accurately and weigh those costs against the alleged benefits. But the cost, both to the report-card producer and to providers who must collect voluminous amounts of data, is substantial. The report card on heart surgeons published annually by the New York Department of Health requires roughly 40 full-time staff – one full-time person to collect data at each of the three dozen hospitals where heart surgery is performed, and five at the New York Department to collect the data and produce the report cards (see Appendix B for more information.)

The evidence: Proponents of report cards and P4P often state or imply that there is no other way to improve quality other than to publish report cards. There are in fact numerous methods of quality improvement that do not rely on report cards, including sharing information with providers (as opposed to publishing it), traditional medical research, ending the nurse shortage and taking other steps to increase the supply of primary care health care professionals, and making health insurance universal.

The evidence: P4P schemes can work with simple tasks (eg, inducing a pigeon to peck on the ace of spades). They are unlikely to have a net positive effect on tasks requiring complex decision-making.

Claim: Prevention saves money for the health care system.

The evidence: Proven preventive medical services improve patient health, but as a class they do not reduce costs (see Appendix B). There are exceptions to this rule, but those exceptions prove the rule. There are two reasons why most preventive services do not reduce health care costs. One is that preventive services have to be given to an entire category of people (for example, mammograms are supposed to be given to all women over the age of 40 or 50), not just to those who we know will contract or have contracted a disease. In other words, many people in the category who are supposed to receive preventive services would have remained healthy had

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they not received the preventive service. Preventive services are not free. When they are administered to tens of millions of people to prevent illness in a small fraction of that population, the cost of administering the service usually outweighs the health care costs foregone due to improved health. The second reason preventive services do not save money is that many preventive services are designed to discover disease in its early stages. When the disease is discovered, more tests and medical services are required.

Jonathan Gruber, a name I believe you all recognize, said this to the New York Times: “It’s a nice thing to think, and it seems like it should be true, but I don’t know of any evidence that preventive care actually saves money.”

Claim: Disease management saves money.
The evidence: When disease management is integrated with primary care (as opposed to delivered from afar from call centers run by insurance companies and disease management companies), it can improve health. But as is the case with prevention, disease management as a class has not been shown to save money. In fact, several studies demonstrate that disease management will raise costs substantially (see Appendix B).

Claim: “Coordinated care,” “integrated care,” and “medical homes” improve care and save money.
The evidence: An intelligent discussion of these terms is very difficult because these terms, although omnipresent, are poorly defined. If these terms mean expanding the supply of primary care doctors, nurses and other health care professionals, the evidence does indicate more primary care can improve quality. The evidence does not indicate that more primary care reduces costs. (See Appendix B for citation to a study on “coordinated care.” See Appendix D for a discussion of the papers on “medical homes” cited by the report by Hsiao et al.).

Claim: Electronic medical records (EMRs) improve quality and save money.
The evidence: The evidence that EMRs can improve quality is mixed; the evidence that EMRs can reduce costs is virtually nonexistent. Research indicates EMRs can improve quality of care and damage it. Research also indicates EMRs can force doctors and nurses to devote more time to data entry than they would have with paper records. There is little evidence on the question of whether EMRs save money. But if the research indicates EMRs have mixed effects on quality, and if EMRs are not free, then the net effect of the universal adoption of EMRs must be to raise costs. A paper on the cost of universal adoption of EMRs, and the replacement of the

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8 Quoted in David Leonhardt, “Free lunch on health? Think again,” New York Times, August 8, 2007, C 2. Note that I am discussing here only the claim that prevention saves money for the health care system. That claim is different from the claim that prevention saves money for employers. Research suggests that proven preventive services can generate savings for employers that exceed the cost of the intervention. But the claim that prevention can save money for employers is quite different from the claim that prevention (administered by “medical homes,” ACOs, HMOs or some other vehicle alleged to be superior in this department) can save money for Medicare, a state Medicaid program, or the health care system.
hardware and software required by EMRs every five years, concluded the universal adoption of EMRs will raise health care spending by 2 percent\(^9\) (see Appendix B).

**Claim: Quality improvement always leads to lower costs.**

The evidence: This claim appears to be based on the illogical premise (rarely articulated) that the intervention required to improve quality (be it the publication of report cards, the hiring of another nurse to educate diabetics on the management of their disease, or the purchase of an EMR) is free or so inexpensive it is not worth measuring its cost. But, of course, every intervention has its cost. Donald Berwick, a leader in the field of quality improvement (and, as the administrator of the Centers for Medicare and Medicaid Services, the man in charge of defining ACOs at the federal level) said this recently: “Right from the start, it has been one of the great illusions … that quality and cost go in opposite directions. There remains very little evidence of that.”\(^{10}\)

**II. The ACO is the latest example of a health policy that is not evidence-based**

The amorphous definition of the ACO, and the fact that ACOs don’t exist yet (even according to their proponents), makes an evidence-based discussion about ACOs extremely difficult (see Appendix C for a list of five influential papers by ACO proponents that you might want to read to see for yourself how vague their definition of ACO is). The vast difference between the conclusions of the Congressional Budget Office about ACOs’ ability to cut costs and those of Hsiao et al. in their report to the Vermont legislature also illustrates the problem. Hsiao and his colleagues attribute to ACOs the ability to cut total health care spending for the nonelderly by 10 percent over the decade 2015-2024.\(^{11}\) But the CBO estimates that ACOs will lower Medicare’s costs by less than one tenth of a percent over a decade. Specifically, the CBO estimates that ACOs would reduce Medicare spending over the 2010-2019 period by a little over $5 billion dollars out of a total of $6.8 trillion that Medicare will spend over that time period.\(^{12}\)

The definition promoted by ACO advocates might be called an “aspirational” definition; the ACO proponent expresses his or her hopes or aspirations for ACOs and characterizes their


\(^{10}\) “A deficiency of will and ambition’: A conversation with Donald Berwick,” *Health Affairs*, Web Exclusive, January-June 2005, W5-1-W5-9. Berwick was President and CEO of the Institute for Healthcare Improvement at the time of that interview, and is now the administrator of the Centers for Medicare and Medicaid Services.

\(^{11}\) See Table 2, page 34 of the report.

\(^{12}\) Congressional Budget Office, *Budget Options: Volume 1, Health Care*, December 2008, [http://www.cbo.gov/doc.cfm?index=9925](http://www.cbo.gov/doc.cfm?index=9925), accessed February 3, 2011. The CBO’s estimate for ACOs appears under Option 37, page 72. The CBO described this option as follows: “Under this option, groups of providers meeting certain qualifications would have the opportunity to participate … in Medicare as bonus-eligible organizations (BEOs). The concept of BEOs is similar to the accountable care organization models proposed by some researchers.” The CBO estimated this option would cut Medicare spending by $5.3 billion over the 2010-2019 period. According to the National Health Expenditure Accounts, Medicare will spend $6.8 trillion over this period (National Health Expenditure Projections 2009-2019, CMS, Table 2 [http://www.cms.gov/NationalHealthExpendData/downloads/NHE_Projections2009to2019.pdf](http://www.cms.gov/NationalHealthExpendData/downloads/NHE_Projections2009to2019.pdf)). Five billion dollars is less than one tenth of one percent of $6.8 trillion.

The CBO’s Option 38 more closely resembles the ACO discussed in the Hsiao report because primary care doctors are paid by partial capitation under this option. But CBO’s savings estimate for this option is virtually identical to its estimate for Option 37 -- $5.2 billion over the 2010-2019 period.
statement as a “definition.” The “definition” of an ACO offered by Richard Slusky in his testimony to you (just before I testified) is a good example. He defined an ACO as a “provider-based organization that takes responsibility for meeting the needs of a defined population with the goal of improving health, improving patient experience, and reducing per capita costs.” But that “definition” tells us what Mr. Slusky’s aspirations for ACOs are (he hopes they will be “accountable” to a third party or parties he did not identify, and he hopes they will improve quality and lower costs). Note that his definition does not tell us what an ACO is or how it is supposed to achieve the aspirations he articulated.

Imagine that your doctor tells you he has a green pill that will cure your arthritis (“defining” the green pill according to what the doctor hopes it will do is an example of an “aspirational” definition.) When you ask him what’s in the pill and how the pill will cure your arthritis, he says he doesn’t know because the pill doesn’t exist yet. When you ask him for research on the pill, he repeats he has no information on the pill because it doesn’t exist yet. He can only keep telling you it will be good for you. No patient should accept the recommendation of any doctor who offers such a flimsy argument for a pill or treatment. Similarly, no policy-maker should accept the current arguments made by ACO proponents, namely, that policy-makers should endorse ACOs even though ACOs cannot be defined, none exist yet, and there is, therefore, no peer-reviewed evidence to back up the claims made for ACOs.

III. When ACOs are finally defined, they will look like HMOs

Statements by ACO proponents indicate they anticipate ACOs will be identical to HMOs. ACO proponents urge Vermont legislators and other policy-makers to pay ACOs by capitation, which means a set fee per enrollee per year. Moreover, ACO proponents say ACOs will be required to deliver all necessary medical services to a “defined population.” Any entity which agrees to accept a set fee per enrollee per year and in return promises to cover the medical needs of that person during that year, has accepted insurance risk. That entity has become, in other words, an insurance company. In that event, the payment should be called a “premium” (not a “capitation payment”), and the insured person should be referred to as an enrollee or a policy-holder. Moreover, if the ACO, having become an insurance company, adopts the cost-control tactics pioneered by HMOs, the ACO should be called an HMO.13

IV. Recommendations

Mr. Slusky ended his presentation with a slide on “unanswered questions.” The legislature should not treat these and other unanswered questions as peripheral issues that can be settled once the ACO train has left the station. These questions must be answered before the legislature endorses ACOs in any fashion. The unanswered questions that must be answered now include:

13 My argument that the payment should be called a premium is not affected by the claim ACO proponents often make that the capitation/premium payments to ACOs will somehow be “risk adjusted” (at a cost that is never identified) to reflect the health status of the enrollee and other factors outside the ACO’s control. Risk-adjustment is extremely crude (the best methods used today explain no more than 15 percent of the variation in expenditures on enrollees), which means the “adjustments” to capitation/premium payments, if in fact they are made, will not relieve ACOs of insurance risk and will not, therefore, justify calling the payments something other than premiums.
• Will ACOs be paid as insurance companies are (with capitation/premiums which shift insurance risk), or will they be paid as doctors and hospitals are today (on a per service basis, that is, a basis that does not shift insurance risk)?
• If, as some ACO proponents suggest, the premium payments are to be “risk adjusted” so that ACOs that enroll (receive) sicker patients get higher premiums, how accurate will the risk-adjustment be and what are the consequences of inaccurate risk adjustment?
• What will it cost to collect the medical records and other data necessary to perform even crude risk adjustment of premiums for hundreds of thousands of Vermont residents every year?
• What will it cost to collect the medical records and other data necessary to risk-adjust grades on report cards?
• What effect will the routine collection of medical records on all Vermont citizens (for the purpose of risk adjusting premiums and report card grades) have on privacy and, therefore, on the willingness of patients to tell their doctors and nurses everything they need to know?
• Will patients be forced to join a particular ACO just because the doctor who accounts for a plurality of the patient’s visits or expenditures joined that particular ACO (or got swept into it when his or her clinic was bought out by an ACO)?
• If patients aren’t forced to join a particular ACO and can seek care anywhere they like, by what logic should clinics and hospitals within ACOs be punished or rewarded for the health outcomes of patients they do not see? Doesn’t rewarding and punishing doctors for factors outside their control defeat the entire purpose of ACOs?

If and when ACO proponents give you a useful definition of an ACO, and you decide you want to experiment with ACOs, you should experiment only on a limited basis, and you should seek out research, and conduct your own, to determine whether the tools ACOs will use (for example, pay-for-performance, electronic medical records, and utilization review) work as advertised.

Finally, if you discover that some of the tools ACOs are expected to use work, you should then ask yourselves, Must we turn the entire state over to a few ACOs in order to take advantage of these tools, or can these tools work if we do not change the current configuration of our health care system?

V. My own recommendations

Senator Pollina noted that I was quite critical of the managed care solutions promoted by ACO proponents. He then asked whether I had a solution. I answered, “The Hsiao report minus ACOs.” By that I meant the single-payer system recommended by Hsiao et al. but without the layer of HMOs, dressed up as ACOs, recommended by the Hsiao report. If the Vermont governor and legislature create a system in which one payer, the government, funnels all or most health care dollars through a layer of insurance companies called ACOs, that system will not be a single-payer system. It will be a multiple-payer system financed heavily by the state government.
Such a system might better be called a single-trough system – a system in which all insurance companies derive their income from the same public trough. A single-trough multiple-payer system cannot possibly save as much money as a true single-payer system.

Note that a single-payer system has the tools to address many of the concerns expressed by proponents of ACOs, including the “arms race” between hospitals that Mr. Slusky discussed in his testimony.

Thank you for giving me the chance to testify. I would be glad to supply more documentation if one of you asks, or to reply to criticism of my testimony or this memo.

Appendix A: Examples of significant underuse of medical care in the US

**Table A1: Underuse, even among the insured, is rampant**

- Nine of ten nursing homes have staff levels below “minimally necessary” levels.\(^{(a)}\)

- Eight of ten Americans insured with first-dollar coverage do not seek treatment for serious symptoms such as loss of consciousness or unexplained bleeding.\(^{(b)}\)

- Two-thirds of all Americans with mental disorders do not seek treatment.\(^{(c)}\)

- Three-fifths of elderly Medicare beneficiaries diagnosed with gall stones plus inflammation of the gall bladder, one or several bile ducts, or the pancreas, or more than one of these inflammatory conditions, failed to have a cholecystectomy (surgery to remove the gall bladder).\(^{(d)}\)

- Half of all insured Americans suffering from high blood pressure are not getting treated.\(^{(e)}\)

- Half of insured patients who should have an angiogram do not get it.\(^{(f)}\)

- Half of all Americans suffering from depression do not get treatment for it, and four-fifths do not get adequate treatment.\(^{(g)}\)

- Half of newborns are discharged early, and two-thirds of those receive delayed follow-up care.\(^{(h)}\)

- A third of Americans do not see a dentist at least once a year.\(^{(i)}\)

- Three-tenths of the nation's diabetics do not know they have diabetes.\(^{(j)}\)

- One-fourth of insured patients who should have either bypass surgery or angioplasty get neither.\(^{(k)}\)

- One-seventh of those with disabilities who have a prescription fail to take their drugs as prescribed.\(^{(l)}\)
• One-eighth of insured adult Americans either do not get medical care they need or they delay getting it.\(^{(m)}\)


(h) Alison A. Galbraith et al., “Newborn early discharge revisited: Are California newborns receiving recommended postnatal services?” *Pediatrics* 2003;111:364-371. The authors defined early discharge as “a post-delivery stay of less than 48 hours for vaginal deliveries and 96 hours for Caesarean sections” (364). This standard was endorsed in 1992 by the American Academy of Pediatrics (AAP) and the American College of Obstetricians and Gynecologists. By 2001, 43 states had passed legislation requiring third-party payers to meet these postnatal stay recommendations. The AAP amended its guideline in 1995 to add recommendations on how quickly in-office or home follow-up should occur.


(k) Lucian L. Leape et al., “Underuse of cardiac procedures: Do women, ethnic minorities, and the uninsured fail to receive needed revascularization?” *Annals of Internal Medicine* 1999;130:231-233. The study by Leape et al. examined revascularization underuse rates for both insured and uninsured patients, and reported that insurance status had no bearing on underuse rates; 26 percent of both the insured and uninsured patients failed to get revascularization surgery. Laouri et al. also conducted a study of the revascularization underuse rate and reported a 25 percent underuse rate among a group of both insured and uninsured, but the underuse rate for the uninsured was worse than for the insured (Marianne Laouri et al., “Underuse of coronary revascularization procedures: Application of a clinical method,” *Journal of the American College of Cardiology* 1997;29:891-897).


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**Table A2: Underuse of invasive cardiac procedures among insured patients is much worse than overuse**

<table>
<thead>
<tr>
<th>Type of service</th>
<th>Extent of overuse (year of study)</th>
<th>Extent of underuse (year of study)</th>
</tr>
</thead>
</table>

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246
Angiography*  17%  (1987)    44%  (1997)
  4%  (1993)

CABG*  14%  (1988)
  2%  (1993)
  2%  (1995)

Angioplasty*  4%   (1993)

Revascularization*  25%  (1997)
  26%   (1999)

* An angiogram is a moving x-ray of the coronary arteries. CABG stands for coronary artery bypass graft. Angioplasty is a procedure in which a balloon is inserted into a coronary artery and expanded to open the artery. Revascularization refers collectively to CABG and angioplasty.


Appendix B: Evidence from the peer-reviewed literature and remarks by experts on the performance of HMOs and six mechanisms available to ACOs to reduce costs

HMOs and managed care

“For elderly patients … treated under Medicare, declines in physical health were more common in HMOs than in FFS plans (54 percent versus 28 percent).”

Source: John E. Ware, Jr., et al., “Differences in four-year health outcomes for elderly and poor, chronically ill patients treated in HMO and fee-for-service systems: Results from the Medical Outcomes Study,” *Journal of the American Medical Association* 1996;276:1039-1047.

“The small body of reliable studies comparing the quality of MCP [managed care plan] with that of FFS [fee-for-service] care indicates that the quality of care provided by MCPs tends to be equal or inferior to that provided by FFS plans.”


“Managed care is basically over. People hate it, and it's no longer controlling costs. Health-care inflation is now back in the double digits. So if it's not saving money, then why should we have it? But like an unembalmed corpse decomposing, dismantling managed care is going to be very messy and very smelly, and take awhile.”

“Events of the past year demonstrate beyond a doubt that managed care has failed – and failed dismally. The greatest single ethical crisis facing American health care as we move into the new year is what to do about it.”


Coordinated care

“To study whether care coordination improves the quality of care and reduces Medicare expenditures, the Balanced Budget Act of 1997 mandated that the Secretary of Health and Human Services conduct and evaluate care coordination programs…. [p. 604] None of the [15] programs reduced regular Medicare expenditures, even without the fees paid to the care coordination programs. Only two programs had a significant difference in expenditures and, in both of these programs, the treatment group [that is, the group getting “coordinated care”] had higher expenditures.” [p. 611]


Utilization review

“Although utilization review is widely used to control health care costs, its effect on patterns of health care is uncertain….We compared the health services provided to 3702 enrollees whose requests were subjected to utilization review (the review group) with the services provided to 3743 enrollees whose requests received sham review and were automatically approved for insurance coverage (the non-review group)…. During the study period, the mean age-adjusted insurance payments per person were $7,355 in the review group and $6,858 in the non-review group (P = 0.06).”


Prevention

“Although some preventive services do save money, the vast majority reviewed in the health economics literature do not.”


Disease management

“On the basis of its examination of peer-reviewed studies of disease management programs…. CBO finds that to date there is insufficient evidence to conclude that disease management programs can generally reduce the overall cost of health care services.”
“Even for the most optimistic picture – a 30-year horizon and assuming no turnover [patients stay with the same plan for 30 years] – the net effect on diabetes-related costs would be an increase of about 25%” (p. 261). “The [disease management] program used in [this] study may be too expensive for health plans or a national program to implement” (p. 251).

“[T]he results of our review suggest that, to date, support for population-based disease management is more an article of faith than a reasoned conclusion grounded on well-researched facts. ... Most of the evidence on disease management programs to date is derived from small high-intensity programs focusing on high-risk patients that are typically run as part of a demonstration project by the providers at a single site. This evidence suggests that those programs typically lead to better processes of care, but the evidence for improved long-term health outcomes and cost savings is inconclusive. ... [T]he vendor-run assessments typically do not meet the requirements of peer-reviewed research ....”

“Despite … extensive adoption of quality measurement and reporting, little research examines the effect of public reporting on the delivery of health care, and even less examines how report cards may improve care. … [T]he potential … negative consequences of public reporting are largely unexplored.”

“Performance-based contracting gave providers of substance abuse treatment financial incentives to treat less severe OSA [Office of Substance Abuse] clients in order to improve their
Electronic medical records

“[W]e analyzed physician survey data on 255,402 ambulatory patient visits…. [p.E1] …. [N]either EHRs [electronic health records] nor CDS [clinical decision support] was associated with ambulatory care quality, which was suboptimal for many indicators. We noted no association between EHR use and care quality for 19 indicators and a positive relationship for only one indicator. We also found CDS use associated with better quality for only one of 20 quality indicators, refuting our hypothesis that CDS would be associated with improved care quality.” [p E4]


“We linked data from an annual survey of computerization at approximately 4000 hospitals for the period from 2003 to 2007 with administrative cost data from Medicare Cost Reports and cost and quality data from the 2008 Dartmouth Health Atlas. We calculated an overall computerization score and three subscores based on 24 individual computer applications, including the use of computerized practitioner order entry and electronic medical records. We analyzed whether more computerized hospitals had lower costs of care or administration, or better quality…. As currently implemented, hospital computing might modestly improve process measures of quality but does not reduce administrative or overall costs.”
Appendix C: Five papers promoting Accountable Care Organizations by leading ACO advocates

This appendix presents citations to, and the abstracts for, five of the most influential papers on ACOs. The first four papers were co-authored by Elliot Fisher, the most prominent ACO proponent and the man who coined the phrase “accountable care organization” along with Medpac chairman Glenn Hackbarth at a November 2006 meeting of Medpac.

The first paper listed was the first of dozens Fisher has written or co-authored on the subject. It appeared one month after his presentation to the November 2006 Medpac meeting. Fisher entitled his presentation, “Extended hospital medical staffs,” but when Chairman Hackbarth referred to the entities as “accountable organizations” in his commentary after Fisher’s presentation, Fisher said he liked the term. The phrase “extended hospital medical staffs” quickly disappeared from the lingo of ACO proponents and was replaced by “ACO.”

The other four papers elaborate on Fisher’s vague definition of an ACO. I include the fifth paper below because it contains what may be the least imprecise definition, as of this date, of what an ACO is going to be. The fifth paper urges CMS to do what Fisher has done, namely, to refrain from defining ACOs precisely in order to encourage providers to participate in the ACO program Congress authorized CMS to set up.

None of these papers can be said to document that ACOs will work as advertised. All that can be said about them is that they reveal the aspirations of ACO proponents. Revealing aspirations is, of course, quite different from presenting a clear description of what ACOs will look like, the mechanisms that will allegedly cut costs and improve quality, and peer-reviewed evidence supporting the claims made for ACOs.

(1) Elliot Fisher et al., “Creating Accountable Care Organizations: The Extended Hospital Medical Staff: A new approach to organizing care and ensuring accountability,” *Health Affairs* 2007: w44–w57 [published online 5 December 2006; 10.1377/hlthaff.26.1.w44]

Many current policies and approaches to performance measurement and payment reform focus on individual providers; they risk reinforcing the fragmented care and lack of coordination experienced by patients with serious illness. In this paper we show that Medicare beneficiaries receive most of their care from relatively coherent local delivery systems comprising physicians and the hospitals where they work or admit their patients. Efforts to create accountable care organizations at this level—the extended hospital medical staff—deserve consideration as a potential means of improving the quality and lowering the cost of care.


To succeed, health care reform must slow spending growth while improving quality. We propose a new approach to help achieve more integrated and efficient care by fostering local organizational accountability for quality and costs through performance measurement and “shared savings” payment reform. The approach is practical and feasible: it is voluntary for providers, builds on current referral patterns, requires no change in benefits or lock-in for beneficiaries, and offers the possibility of sustained provider incomes even as total costs are constrained. We simulate the potential expenditure impact and show that significant Medicare savings are possible.

Patient Protection and Affordable Care Act establishes a national voluntary program for accountable care organizations (ACOs) by January 2012 under the auspices of the Centers for Medicare and Medicaid Services (CMS). The act also creates a Center for Medicare and Medicaid Innovation in the CMS. We propose that the CMS allow flexibility and tiers in ACOs based on their specific circumstances, such as the degree to which they are or are not fully integrated systems. Further, we propose that the CMS assume responsibility for ACO provisions and develop an ordered system for learning how to create and sustain ACOs. Key steps would include setting specific performance goals, developing skills and tools that facilitate change, establishing measurement and accountability mechanisms, and supporting leadership development.


The concept of accountable care organizations (ACOs) has been set forth in recently enacted national health reform legislation as a strategy to address current shortcomings in the U.S. health care system. This paper focuses on implementation issues related to these organizations, building on some initial examples. We seek to clarify definitions and key principles, provide an update on implementation in the context of other reforms, and address emerging issues that will affect the organizations’ success. Finally, building on the initial experience of several organizations that are implementing accountable care and complementary reforms, we propose a national strategy to identify and expand successful approaches to accountable care implementation.


The Affordable Care Act created accountable care organizations (ACOs), which will be a new part of Medicare as of January 2012, together with a “shared savings program” that will modify how these organizations will be paid to care for patients. Accountable care organizations have the potential to lower costs, improve the quality of care, facilitate delivery system reform, and promote innovation in health care. The federal government is set to create rules to regulate these organizations and has broad discretion to allow them to pursue a variety of approaches. Drawing on experience from some ACO pilot programs and the Medicare Part D prescription drug coverage program, we argue that regulations governing accountable care organizations should be flexible, encouraging of diversity and innovation and allowing for changes over time based on lessons learned. We recommend using regulations as a general framework, while relying on notices and other guidance below the regulatory level to spell out specific requirements.

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**Appendix D: Research on “medical homes” cited by Hsiao et al.**

ACO proponents often refer to “medical homes.” It is unclear why. They imply that “medical homes,” also called “patient-centered medical homes” (PCMHs), use tools that ACOs will use, that these tools have been shown to work in the hands of PCMHs, and thus these tools can be expected to work when ACOs use them. It appears, in other words, that ACO proponents think PCMHs may justifiably be treated as prototypes of ACOs.
In their February 2011 report to the Vermont legislature, Hsiao et al. devoted a section to PCMHs. They claimed that the research on “patient-centered medical homes” (they called it “national evidence”) indicates that the effect of these entities on costs ranges from “no discernable effect [to] savings of up to 20 percent.” In support of this claim, they cite four experiments underway outside of Vermont that are apparently designed to test the ability of “medical homes” to reduce costs: experiments conducted by Group Health (now an affiliate of Kaiser Permanente); Geisinger Health System in Pennsylvania; Johns Hopkins and Kaiser Permanente; and Community Care of North Carolina. For three reasons, it is impossible to draw firm conclusions from these studies.

First, according to the CBO, research that tested simultaneously all the attributes that PCMHs are supposed to have has never been done. As the CBO observed in its December 2008 report to Congress on how it would score various reform proposals, it is difficult to predict the impact of PCMH’s on cost because “[s]tudies that support the medical home’s potential for reducing spending have not directly assessed a complete version of the approach but rather certain elements of it.” The studies Hsiao et al. reviewed suffer from this defect.

The second reason it is difficult to reach any conclusion based on the four studies Hsiao et al. reviewed is that all but one (the Johns Hopkins-Kaiser study) failed to take into account some or all of the intervention costs, that is, the cost of creating and administering PCMHs.

The third reason is that it is impossible to tell where Hsiao et al. found evidence for the claim that PCMHs can cut costs by any amount, much less 20 percent. None of the four experiments testing PCMH-like entities that Hsiao et al. reviewed have demonstrated reduced costs. I review each of these four experiments in the paragraphs below.

Citing a paper by Reid et al., Hsiao et al. reported that the Group Health’s “quasi-experimental PCMH pilot … demonstrated … savings [of] about 2 percent of total expenditures,” but that this was not statistically significant. Moreover, a substantial portion of the cost of the experiment were not subtracted from the savings (the portion in question was described by Reid et al. as expenditures on “various system-wide organizational and information technology improvements that facilitated the medical home”). Finally, the authors of the paper by Reid et al. either received salaries from Group Health or received salaries from, and were shareholders in, Group Health Permanente, the physician group that contracts with Group Health.

The second experiment with an entity that Hsiao et al. characterized as like a PCMH was an experiment at clinics affiliated with Johns Hopkins and Kaiser in which a nurse provided educational services to the sickest and oldest patients of eight primary-care clinics. (It is an indication of how vague the definition of PCMH is that the simple addition of a nurse to the staff of a primary care clinic turns the clinic into a PCMH). According to a paper reporting “preliminary” results on this experiment by Leff et al., the experiment produced a savings of

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15 Hsiao et al., op cit., 51.
16 CBO, op cit., 77.
17 Hsiao et al., op cit., 51.
$75,000 per nurse after the first eight months of the experiment. But Leff et al. (and Hsiao et al.) reported that this difference was not statistically significant.\(^{19}\)

The third PCMH-like experiment cited by Hsiao et al. was one conducted by Geisinger Health System. Hsiao et al. reported that Geisinger’s “PCMH pilot … demonstrated 4-7 percent savings.” However, the paper they cited cannot be said to have demonstrated anything about a PCMH pilot. The paper, published by the Commonwealth Fund, merely asserted in passing – in a single sentence – that Geisinger’s “Provenhealth Navigator” program “contributed to a 7 percent savings in medical costs.”\(^{20}\) The Commonwealth Fund authors “documented” this sentence with a paper published in *Health Affairs*, but an examination of that paper reveals the same problem: It merely asserted in passing – in a single sentence – that “very preliminary data show … 7 percent total medical cost savings.”\(^{21}\) The *Health Affairs* paper made no attempt to document this claim and offered no evidence on the question of whether the alleged seven-percent savings took into account the cost of administering the “Navigator” program. The *Health Affairs* paper was, moreover, written by three authors, two of whom work for Geisinger and one of whom (Karen Davis of the Commonwealth Fund) serves on the Geisinger’s board of directors.

The fourth experiment with an entity that Hsiao et al. considered to be a PCMH is one being conducted by Community Care of North Carolina (CCNC), which is administered by the Office of Managed Care within North Carolina’s Medicaid program. It is not clear why Hsiao et al. characterize CCNC as a “statewide PCMH project.”\(^{22}\) According to a paper by Steiner et al. about CCNC, “A full implementation of the patient-centered medical home, as recently defined at a national level, has not occurred.”\(^{23}\)

Hsiao et al. cited a 2007 letter from a consulting firm, Mercer Human Resources Consulting Group, to the head of North Carolina’s Office of Managed Care for their conclusion that CCNC’s PCMH’s saved $230 million in 2005.\(^{24}\) There are three problems with this citation. First, the Mercer letter indicates Mercer estimated savings only for what Mercer called the AFDC component of North Carolina’s Medicaid program, not the entire CCNC program. Second, Mercer’s description of its methodology is short and unacceptably vague.\(^{25}\) Third,

\(^{19}\) Bruce Leff et al., “Guided care and the cost of complex health care: A preliminary report,” *American Journal of Managed Care* 2009; 15:555-559. For some reason Hsiao et al. reported that the savings in this experiment amounted to $113 per member per month. That figure does not appear in the paper by Leff et al.


\(^{22}\) Hsiao et al. op cit., 52.


\(^{25}\) Mercer attempted to compare the actual costs of the women-and-children’s portion of Medicaid in 2005 with what Medicaid’s costs might have been that year if CCNC’s efforts to control costs had not occurred that year. The most difficult calculation in such a comparison is, obviously, estimating what might have been. Mercer sought to do that by adding up the costs for a previous period (it appears the historical period they chose was the fiscal years 2000, 2001, and 2002), and then “trending” those data forward to 2005. How this “trending” was done is obviously crucial, but Mercer gives no hint as to how they did it. Mercer’s letter says only that they used “annualized utilization and unit cost trend components.”
Mercer did not subtract from the alleged savings all the costs of implementing the interventions that supposedly reduced emergency room use and other types of medical services.\textsuperscript{26}

The intervention costs incurred by CCNC include the cost of hiring more nurses and other health care professionals, as well as the cost of administering the CCNC program. CCNC’s administrative costs include the cost of CCNC’s central office and its multiple activities. In their description of CCNC, Steiner et al. describe a “statewide infrastructure” which provides the financial support for the 14 networks of primary care providers that make up CCNC, as well as “other activities, such as analyzing data, convening meetings, and developing protocols.”\textsuperscript{27} Steiner et al. report that “many networks augment this state support with grants from local and national organizations.”\textsuperscript{28} Steiner et al.’s paper is typical of papers about CCNC and other experiments with PCMH-like entities in that it devotes much attention to CCNC’s efforts to improve quality and almost no attention (other than citing the Mercer letter) to the cost of doing that.

The following list of revenue sources for CCNC providers, sources above and beyond the state’s traditional Medicaid payments, suggests CCNC’s total intervention costs are substantial:

1. Monthly capitation payments of $2.50 per member per month that CCNC pays to clinics designated as “homes” to cover the cost of “care coordinators”;
2. $3.00 per-member-per-month payments made by CCNC to the networks to which the clinics belong to pay for disease management activities;
3. Grants that CCNC makes to clinics and networks or which the clinics or networks apply for on their own; and
4. An increase in Medicaid reimbursement for physicians to 95 percent of the Medicare fee schedule.

This last fact is generally ignored by ACO proponents. Mercer, Hsiao et al., and Steiner et al., for example, do not mention it. According to a report on CCNC by the American Academy of Family Physicians, CCNC doctors are paid 95 percent of the Medicare fee schedule.\textsuperscript{29} It would seem reasonable to add the additional cost of the higher fees to the cost of CCNC’s interventions. That was not done by Mercer.

To sum up, even assuming the terms PCMH and ACO have useful definitions, the “national evidence” on PCMHs that Hsiao et al. present does not support the “prototype” rationale for invoking PCMHs in support of ACOs. The evidence Hsiao et al. presented did not support their claim that PCMHs have been shown to save money, much less as much as 20 percent of health care spending.

\textsuperscript{26} Letter from Kevin Lurito, 2.
\textsuperscript{28} Ibid., 363.
\textsuperscript{29} American Academy of Family Physicians, \textit{A Provider-led Strategy for Delivering Cost-effective Care to Medicaid Beneficiaries}, June 2006, ii, http://www.idph.state.ia.us/hcr_committees/common/pdf/medical_home/executive_summary.nc.pdf, accessed February 15, 2011. This paper states that physicians credit the higher fee schedule with making it possible to participate in CCNC. Here is a quote from the paper: “Primary care physicians interviewed reported their Medicaid patients received overall better care, and caring for Medicaid patients was more desirable, due to their participation in CCNC, particularly for the following reasons: Added services of case managers; added pmpm [per member per month] care management fee [of $2.50 pmpm] and enhanced Medicaid fee-for-service payment (95% of the Medicare fee schedule). . . .” (iii)
The United States has been singularly unsuccessful at controlling health care spending. During the past four decades, American policymakers and analysts have embraced an ever changing array of panaceas to control costs, including managed care, consumer-directed health care, and most recently, delivery system reform and value-based purchasing. Past panaceas have gone through a cycle of excessive hope followed by disappointment at their failure to rein in medical care spending. We argue that accountable care organizations, medical homes, and similar ideas in vogue today could repeat this pattern. We explain why the United States persistently pursues health policy fads—despite their poor record—and how the promotion of panaceas obscures critical debate about controlling health care costs. Americans spend too much time on the quest for the “holy grail”—a reform that will decisively curtail spending while simultaneously improving quality of medical care. The combination of these ambitious goals and our dismal record of cost containment has not diminished the health policy community’s endless enthusiasm for the latest fad. We have run through a truly staggering list of proposed panaceas: Health Maintenance Organizations (HMOs), Preferred Provider Organizations (PPOs), managed care, capitation, integrated delivery systems, health savings accounts (HSAs) and consumer-directed care, pay for performance (P4P), health information technology (HIT), comparative effectiveness research (CER) and much more. Now, bundled payment, value-based purchasing, patient-centered medical homes, and accountable care organizations (ACOs) have emerged as the solutions of the day, propelled forward by the 2010 Patient Protection and Affordable Care Act (ACA) and by private sector initiatives.

Reforms aimed at slowing health care spending have encompassed (and often combined) a range of organizational (HMOs, ACOs), financial (bundling, HSAs, P4P, ACOs), and informational (HIT, CER) approaches. Some reforms have called for more patient cost-sharing, others for tighter control of medical services by health plans, and still others for more evidence to guide medical decision-making. Thus the U.S. has moved rhetorically from the era of managed care to consumer-directed health care and now into the era of value purchasing and delivery system reform. The range of available ideas is evidently narrow enough that we are now repeating fads—yesterday’s conviction that capitation held the key to stemming the tide of rising costs is reborn in today’s faith in bundling while integrated delivery systems and HMOs have morphed into ACOs.

The failure to control health care spending has been accompanied by a distinctive dynamic. Since the 1970s, American policymakers and policy analysts have relentlessly searched for the “the Big Fix,” a reform that will decisively rein in spending and simultaneously improve the coordination and quality of medical care. The combination of these ambitious goals and our dismal record of cost containment has not diminished the health policy community’s endless enthusiasm for the latest fad. We have run through a truly staggering list of proposed panaceas: Health Maintenance Organizations (HMOs), Preferred Provider Organizations (PPOs), managed care, capitation, integrated delivery systems, health savings accounts (HSAs) and consumer-directed care, pay for performance (P4P), health information technology (HIT), comparative effectiveness research (CER) and much more. Now, bundled payment, value-based purchasing, patient-centered medical homes, and accountable care organizations (ACOs) have emerged as the solutions of the day, propelled forward by the 2010 Patient Protection and Affordable Care Act (ACA) and by private sector initiatives.

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The United States has the most expensive medical care system in the world by a large margin, with per capita expenditures of $7960 in 2009. Moreover, despite a recent slowdown due largely to the recession’s impact, the U.S. is projected to spend over $30 trillion on medical care in the coming decade. Over four decades after President Richard Nixon declared a cost crisis, the United States has yet to get a firm grip on rising medical care costs.
health care spending. Why do American analysts keep searching for the Holy Grail in health policy and what impact has that quest had on our medical care? American health policy is dominated by the search for these policies largely because of their political appeal. Reform labels promise to modernize and rationalize the health care system. Who can oppose the march of progress to replace paper medical records or our ostensibly antiquated fee-for-service payment arrangements? How can anyone oppose reforms that promise to curb medical spending and yet improve health outcomes? Indeed, because panaceas promise to moderate spending by reducing ineffective care, improving coordination, and keeping people healthy, such policies offer the prospect of painless cost control.\(^5\)

That is powerfully alluring for politicians who want to avoid the conflict associated with policies such as imposing budgetary caps, limiting payments, restricting the availability of services, or cutting benefits. Further, if new organizations can be created to handle the task of making the difficult choices, or if new payment tools can be adopted that automatically unleash the right incentives, politicians can avoid blame for unpopular decisions. Innovation and its promise to enhance efficiency is an appealing substitute for policy realism and political will.

Many of these reform ideas are framed in ways that makes rational criticism seem implausible. Few will defend “medical homelessness” or argue that the U.S. medical care system needs less coordinated care. Indeed, a key characteristic of many reforms is that their descriptive labels are not actually descriptive, but instead comprise persuasive definitions.\(^6\) We used to label health care organizations by their primary characteristics; Kaiser Permanente was accurately known as a “prepaid group practice.” But beginning with the Nixon administration’s campaign to promote Health Maintenance Organizations in the 1970s, policymakers and analysts increasingly started to label organizations and policies more by their aspirations, rather than by their substantive characteristics. “Managed care” and “patient-centered medical homes” exemplify such marketing slogans, terms that imply success by their very use. Yet many so-called managed care plans actually don’t do much to manage care.\(^7\) And whether a health care institution is “patient centered” is an empirical question (assuming we could agree on a definition of what it means to be patient-centered). In other words, the language used to describe many health reforms is meant to convince rather than to describe and explain, and that obscures realistic assessments of their appeal and impact.

Another reason that Americans look for the “big fix” is the absence of a coherent national health system. In most industrialized democracies, health care spending is controlled “upstream” through budgeting, fee schedules, and systemwide limits on medical capacity. But adopting such measures in the U.S. political system has been and remains extraordinarily difficult. Restraining spending requires reducing the income of health care providers who historically have been effective at resisting robust cost controls.\(^8\) In addition, government measures to reduce spending growth invite charges of rationing that tap into many Americans’ distrust of government—recall the hysteria over mythical “death panels” during the 2009-2010 health care reform debate. And America’s fragmented political institutions give opponents multiple chances to defeat or weaken proposals to limit spending.

In fact, the U.S. has not had a national health system at all and consequently, cost containment efforts often focus “downstream” to regulate the costs of individual medical encounters.\(^9\) These efforts are typically led by individual employers and health plans, actors that by definition cannot pursue systemwide solutions. Our enthusiasm for innovative and organizational solutions to cost containment is, then, partly a product of our political incapacity to produce universal health insurance. Belief in “American exceptionalism”—that as a nation we are too different culturally, socially, and politically to learn from other countries—has reinforced America’s tendency to look inward for solutions to control health care spending.

**Problems with Panaceas**

There are five major problems with the endless search for cost control panaceas. The first is that the yearning for a transcendent solution inevitably produces a cycle of exaggerated expectations, followed by deep disappointment. The problem, as Bruce Vladeck argues, begins when a “modestly successful innovation is hyped as the unique and unitary solution to some complex, persistent problem.”\(^10\) Thus many policy analysts celebrated the rise of managed care during the early to mid-1990s as the solution to America’s health care spending problem. But as health care costs started to accelerate again, analysts quickly turned to writing managed care’s obituary.

Similarly, it will be difficult for ACOs to meet the lofty expectations that now surround them. ACO euphoria is evident in Ezekiel Emanuel and Jeffrey Liebman’s foolhardy prediction that “By 2020, the American health insurance industry will be extinct,” replaced entirely by ACOs.\(^11\) Given the hype about their transformational impact, it is worth remembering the Centers for Medicare and Medicaid Services (CMS) median estimate that the ACO Shared Savings Program will reduce federal government spending on Medicare by only a total of $470 million during 2012-15, a tiny fraction of total program expenditures.\(^12\) Moreover, a recent review by the Congressional Budget Office of disease management, care coordination, and value-based payment demonstrations—all ideas currently touted as solutions to Medicare’s financing challenges—found that “most programs have not reduced Medicare spending.”\(^13\)
Second, because we invest so much hope and faith in new solutions, and because persuasive labels make these ideas appear self-evidently right, the real-world challenges in making policies work are commonly overlooked. Aspirations are undercut by implementation problems, unanticipated outcomes and political constraints. Managed care triggered backlash from providers and patients. Supposedly the least effective form of managed care—PPOs—surprisingly emerged as the victor in the market by the beginning of the 2000s. ACOs may enhance integration of some providers and foster better coordination of some care. But the incentives to create ACOs may also lead to greater consolidation of health care providers and to hospitals purchasing physician practices, both of which could raise overall health spending.

A third problem is generalizability. The enthusiasm for particular reforms often stems from positive results in a particular geographic and institutional settings: Kaiser Permanente, the Palo Alto clinic and the Mayo Clinic were held up as exemplars in the past, today they are joined by the Veterans Administration, Geisinger, and Intermountain. These institutions have in many cases produced impressive results. But the success of any particular institution does not imply that its performance can be extrapolated to the whole of American medicine. The difficulties Kaiser has had in making its model work outside of its traditional regions illustrates this point. And the VA has a level of organizational centralization that is not found in most other areas of American medicine. Creating new types of organizations is extraordinarily difficult and replicating them across different institutional, political, economic and geographic settings is even more so.

A fourth problem is that these reform ideas usually focus on reducing the utilization of medical services. There are, to be sure, many instances of low-value medical care in the U.S. worth reducing. And in the past decade, increases in Medicare expenditures on physician services have been driven mostly by growth in service volume and intensity. But a predominant focus on utilization diverts us from other important sources of high health care spending. The difference between Canadian and American spending on hospital and physician care, according to a recent study, is mostly explained by prices and administrative expenses, reflecting the lower costs of Canada’s single-payer system. Only 14% of the difference is attributable to higher utilization of medical services in the U.S. Yet American policy analysts continue to focus on ways to limit excessive utilization, while giving comparatively short shrift to policies—such as all-payer reform—that could lower prices and administrative costs.

The final and most serious problem is that the American quest for cost control fads hasn’t worked—which helps explain why the U.S. keeps searching for more panaceas. Medical care spending did slow for a time during the managed care era but, emblematic of the issues described above, much of that slowdown was attributable to price restraints. Still, the overall record of health care cost control in the U.S. is dismal. That doesn’t mean that the latest fad of delivery system reform is a bad thing. Perhaps these and other reform ideas currently in vogue will produce some savings. But even if they don’t reduce spending, reforms that encourage ACOs and medical homes will be worthwhile if they improve the delivery and quality of care, and patient outcomes. Cost savings should not be the only metric by which we judge the desirability of health care reforms.

**Emulation, Not Innovation**

We do not know how far ACOs will spread or what impact they, medical homes or other delivery system reforms will have on health care spending. But our history of failed cost control offers sobering lessons about exaggerated expectations, the limits of organizational reforms, and the recurring temptation to oversell reform ideas like ACOs as panaceas and the harbingers of a new, radically transformed, and vastly improved health care system. Such ideas should be seen as supplements, rather than the basis for a national strategy of health care cost control.

We believe that the U.S. needs less innovation and more emulation. That is, in order to control costs effectively Americans should focus less on (re)inventing the latest delivery system or payment method, and instead pay more attention to what other countries do to slow health care spending. Global budgets, fee schedules, systemwide payment rules, and concentrated purchasing power may not be modern, exciting or “transformational”. But they have the advantage of working.

**Conflict of Interest:** The authors declare that they do not have a conflict of interest.

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Hospital Computing and the Costs and Quality of Care: A National Study

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ABSTRACT

BACKGROUND: Many believe that computerization will improve health care quality, reduce costs, and increase administrative efficiency. However, no previous studies have examined computerization’s cost and quality impacts at a diverse national sample of hospitals.

METHODS: We linked data from an annual survey of computerization at approximately 4000 hospitals for the period from 2003 to 2007 with administrative cost data from Medicare Cost Reports and cost and quality data from the 2008 Dartmouth Health Atlas. We calculated an overall computerization score and 3 subscores based on 24 individual computer applications, including the use of computerized practitioner order entry and electronic medical records. We analyzed whether more computerized hospitals had lower costs of care or administration, or better quality. We also compared hospitals included on a list of the “100 Most Wired” with others.

RESULTS: More computerized hospitals had higher total costs in bivariate analyses (r = 0.06, P = .001) but not multivariate analyses (P = .69). Neither overall computerization scores nor subscores were consistently related to administrative costs, but hospitals that increased computerization faster had more rapid administrative cost increases (P = .0001). Higher overall computerization scores correlated weakly with better quality scores for acute myocardial infarction (r = 0.07, P = .003), but not for heart failure, pneumonia, or the 3 conditions combined. In multivariate analyses, more computerized hospitals had slightly better quality. Hospitals on the “Most Wired” list performed no better than others on quality, costs, or administrative costs.

CONCLUSION: As currently implemented, hospital computing might modestly improve process measures of quality but does not reduce administrative or overall costs.

Enthusiasm for health information technology spans the political spectrum, from Barack Obama to Newt Gingrich. Congress is pouring $19 billion into it. Health reformers of many stripes see computerization as a painless solution to the most vexing health policy problems, allowing simultaneous quality improvement and cost reduction.

Such optimism is not new. In the 1960s and 1970s, 16-mm films from IBM and the Lockheed Corporation touted hospital computing systems as a means to reduce paperwork and improve care.1,2 By the 1990s, opinion leaders confidently predicted the rapid adoption and substantial benefits of computerized patient records,3,4 including massive administrative savings.5,6

In 2005, one team of analysts projected annual savings of $77.8 billion,7 whereas another foresaw more than $81 billion in savings plus substantial health gains8 from the nationwide adoption of optimal computerization. Today, the federal government’s health information technology website states (without reference) that “Broad use of health IT will: improve health care quality; prevent medical errors; reduce health care costs; increase administrative efficien-
cies; decrease paperwork; and expand access to affordable care.9

Unfortunately, these attractive claims rest on scant data. A 2006 report prepared for the Agency for Healthcare Research and Quality,10 as well an exhaustive systematic review,11 found some evidence for cost and quality benefits of computerization at a few institutions, but little evidence of generalizability. Recent Congressional Budget Office reviews have been equally skeptical, citing the slim and inconsistent evidence base.12,13 As these reviews note, no previous studies have examined the cost and quality impacts of computerization at a diverse national sample of hospitals.

MATERIALS AND METHODS

Data Sources

We analyzed data from 3 sources: the Healthcare Information and Management Systems Society (HIMSS) Analytics annual survey of hospitals’ computerization; the Medicare Cost Reports submitted to the Centers for Medicare and Medicaid Services; and the 2008 Dartmouth Health Atlas, which compiles Centers for Medicare and Medicaid Services data on the costs and quality of care that hospitals deliver to Medicare patients.

We used HIMSS surveys for the years 2003 to 2007 to assess the degree of hospital computerization. The survey’s methods underwent changes in 2005. It annually queries approximately 4000 hospitals on the implementation of specific computer applications. It is the largest and most comprehensive longitudinal source of information regarding hospitals’ adoption of information technology.

To quantify each hospital’s computerization, we created a score (range, 0-1.00) by summing the number of computer applications reported as fully implemented and dividing by the number of applications for which data were available (a maximum of 24 applications for 2005-2007, 21 applications for 2003-2004). We used similar methods to calculate 3 subscores indicative of the degree of computerization in 3 domains: clinical, patient-related administration, and other administration. Finally, we examined the impact of 2 individual applications generally thought key to improving quality and efficiency: electronic medical records and computerized practitioner order entry.

Table 1 displays a list of all applications in the HIMSS surveys and our subscore classification scheme.

We used Medicare Cost Reports available from Centers for Medicare and Medicaid Services as of January 1, 2009, to calculate hospitals’ administrative costs for each year from 2003 to 2007 and to establish hospitals’ ownership (nonprofit, investor owned, or public), type (eg, acute care, psychiatric), location by state, urban/rural location, and teaching status. We calculated administration’s share of each hospital’s total costs as previously described.14,15 The 0.18% of hospitals whose cost reports showed implausible figures (<5% or >80%) for the proportion spent on administration were treated as missing values.

The 2008 Dartmouth Atlas16 reports 4 quality scores based on Medicare patients cared for from 2001 to 2005 with pneumonia, congestive heart failure, or acute myocardial infarction,17 as well as a composite quality score. It also includes data on each hospital’s average costs, both inpatient and outpatient, for Medicare patients during the last 2 years of life. The methods used to develop these estimates have been described.18

We linked our 3 data sources using Medicare Provider Numbers. Table 2 displays the number of hospitals included in the HIMSS and Dartmouth data for each year, as well as the

CLINICAL SIGNIFICANCE

- Hospital computerization has not, thus far, achieved savings on clinical or administrative costs.
- More computerized hospitals might have a slight quality advantage for some conditions.
- No reliable data support claims of cost savings or dramatic quality improvement from electronic medical records.

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<thead>
<tr>
<th>Table 1</th>
<th>Computer Applications Used to Construct Overall Computerization Score and Subscores, 2003-2007</th>
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<td>Clinical applications subscore (8 applications)</td>
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<tr>
<td>Clinical data repository</td>
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<tr>
<td>Computerized practitioner order entry^b</td>
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<tr>
<td>Data warehousing and mining, clinical^a</td>
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<td>Electronic medical record^b</td>
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<td>Laboratory information system</td>
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<td>Nursing documentation</td>
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<td>Order entry</td>
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<td>Physician documentation</td>
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<td>Administrative applications (patient-related) subscore (4 applications)</td>
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<td>Nurse acuity^a</td>
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<td>Nurse staffing scheduling</td>
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<td>Patient billing</td>
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<td>Patient scheduling</td>
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<td>Administrative applications (other) subscore (12 applications)</td>
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<td>Budgeting</td>
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<td>Case mix management</td>
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<td>Cost accounting</td>
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<td>Credit collections</td>
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<td>Eligibility</td>
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<tr>
<td>Data warehousing and mining, financial^a</td>
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<td>Electronic data interchange</td>
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<td>Executive information system</td>
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<td>General ledger</td>
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<td>Materials management</td>
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<td>Personnel management</td>
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<td>Staff scheduling</td>
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^aCategory not included in 2003 and 2004 HIMSS surveys.
^bApplications also were analyzed individually.
number that we were able to match to a Medicare Cost Report. The hospitals included in the computerization (HIMSS) and cost/quality databases (Dartmouth Atlas) were more likely than other hospitals to be urban, teaching, and nonprofit; virtually all were short-term general hospitals. Hospitals in the Dartmouth database were larger than average.

Finally, we compared costs and quality of hospitals at the cutting edge of computerization (as indicated by their inclusion on the “100 Most Wired List” compiled by Hospital and Health Networks magazine for 2005 and 200719,20) with those of other hospitals.

Statistical Analyses
We first examined bivariate (Pearson) correlations between each hospital’s overall computerization score (as well as each of the 3 computerization subscores and the adoption of electronic medical records and computerized physician order entry individually) and the proportion of spending devoted to administration (calculated from Medicare Cost Reports) for each year from 2003 to 2007. To assess lagged effects, we examined whether computerization in 2003 was correlated with administrative costs in 2007. Finally, we determined whether longitudinal changes in any measure of computerization between 2003 and 2007 correlated with changes in administrative costs. We also analyzed the correlation between each hospital’s measures of computerization in 2005 and its quality scores and Medicare costs.

We then used multiple linear regression to ascertain predictors of hospital administrative costs for each year between 2003 and 2007 and the change in administrative costs between 2003 and 2007, as well as quality scores and Medicare costs (2005 only). In these analyses, we controlled for hospital ownership and type, bed size, teaching status, urban/rural location, and location by state. The parameter estimates from these analyses estimate the change in cost, quality score, or administration’s share of hospital spending if a hospital moved from no implementation of the computer application(s) to complete implementation. Given the large number of comparisons, we consider findings significant only if the P value is less than .01.

RESULTS
Hospital computerization increased between 2003 and 2004 and from 2005 to 2007. Data discontinuity precluded analysis of changes between 2004 and 2005. By 2007, the average hospital in the HIMSS survey had implemented 64% of the 24 surveyed computer applications, although only 23% had implemented computerized physician order entry. Larger urban and teaching hospitals were more computerized, whereas public hospitals were less computerized. As expected, hospitals on the “Most Wired” lists reported higher than average computerization in the HIMSS survey (P < .0001 in both years).

Hospitals’ administrative costs increased slightly but steadily, from 24.4% in 2003 to 24.9% in 2007 (P < .0001). Higher administrative costs were associated with for-profit ownership, smaller size, non-teaching status, and urban location. Psychiatric hospitals had higher administrative costs than acute care hospitals. There was no association between administrative costs and any quality measure. Higher administrative costs weakly predicted higher total Medicare spending (r = 0.09, P < .0001), inpatient spending (r = 0.06, P = .0007), and outpatient spending (r = 0.07, P < .0001).

The average composite quality score for US hospitals was 86.1, whereas the average scores for acute myocardial infarction, congestive heart failure, and pneumonia were 92.3, 86.9, and 78.5, respectively. Larger hospitals and those with teaching programs scored higher on quality, and for-profit hospitals scored lower.
**Administrative Costs and Computerization**

Table 3 displays the bivariate and multivariate relationships between computerization and administrative costs for each year, as well as the longitudinal relationship between change in computerization and change in administrative costs.

In bivariate analyses, overall computerization score showed no correlation with administrative costs \((P > .02\) for comparisons in each of the 5 years). None of the 3 computerization subscores or 2 individual applications (electronic medical records or computerized physician order entry, data not shown) were consistently associated with administrative costs. However, in 2004 alone, one subscore, patient-related administrative tasks, was associated with lower administrative costs \((r = -0.06, P < .0001)\), as was the use of computerized physician order entry in 2004 \((r = -0.06, P = .001)\), 2005 \((r = -0.05, P = .002)\), and 2006 \((r = -0.05, P = .002)\); greater computerization of clinical functions in 2006 \((r = -0.05, P = .004)\); and electronic medical records in 2006 \((r = -0.048, P = .004)\). Between 2003 and 2007, a more rapid increase in computerization was associated with a faster increase in administrative costs \((r = 0.09, P = .0001)\).

In multivariate analysis, neither overall computerization nor any of the subscores were associated with administrative costs in any year. The use of electronic medical records was associated with higher administrative costs in a single year, 2007 (parameter estimate = .004, \(P = .007\)). In contrast with the bivariate findings, the use of computerized physician order entry was nonsignificantly associated with higher administrative costs in all years. As in the bivariate longitudinal analysis, between 2003 and 2007, a more rapid increase in computerization was associated with a faster increase in administrative costs. We found no evidence of lagged effects; computerization in 2003 did not predict administrative costs in 2007 \((P = .71)\). Administrative costs of hospitals on the “Most Wired” list did not differ from those of other hospitals in 2005 \((P = .96)\) or 2007 \((P = .78)\).

**Quality Measures and Computerization**

In bivariate analyses, higher overall computerization scores correlated with better quality scores for acute myocardial infarction \((r = 0.07, P = .003)\) but not for congestive heart failure or pneumonia, or for the composite quality score.

On multivariate analysis (Table 4), there was a trend toward computerization predicting higher quality. Hospitals with higher overall computing scores had slightly better composite quality (parameter estimate = 2.365, \(P = .013\), as did hospitals with higher subscores for clinical systems, and patient-related administrative systems. Both the use of electronic medical records and computerized order entry predicted higher composite quality scores. More computerized hospitals scored higher on care of acute myocardial infarction, but not on pneumonia or heart failure. Hospitals

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**Table 3** Relationship Between Each Hospital’s Level of Computerization and Administrative Costs as a Share of Total Costs, 2003-2007

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<td>Bivariate correlations with proportion spent on administration ((P) value)</td>
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<tr>
<td>Overall computerization score</td>
<td>-0.005 (.75)</td>
<td>-0.04 (.02)</td>
<td>-0.02 (.20)</td>
<td>-0.03 (.12)</td>
<td>-0.009 (.66)</td>
<td>0.09 (.&lt;.0001)</td>
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<td>Subscores:</td>
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<td>Clinical systems</td>
<td>-0.02 (.25)</td>
<td>-0.04 (.02)</td>
<td>-0.03 (.04)</td>
<td>-0.05 (.004)</td>
<td>-0.02 (.25)</td>
<td>0.06 (.014)</td>
</tr>
<tr>
<td>Administrative systems</td>
<td>-0.01 (.39)</td>
<td>-0.06 (&lt;.0001)</td>
<td>-0.007 (.69)</td>
<td>-0.01 (.49)</td>
<td>-0.009 (.66)</td>
<td>0.03 (.21)</td>
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<td>(patient related)</td>
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<tr>
<td>Administrative systems</td>
<td>0.01 (.47)</td>
<td>-0.02 (.35)</td>
<td>-0.005 (.77)</td>
<td>-0.008 (.96)</td>
<td>-0.02 (.39)</td>
<td>0.08 (.0005)</td>
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<td>(other)</td>
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<td>Multivariate parameter estimates (and (P) values) for relationship between computerization and proportion spent on administration\b</td>
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<tr>
<td>Overall computerization score</td>
<td>-0.003 (.71)</td>
<td>-0.009 (.15)</td>
<td>-0.003 (.67)</td>
<td>0.001 (.86)</td>
<td>0.01 (.24)</td>
<td>0.02 (.002)</td>
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<td>Subscores:</td>
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<tr>
<td>Clinical systems</td>
<td>-0.005 (.18)</td>
<td>-0.006 (.14)</td>
<td>-0.002 (.71)</td>
<td>-0.006 (.13)</td>
<td>0.006 (.26)</td>
<td>0.005 (.22)</td>
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<tr>
<td>Administrative systems</td>
<td>0.005 (.44)</td>
<td>-0.01 (.14)</td>
<td>0.001 (.81)</td>
<td>-0.0006 (.91)</td>
<td>-0.003 (.64)</td>
<td>0.005 (.34)</td>
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<tr>
<td>(patient related)</td>
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<tr>
<td>Administrative systems</td>
<td>0.001 (.81)</td>
<td>-0.003 (.52)</td>
<td>-0.002 (.71)</td>
<td>0.008 (.15)</td>
<td>0.009 (.21)</td>
<td>0.02 (.0008)</td>
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<td>(other)</td>
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\*Relationship between change in administration’s share of hospital’s total costs and change in its computerization score, 2003-2007.
\bControlling for teaching status, number of beds, urban/rural location, ownership (for-profit, private nonprofit, or public), state, and hospital type (eg, acute care, psychiatric).
on the “Most Wired” list showed a weak trend toward higher composite quality (parameter estimate = 1.032, \(P = .08\)).

**Overall Costs and Computerization**

In bivariate analysis, overall computerization score was associated with higher total Medicare spending \((r = 0.06, \ P < .001)\), as well as spending for imaging \((r = 0.09, \ P < .0001)\), outpatient care \((r = 0.13, \ P < .0001)\), and diagnostic testing \((r = 0.09, \ P < .0001)\).

In multivariate models (Table 4), overall computerization was not associated with overall Medicare spending (parameter estimate = $612, \(P = .69\)) or individual components of spending (data not shown). The computerization subscores were inconsistently associated with expenditures. Costs at hospitals on the “Most Wired” list did not differ from those at other hospitals (parameter estimate = $324, \(P = .77\)).

**DISCUSSION**

We found no evidence that computerization has lowered costs or streamlined administration. Although bivariate analyses found higher costs at more computerized hospitals, multivariate analyses found no association. For administrative costs, neither bivariate nor multivariate analyses showed a consistent relationship to computerization. Although computerized physician order entry was associated with lower administrative costs in some years on bivariate analysis, no such association remained after adjustment for confounders. Moreover, hospitals that increased their computerization more rapidly had larger increases in administrative costs. More encouragingly, greater use of information technology was associated with a consistent though small increase in quality scores.

We used a variety of analytic strategies to search for evidence that computerization might be cost-saving. In cross-sectional analyses, we examined whether more computerized hospitals had lower costs or more efficient administration in any of the 5 years. We also looked for lagged effects, that is, whether cost-savings might emerge after the implementation of computerized systems. We looked for subgroups of computer applications, as well as individual applications, that might result in savings. None of these hypotheses were borne out. Even the select group of hospitals at the cutting edge of computerization showed neither cost nor efficiency advantages. Our longitudinal analysis suggests that computerization may actually increase administrative costs, at least in the near term.

The modest quality advantages associated with computerization are difficult to interpret. The quality scores reflect processes of care rather than outcomes; more information technology may merely improve scores without actually improving care, for example, by facilitating documentation of allowable exceptions.

Recent reviews have concluded that custom-built systems at 3 academic centers and at Veterans Administration...
hospitals have improved quality and decreased use (mostly of diagnostic tests).\textsuperscript{10,11} In contrast, they found less evidence for positive effects beyond these 4 institutions and no reliable data to support claims for savings on costs or clinician time. Some decision support systems have improved practitioner performance, but their impact on patient outcomes remains uncertain.\textsuperscript{21}

A recent study of 41 Texas hospitals found that hospitals with computerized physician order entry had lower mortality for coronary artery surgery but not for other conditions.\textsuperscript{22} Facilities with automated decision support had lower costs. The impact of computerization on complication rates and length of stay was inconsistent. At Kaiser Permanente in Hawaii, implementation of an electronic medical record increased operational efficiency, defined as a decrease in outpatient visits and increase in phone and e-mail consultations.\textsuperscript{23}

In other settings, computerization has yielded mixed results.\textsuperscript{24} In a national study, electronic medical records were not associated with better quality ambulatory care.\textsuperscript{25} Prescribing errors were no lower at outpatient practices with computerized prescribing,\textsuperscript{26} and adverse events from medication errors persisted at a highly computerized hospital with computerized physician order entry.\textsuperscript{27} A leading computerized physician order entry system sometimes facilitated medication errors,\textsuperscript{28} and the introduction of such a system was linked to an increase in mortality at one children’s hospital\textsuperscript{29} but not at another.\textsuperscript{30}

Although optimal computerization probably improves quality, it remains unclear whether the systems currently deployed in most hospitals achieve such improvement. Even the business case for hospital computerization is uncertain. On the plus side, a 2001 study found that hospitals with integrated information systems were more profitable.\textsuperscript{31} Florida hospitals using more information technology had higher revenues and incomes, but higher expenses.\textsuperscript{32} A literature review found that the use of an electronic medical record often increases billings but reduces provider productivity by increasing time spent on documentation.\textsuperscript{33} Error reduction was inconsistent, and the author found no evidence for savings or decreased malpractice premiums.

The data we used for our analysis appear reasonably robust. Our total cost measure sums expenditures across sites, outpatient and inpatient, for patients who received the bulk of their care at each hospital. Thus, they should reflect any savings from improved coordination of care and the avoidance of duplicate tests, the type of waste that computerization might be expected to curtail.

Medicare Cost Reports provide reliable and detailed hospital financial data covering most non-federal US hospitals and are subject to extensive audit. Estimates of administrative expenses based on these cost reports jibe well with labor-force data\textsuperscript{34} and regulatory data from California.\textsuperscript{35}

The HIMSS survey provides the only available longitudinal data on computerization for a large sample of US hospitals. Its sponsoring organization is the largest health information technology professional group, reinforcing respondents’ motivation to provide accurate data. Moreover, HIMSS scores correlated highly with inclusion on the “Most Wired” list in both 2005 and 2007. A 2008 cross-sectional survey that used more stringent definitions of computerization adoption found lower levels of implementation.\textsuperscript{36} Even if the HIMSS survey provides an imperfect measure of computerization, the lack of cost and efficiency differences between hospitals at the extremes of computerization suggests that its salutary effects cannot be large.

Why has information technology failed to decrease administrative or total costs? Three interpretations of our findings seem plausible. First, perhaps computerization cannot decrease costs because savings are offset by the expense of purchasing and maintaining the computer system itself. Although information technology has improved efficiency in some industries (eg, telecommunications), it has actually increased costs in others, such as retail banking.\textsuperscript{37} Second, computerization may eventually yield cost and efficiency gains, but only at a more advanced stage than achieved by even the 100 “Most Wired” hospitals.

Finally, we believe that the computer’s potential to improve efficiency is unrealized because the commercial marketplace does not favor optimal products. Coding and other reimbursement-driven documentation might take precedence over efficiency and the encouragement of clinical parsimony. The largest computer success story has occurred at Veterans Administration hospitals where global budgets obviate the need for most billing and internal cost accounting, and minimize commercial pressures.

CONCLUSIONS
Whatever the explanation, as currently implemented, health information technology has a modest impact on process measures of quality, but no impact on administrative efficiency or overall costs. Predictions of cost-savings and efficiency improvements from the widespread adoption of computers are premature at best.

ACKNOWLEDGMENT
HIMSS Analytics provided data free of charge but played no role in the analysis or interpretation of the data.

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4. Toward a National Health Information Infrastructure. Report of the Work Group on Computerization of Patient Records to the Secretary of


By Danny McCormick, David H. Bor, Stephanie Woolhandler, and David U. Himmelstein

Giving Office-Based Physicians Electronic Access To Patients’ Prior Imaging And Lab Results Did Not Deter Ordering Of Tests

ABSTRACT Policy-based incentives for health care providers to adopt health information technology are predicated on the assumption that, among other things, electronic access to patient test results and medical records will reduce diagnostic testing and save money. To test the generalizability of findings that support this assumption, we analyzed the records of 28,741 patient visits to a nationally representative sample of 1,187 office-based physicians in 2008. Physicians’ access to computerized imaging results (sometimes, but not necessarily, through an electronic health record) was associated with a 40–70 percent greater likelihood of an imaging test being ordered. The electronic availability of lab test results was also associated with ordering of additional blood tests. The availability of an electronic health record in itself had no apparent impact on ordering; the electronic access to test results appears to have been the key. These findings raise the possibility that, as currently implemented, electronic access does not decrease test ordering in the office setting and may even increase it, possibly because of system features that are enticements to ordering. We conclude that use of these health information technologies, whatever their other benefits, remains unproven as an effective cost-control strategy with respect to reducing the ordering of unnecessary tests.

Health policy experts, consultants, policy makers, and the Obama administration have argued that widespread adoption of health information technology will result in substantial cost savings. In fact, support for passage of the Health Information Technology for Economic and Clinical Health (HITECT) provisions of the American Recovery and Reinvestment Act of 2009, which dramatically expanded federal expenditures for the adoption of health information technology, rested heavily on this argument. Reduced ordering of imaging and other diagnostic studies is often cited as a likely mechanism for cost savings related to health information technology. The use of imaging studies—particularly advanced imaging, or computerized tomography scans, positron emission tomography, and magnetic resonance imaging—has escalated dramatically. In 2002 it accounted for more than 14 percent of Medicare Part B expenditures. Health information technology might be expected to decrease the use of diagnostic imaging in several ways. Providing physicians with electronic access to prior imaging test results might reduce redundant test ordering, especially for expensive advanced imaging. Even in the absence of prior imaging, the improved availability of data from previous physical examinations and diagnoses might reassure clinicians that a cur-
rent abnormality is both long-standing and stable, and hence that it doesn’t require further investigation.

Finally, electronic point-of-order decision support that provides real-time feedback on imaging test appropriateness might prompt physicians to order fewer tests that are not clinically indicated for a particular patient.

However, it is also plausible that more convenient access to results could encourage physicians to increase their test ordering. Studies in various settings have found that diagnostic tests are frequently duplicated.10–13

Researchers—mostly at a few flagship hospitals with cutting-edge academic computing groups that employ customized health information technology—have demonstrated that such technology can reduce total ordering of radiologic and other diagnostic tests by presenting ordering physicians with computerized results of prior tests,14,15 costs of tests,16 and feedback about the clinical utility of the test for a particular patient.17,18 Yet no studies have examined whether these improvements are generalizable to current outpatient medical practice, where computer technology is commonly an “off-the-shelf” product rather than a customized one, or whether they apply specifically to the ordering of imaging tests.

We therefore analyzed data on a nationally representative sample of US office visits to determine whether the computerized availability of imaging results or image viewing, or the use of a full electronic health record, is associated with reductions in imaging test ordering. Computerized imaging results or viewing can be obtained either through limited computer systems designed specifically for that function or as part of a full electronic health record that contains comprehensive information on a patient’s medical history, including such things as progress notes and lists of medical problems and medications.

To assess whether the relationship of the computerized availability of imaging results to image test ordering was generalizable to other test ordering, we also examined whether computerized access to laboratory results reduced the ordering of blood tests.

**Study Data And Methods**

We analyzed data from the 2008 National Ambulatory Medical Care Survey, a survey of 28,741 outpatient visits to a nationally representative sample of the offices of 1,187 nonfederal physicians.19 The survey excludes hospital outpatient departments and offices of radiologists, anesthesiologists, and pathologists. The National Center for Health Statistics conducts the survey with assistance from the Census Bureau. The center provided weights to allow extrapolation to the universe of office visits nationally.

The survey collects information about the practice setting, including detailed information about computerization, as well as about the characteristics of the patients seen and the tests ordered at each surveyed visit. For the roughly one-third of visits that lacked information on patients’ race and ethnicity, the National Center for Health Statistics imputed these data.

To assess whether computerized access to imaging results reduced the ordering of imaging, we separately analyzed predictors of whether a patient received a computed tomography scan; magnetic resonance imaging; any advanced imaging procedure (computed tomography scan, magnetic resonance imaging, or positron emission tomography scan); or any image (an advanced image, X-ray, bone density measurement, ultrasound, or other image).

We examined two indicators of physicians’ access to imaging results. The first was whether the practice had what the survey called “a computerized system for viewing imaging results”—that is, a system that presents a text report of a physician’s interpretation of the imaging study, an actual visual electronic radiologic image, or both. The second was, for those practices with such a system, whether “electronic images [were] returned”—that is, whether in addition to or in place of a text report, the actual visual images were returned electronically.

In those few cases where physicians indicated that they had such a system but its capability was “turned off,” we considered that they did not have access to imaging results.

**Statistical Analysis** We first analyzed the bivariate frequency of image test ordering according to patient, health insurance, and practice characteristics, including computerization. We then constructed multivariate logistic regression models. The outcome variables were the ordering of each type of imaging test (computed tomography, magnetic resonance imaging, any advanced imaging, and any imaging), and the predictor variable was the availability of computerized test results reporting.

Our initial set of models controlled only for patient characteristics and insurance type, as follows: age (less than 18 years, 18–45 years, 46–64 years, or more than 64 years); sex; race (black or nonblack); ethnicity (Hispanic or non-Hispanic); whether or not the patient resided in a ZIP code with a higher than median level of poverty; and whether or not the patient had been seen previously by the physician. The type of insurance was coded as private insurance, Medicare

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care, Medicaid, none, or other.

We then constructed a second set of logistic regression models with the same outcome and predictor variables that included all of the patient and insurance characteristics above, as well as the following practice characteristics: urban location; physician’s employment status (practice owner or employee/contractor); whether the practice was owned by a hospital; whether the physician was a solo practitioner; whether the physician’s compensation was based, in part or whole, on “profiling” (that is, the use of epidemiologic methods to compare physician practice patterns across various quality-of-care and cost dimensions); whether the practice was predominantly prepaid (defined as a practice owned by or located within a health maintenance organization, or one receiving more than 50 percent of its revenue from capitation payments or from case rates); whether the practice had a computerized system for viewing actual images; and a few categorical variables for physician specialty and practice setting. The reference categories for the categorical variables were surgical specialty, private insurance, and private office, respectively.

To explore whether controlling for additional patient and physician characteristics would alter our findings, we carried out several sensitivity analyses. First, we substituted (alternately) a fourteen-level and a seven-level variable for physician specialty for the three-level specialty variable in the main models. Second, we added indicators of whether, at the time of the visit, the patient had cancer, cerebrovascular disease, congestive heart failure, ischemic heart disease, or diabetes.

Third, we explored whether the correlation between test ordering and electronic access to test results might reflect some physicians’ non-specific affinity for technology. In other words, were there “tech savvy” doctors who were more likely to both order more imaging and acquire and use a computer?

We therefore conducted supplemental analyses, in which we examined physicians’ reported use of an electronic health record and computerized physician order entry. We began by analyzing these variables as independent predictors of test ordering, substituting them for the computerized test retrieval variables in the final logistic regression models described above. We then analyzed the variables as possible confounders by adding them to the final models, along with indicators of electronic access to test results.

Last, we explored the possibility that financial self-interest might explain physicians’ ordering of imaging tests. Previous studies have suggested that physicians with a financial interest in imaging facilities, either in their own practice or an external facility, are more likely to order such tests, a practice known as “self-referral.” This association has been seen to persist after controlling for patient characteristics, illness severity, and physician specialty.

Unfortunately, the survey data used in the present investigation do not include direct information on physicians’ financial interests in imaging facilities. Thus, to explore this issue, we examined whether the association between electronic access to imaging results and test ordering persisted in multivariate models that added controls for a physician’s likelihood of self-referral. For these models, we classified physicians as having a higher versus a lower likelihood of self-referral. We assumed that physicians practicing in a community health center or health maintenance organization were in the lower group because individual physicians in these settings would be very unlikely to have a financial stake in radiologic tests being performed. We added to that group those physicians in other practice settings who derived more than 50 percent of their revenue from capitation or case rates because physicians’ financial incentives in these arrangements would, if anything, favor limiting the ordering of imaging tests.

Finally, in an additional sensitivity analysis, we ran again the full models for each outcome after excluding three physician specialties—orthopedics, neurology, and cardiology—that are associated with a large proportion of imaging self-referrals, according to a recent Medicare Payment Advisory Commission report.

In supplemental analyses, we also examined whether computerized access to laboratory results reduced the ordering of blood tests, using the same modeling strategy as described for our principal analysis of image ordering. For blood tests, we examined another indicator in the survey: “Does your practice have a computerized system for viewing lab results?” The model examining predictors of blood test ordering also included a variable indicating the presence of an on-site laboratory.

All analyses were done using the Surveyfreq and Surveylogistic procedures in the statistical analysis software SAS, version 9.1. These procedures adjust confidence intervals for the complex sample design.

After review, the Institutional Review Board of Cambridge Health Alliance waived the requirement for approval for this study.

**Limitations** We did not have direct information on the extent to which physicians in this study self-referred. Therefore, we cannot exclude the possibility that confounding by self-referral
fully explains our findings. However, our sensitivity analyses cast doubt on that explanation. When we excluded physician specialties most strongly associated with imaging self-referral (and when we added to our main models variables indicative of the likelihood of self-referral), the associations between imaging ordering and computerized access to image results or image viewing remained substantially the same.

In addition, we cannot dismiss the possibility that physicians predisposed to order tests for reasons other than self-referral are also more likely to purchase computerized image reporting and viewing systems. Our data source did not indicate whether a physician’s computer system included online decision support or other features that might affect image ordering. Nor did it provide information about some physician characteristics, such as age, that might affect both test ordering and computerization. In addition to the lack of direct data on physician self-referral, these are important limitations of our analysis.

Yet, as detailed below, other indicators of office computerization—computerized physician order entry and the use of an electronic health record system—showed no association with test ordering. Hence, it appears that our results cannot be explained simply by the presence of doctors who use both more computers and more testing than their less “tech savvy” colleagues.

One additional important caveat applies to our findings. We could not assess whether the increased imaging associated with electronic access to results helped or harmed patients, an issue that warrants further study.

Study Results

Imaging Analyses Using bivariate analyses, we found that access to electronic imaging results was strongly associated with greater imaging ordering. For example, physicians without such access ordered imaging in 12.9 percent of visits, whereas physicians with access ordered imaging in 18.0 percent of visits (Exhibit 1; for additional results, see Appendix Exhibit 1).24

Image ordering rates were much lower for children than for adults (Exhibit 1) and for return visits to the same practice, as compared to initial visits (Appendix Exhibit 1).24 Women received more imaging studies overall than men—perhaps reflecting their use of mammograms and ultrasound studies—but not more advanced imaging (Exhibit 1).

In multivariate models adjusted only for patient characteristics (data not shown), the positive association between the availability of electronic results and imaging test ordering persisted, with odds ratios of 1.44 (95% confidence interval: 1.23, 1.69) for any image, 2.03 (95% confidence interval: 1.48, 2.76) for advanced images, 2.02 (95% confidence interval: 1.48, 2.76) for magnetic resonance imaging, and 1.98 (95% confidence interval: 1.40, 2.82) for computed tomography scans.

Similarly, physician access to the actual image remained strongly associated with image ordering, with odds ratios of 1.50 (95% confidence interval: 1.26, 1.79) for any image, 2.15 (95% confidence interval: 1.53, 3.02) for advanced images, 1.87 (95% confidence interval: 1.37, 2.57) for magnetic resonance imaging, and 2.36 (95% confidence interval: 1.54, 3.64) for computed tomography scans.

For all of our analyses, odds ratios can be interpreted as a ratio of the odds of an event occurring in an exposed group to the odds of the same event occurring in a control group. For example, an odds ratio of 0.87 means that in one group the outcome is about 13 percent (1 – 0.87) less likely than in the comparison group. An odds ratio of 1.40 means that in one group the outcome is about 40 percent more likely than in the comparison group.

In this case, an odds ratio of greater than 1 indicates a higher probability, and an odds ratio of less than 1 indicates a lower probability, of image ordering occurring at an office visit, given the predictor controlled for. Thus, if the odds ratio for image ordering given the availability of electronic results is 1.4, this represents a 40 percent increase in the likelihood of image ordering when such results are available.

Further adjustment for practice characteristics modestly reduced the positive associations between computerized access to imaging results and the likelihood of ordering an imaging test. Exhibit 2 displays the results of the full multivariate models for predictors of ordering any imaging test (see Appendix Exhibit 224 for 95% confidence intervals for all variables). Exhibit 3 displays the results of the full multivariate models for predictors of ordering of advanced imaging (see Appendix Exhibit 3 for 95% confidence intervals for all variables).24 The full multivariate models for magnetic resonance imaging and computed tomography scans separately yielded similar results. However, the positive association between electronic image viewing and ordering magnetic resonance imaging was of borderline significance (data not shown).

Sensitivity Analyses In sensitivity analyses that included patient and practice characteristics, but not indicators of electronic access to test results, neither having an electronic health record system nor using computerized physician order entry was associated with the likelihood of image ordering. When we added computerized...
physician order entry or an electronic health record system to the models that included indicators of electronic access to test results, those additions had virtually no impact on the odds ratios of these indicators.

For instance, the odds ratios for association between electronic image viewing and ordering an advanced image increased only slightly, from 1.78 in the original model to 1.93 in a model that included indicators for the presence of both a full electronic health record and computerized physician order entry. Similarly, including these two variables increased the odds ratio for the association between ordering any advanced image and the availability of electronic access to imaging results from 1.71 to 1.86. In all models, the odds ratios for the presence of an electronic health record and for computerized order entry were not significant (data not shown).

As noted above, excluding physician special-

### Exhibit 1

#### Frequency Of Physicians’ Image Test Ordering During Office Visits, By Patient And Practice Characteristics (Weighted)

<table>
<thead>
<tr>
<th>Patient/practice characteristic</th>
<th>Any image</th>
<th>Any advanced image</th>
<th>Magnetic resonance imaging</th>
<th>Computed tomography scan</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SEX</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female (n = 16,751)</td>
<td>16.9***</td>
<td>3.3****</td>
<td>1.6</td>
<td>1.6</td>
</tr>
<tr>
<td>Male (n = 11,990)</td>
<td>13.0</td>
<td>3.4****</td>
<td>1.7</td>
<td>1.6</td>
</tr>
<tr>
<td><strong>AGE (YEARS)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 18 (n = 5,180)</td>
<td>5.8***</td>
<td>0.6****</td>
<td>0.4****</td>
<td>0.2****</td>
</tr>
<tr>
<td>18–45 (n = 7,945)</td>
<td>14.9</td>
<td>3.0****</td>
<td>1.7</td>
<td>1.2</td>
</tr>
<tr>
<td>46–64 (n = 8,405)</td>
<td>20.1</td>
<td>4.8****</td>
<td>2.4</td>
<td>2.3</td>
</tr>
<tr>
<td>&gt; 64 (n = 7,211)</td>
<td>17.8</td>
<td>3.9****</td>
<td>1.5</td>
<td>2.2</td>
</tr>
<tr>
<td><strong>RACE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black (n = 3,384)</td>
<td>14.1</td>
<td>3.7****</td>
<td>1.9</td>
<td>1.7</td>
</tr>
<tr>
<td>Nonblack (n = 25,357)</td>
<td>15.5</td>
<td>3.3****</td>
<td>1.6</td>
<td>1.6</td>
</tr>
<tr>
<td><strong>TYPE OF INSURANCE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private (n = 14,507)</td>
<td>15.5***</td>
<td>3.2****</td>
<td>1.7****</td>
<td>1.4***</td>
</tr>
<tr>
<td>Medicare (n = 6,689)</td>
<td>17.4</td>
<td>4.1****</td>
<td>1.5</td>
<td>2.3</td>
</tr>
<tr>
<td>Medicaid (n = 3,617)</td>
<td>9.5</td>
<td>1.9</td>
<td>1.0</td>
<td>0.9</td>
</tr>
<tr>
<td>Other (n = 1,057)</td>
<td>23.7</td>
<td>5.9****</td>
<td>3.9</td>
<td>2.0</td>
</tr>
<tr>
<td>None (n = 1,697)</td>
<td>10.1</td>
<td>2.5****</td>
<td>1.2</td>
<td>1.3</td>
</tr>
<tr>
<td><strong>PHYSICIAN SPECIALTY</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary care (n = 14,701)</td>
<td>13.4***</td>
<td>2.2****</td>
<td>1.1****</td>
<td>1.1***</td>
</tr>
<tr>
<td>Surgical specialty (n = 6,996)</td>
<td>20.7</td>
<td>5.1****</td>
<td>2.6</td>
<td>2.4</td>
</tr>
<tr>
<td>Medical specialty (n = 7,044)</td>
<td>15.6</td>
<td>5.0****</td>
<td>2.3</td>
<td>2.4</td>
</tr>
<tr>
<td><strong>PRACTICE SETTING</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private office (n = 23,669)</td>
<td>15.6</td>
<td>3.3****</td>
<td>1.6</td>
<td>1.6</td>
</tr>
<tr>
<td>Community health center (n = 3,355)</td>
<td>10.8</td>
<td>2.6</td>
<td>1.3</td>
<td>1.3</td>
</tr>
<tr>
<td>Health maintenance organization (n = 645)</td>
<td>12.6</td>
<td>4.5</td>
<td>2.7</td>
<td>1.8</td>
</tr>
<tr>
<td>Free-standing clinic (n = 842)</td>
<td>10.3</td>
<td>2.0****</td>
<td>1.6</td>
<td>0.4</td>
</tr>
<tr>
<td>Other office (n = 240)</td>
<td>21.5</td>
<td>7.4****</td>
<td>5.9</td>
<td>1.5</td>
</tr>
<tr>
<td><strong>PHYSICIAN OWNS PRACTICE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes (n = 17,921)</td>
<td>15.0</td>
<td>3.2****</td>
<td>1.6</td>
<td>1.5</td>
</tr>
<tr>
<td>No (n = 10,697)</td>
<td>16.1</td>
<td>3.7****</td>
<td>1.8</td>
<td>1.7</td>
</tr>
<tr>
<td><strong>PHYSICIAN HAS COMPUTERIZED SYSTEM FOR:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accessing imaging results</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes (n = 13,401)</td>
<td>18.0****</td>
<td>4.5****</td>
<td>2.2****</td>
<td>2.2****</td>
</tr>
<tr>
<td>No (n = 14,848)</td>
<td>12.9</td>
<td>2.5****</td>
<td>1.1</td>
<td>1.1</td>
</tr>
<tr>
<td>Viewing actual images</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes (n = 6,458)</td>
<td>18.9****</td>
<td>5.1****</td>
<td>2.3****</td>
<td>2.6****</td>
</tr>
<tr>
<td>No (n = 18,543)</td>
<td>13.4</td>
<td>2.4****</td>
<td>1.2</td>
<td>1.1</td>
</tr>
</tbody>
</table>

**Source:** Authors’ analysis of data from the 2008 National Ambulatory Medical Care Survey. **Notes:** Of the 28,741 physician visits in the study, 4,335 resulted in an order for any imaging; 1,117 in an order for any advanced imaging; 612 in an order for magnetic resonance imaging; and 496 in an order for a computed tomography scan. Some office visits had missing information on variables in this table. Thus, for some variables, the sum does not equal the total number of visits analyzed in the study. ***p < 0.01 ****p < 0.001
ties most strongly associated with imaging self-referral did not have a major effect on the associations between image ordering and computerized access to either image results or image viewing.

**Supplemental Analyses** In bivariate analyses, computerized access to laboratory test results was associated with a greater likelihood of ordering a blood test (data not shown), a finding that persisted in multivariate analyses adjusted for patient characteristics (odds ratio 1.54; 95% confidence interval: 1.24, 1.99). In the full model including practice characteristics, however, this association was of borderline significance (Appendix Exhibit 4).24

**Discussion And Conclusion**
We found no evidence that office-based physicians with electronic access to imaging or blood tests result order fewer imaging tests or blood tests, respectively. Indeed, at least for imaging, the reverse may be true: Facilitating physicians’ access to test results through computerization may increase diagnostic image ordering.

One possible explanation for our findings is that ready access to imaging results, or to the images themselves, reduces the time and effort required to review study results. The effect may be to provide subtle encouragement to physicians to order more imaging studies. In borderline situations, substituting a few keystrokes for the sometimes time-consuming task of tracking down results from an imaging facility may tip the balance in favor of ordering a test. This “convenience” effect of computerized access might cancel out the potential decreases in ordering due to reductions in duplicate or unnecessary testing.

There are, however, other possible explanations for the associations we observed, and it may be that more than one explanation is correct. Perhaps physicians who order more imaging studies, for whatever reason, are more likely to acquire health information technology that facilitates the retrieval of imaging results or images.

For example, as mentioned above, physicians who have a financial stake in imaging are more likely to order imaging tests. If these physicians are also more likely to purchase health information technology systems with image results capability, then self-referral—rather than electronic access by itself—might explain our results.

**Other Studies**
Our findings are not consistent with the widespread expectation that computerization will reduce excessive image ordering and perhaps other types of duplicative testing,2,4,6,13,25 an expectation shared by President Obama3 and the previous national coordinator for health information technology.26

This assumption was incorporated in two widely cited estimates of the likely savings from computerization. One projected annual savings of up to $77.8 billion,6 including $8.3 billion on imaging and $8.1 billion on lab testing. The other foresaw more than $81 billion in savings,2 including $1.3–5.3 billion annually on outpatient radiology and lab testing. In contrast, systematic reviews have found evidence for cost and quality benefits of health information technology at only a few institutions, with few data to support claims of more widespread benefits.27,28

Two randomized trials and one using historical controls at academic hospitals have shown that electronic health records that present recent

---

**Exhibit 2**

<table>
<thead>
<tr>
<th>Patient/practice characteristic</th>
<th>Odds ratios, results model</th>
<th>Odds ratios, images model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>1.44****</td>
<td>1.42****</td>
</tr>
<tr>
<td>Age (years)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 18 (reference)</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>18–45</td>
<td>2.69****</td>
<td>2.89****</td>
</tr>
<tr>
<td>46–64</td>
<td>3.82****</td>
<td>4.20****</td>
</tr>
<tr>
<td>&gt; 64</td>
<td>3.13****</td>
<td>3.24****</td>
</tr>
<tr>
<td>Black race</td>
<td>0.87</td>
<td>0.86</td>
</tr>
<tr>
<td>Hispanic ethnicity</td>
<td>0.89</td>
<td>0.88</td>
</tr>
<tr>
<td>Lives in ZIP code &gt; median poverty</td>
<td>0.94</td>
<td>0.93</td>
</tr>
<tr>
<td>Lives in urban location</td>
<td>1.07</td>
<td>1.07</td>
</tr>
<tr>
<td>Seen previously by physician</td>
<td>0.93*</td>
<td>0.95**</td>
</tr>
<tr>
<td>Type of insurance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private (reference)</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Medicare</td>
<td>0.99</td>
<td>0.98</td>
</tr>
<tr>
<td>Medicaid</td>
<td>0.86</td>
<td>0.87</td>
</tr>
<tr>
<td>Other</td>
<td>1.56****</td>
<td>1.71****</td>
</tr>
<tr>
<td>None</td>
<td>0.69**</td>
<td>0.62**</td>
</tr>
<tr>
<td>Physician specialty</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surgical specialty (reference)</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Primary care</td>
<td>0.77**</td>
<td>0.80</td>
</tr>
<tr>
<td>Medical specialty</td>
<td>0.73</td>
<td>0.70</td>
</tr>
<tr>
<td>Practice setting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private office (reference)</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Community health center</td>
<td>0.64**</td>
<td>0.67**</td>
</tr>
<tr>
<td>Health maintenance organization</td>
<td>0.38****</td>
<td>0.39**</td>
</tr>
<tr>
<td>Free-standing clinic</td>
<td>0.54</td>
<td>0.80</td>
</tr>
<tr>
<td>Other office</td>
<td>1.36</td>
<td>0.82</td>
</tr>
<tr>
<td>Solo practitioner</td>
<td>0.63****</td>
<td>0.62****</td>
</tr>
<tr>
<td>Physician owns practice</td>
<td>0.86</td>
<td>0.85</td>
</tr>
<tr>
<td>Practice mostly prepaid</td>
<td>0.99</td>
<td>0.98</td>
</tr>
<tr>
<td>Hospital-owned practice</td>
<td>0.93</td>
<td>1.01</td>
</tr>
<tr>
<td>Physician compensation based on cost profiling</td>
<td>1.03</td>
<td>1.09</td>
</tr>
<tr>
<td>Computerized system for accessing imaging results</td>
<td>1.40****</td>
<td>—d</td>
</tr>
<tr>
<td>Computerized system for viewing actual images</td>
<td>—d</td>
<td>1.45****</td>
</tr>
</tbody>
</table>

**Source**
Authors’ analysis of data from the 2008 National Ambulatory Medical Care Survey. *Multivariate logistic model for availability of imaging results. **Multivariate logistic model for availability of actual images. ***Office setting or practice ownership designated as health maintenance organization, or > 50 percent of patient care revenues from capitation or case rates. **Not applicable. ****p < 0.05 ***p < 0.01 ****p < 0.001
### Exhibit 3

**Adjusted Odds Of Ordering Any Advanced Imaging Test, By Patient And Practice Characteristics**

<table>
<thead>
<tr>
<th>Patient/practice characteristic</th>
<th>Odds ratio, results model</th>
<th>Odds ratio, images model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>0.97</td>
<td>0.95</td>
</tr>
<tr>
<td>Age (years)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 18 (reference)</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>18-45</td>
<td>4.10***</td>
<td>3.83***</td>
</tr>
<tr>
<td>46-64</td>
<td>6.34***</td>
<td>6.44***</td>
</tr>
<tr>
<td>&gt; 64</td>
<td>5.28***</td>
<td>5.21***</td>
</tr>
<tr>
<td>Black race</td>
<td>1.11</td>
<td>1.04</td>
</tr>
<tr>
<td>Hispanic ethnicity</td>
<td>0.81</td>
<td>0.82</td>
</tr>
<tr>
<td>Lives in ZIP code &gt; median poverty</td>
<td>0.97</td>
<td>1.04</td>
</tr>
<tr>
<td>Lives in urban location</td>
<td>1.05</td>
<td>1.02</td>
</tr>
<tr>
<td>Seen previously by physician</td>
<td>0.55***</td>
<td>0.56***</td>
</tr>
<tr>
<td>Type of insurance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private (reference)</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Medicare</td>
<td>1.07</td>
<td>1.03</td>
</tr>
<tr>
<td>Medicaid</td>
<td>1.15</td>
<td>1.13</td>
</tr>
<tr>
<td>Other</td>
<td>1.66**</td>
<td>2.03**</td>
</tr>
<tr>
<td>None</td>
<td>1.00</td>
<td>1.02</td>
</tr>
<tr>
<td>Physician specialty</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surgical specialty (reference)</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Primary care</td>
<td>0.63***</td>
<td>0.61***</td>
</tr>
<tr>
<td>Medical specialty</td>
<td>1.01</td>
<td>0.97</td>
</tr>
<tr>
<td>Practice setting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private office (reference)</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Community health center</td>
<td>1.27</td>
<td>1.34</td>
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<td>Health maintenance organization</td>
<td>1.56</td>
<td>1.23</td>
</tr>
<tr>
<td>Free-standing clinic</td>
<td>0.73</td>
<td>0.87</td>
</tr>
<tr>
<td>Other office</td>
<td>1.81</td>
<td>0.41</td>
</tr>
<tr>
<td>Solo practitioner</td>
<td>0.60***</td>
<td>0.61***</td>
</tr>
<tr>
<td>Physician owns practice</td>
<td>1.44**</td>
<td>1.46**</td>
</tr>
<tr>
<td>Practice mostly prepaid</td>
<td>0.86</td>
<td>1.00</td>
</tr>
<tr>
<td>Hospital-owned practice</td>
<td>2.49**</td>
<td>2.75***</td>
</tr>
<tr>
<td>Physician compensation based on cost profiling</td>
<td>1.24</td>
<td>1.30</td>
</tr>
<tr>
<td>Computerized system for accessing imaging results</td>
<td>1.71***</td>
<td>1.78***</td>
</tr>
<tr>
<td>Computerized system for viewing actual images</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

**Source** Authors’ analysis of data from the 2008 National Ambulatory Medical Care Survey.

*Multivariate logistic model for availability of imaging results. †Multivariate logistic model for availability of actual images. ‡Office setting or practice ownership designated as health maintenance organization, or > 50 percent of patient care revenues from capitation or case rates. ‡‡Not applicable. ‡‡‡p < 0.05 ‡‡‡‡p < 0.01 ‡‡‡‡‡p < 0.001

Limited data are available on computerization’s impact on imaging costs in ambulatory settings. At the Regenstrief Institute, in Indiana, computer programs that presented the ordering physician with previous results,28 test cost data,29 or the probability of a normal result30 reduced test ordering. An earlier study at the same institution found that providing emergency department physicians with computer-generated paper summaries of patients’ medical records resulted in decreased image ordering.14

A more recent study of a single integrated health care system (Virginia Mason Medical Center) demonstrated a decline in image ordering following the implementation—and mandatory use—of a clinical decision support system for advanced imaging.31 Some studies have noted increased efficiency in radiology departments through computerization,32 but they have not documented overall testing costs.

Perhaps office computerization has not yet reduced imaging use because current systems are cumbersome, insufficiently interoperable,33 or lack effective decision support software. If so, savings on imaging may emerge in the future. However, our finding that there were particularly high rates of testing in hospital-owned practices, where current levels of interoperability and decision support are probably highest, argues against this view.

**Policy Implications** Our findings may have several policy implications. The results suggest that the federal government’s ongoing, multibillion-dollar effort to promote the adoption of health information technology may not yield anticipated cost savings from reductions in duplicative diagnostic testing.5,7 Indeed, it is possible that computerization will drive costs in this area up, not down.

Insurers and health care providers should also be wary of claims that computerization alone will lead to a more parsimonious practice style. Our results emphasize the salience of other approaches to reducing imaging costs, such as curtailing self-referral.

The contrast between our negative findings and the positive experience at a few flagship institutions also raises important policy questions. The organizational model behind these successes—highly customized systems developed by on-site academic experts who were closely integrated with the clinical staff—differs markedly from the model employed elsewhere. Off-the-shelf commercial systems, often chosen because of billing concerns and more closely allied with the needs of administrators than those of clinicians, are the norm.

This dominant model may not produce optimal results. Certainly, computer system vendors should prioritize refinements in their systems to discourage redundant and clinically inappropriate imaging, improvements that have the potential to reduce needless imaging.

**Conclusion** Whatever the explanation for our findings, they emphasize the importance of es-
establishing the benefits of computerization rather than estimating them in the absence of data, or generalizing from small studies at a few atypical institutions. History urges caution in assuming that advances in medical technology will result in cost savings. In fact, the opposite is more often the case.

NOTES


24 To access the Appendix, click on the Appendix link in the box to the right of the article online.


ABOUT THE AUTHORS: DANNY MCCORMICK, DAVID H. BOR, STEPHANIE WOOLHANDLER & DAVID U. HIMMELSTEIN

Danny McCormick is an assistant professor of medicine at Harvard Medical School. McCormick served as a staff member on the Senate Committee on Health, Education, Labor, and Pensions under Sen. Edward M. Kennedy. He holds a master’s degree in public health with a concentration in clinical effectiveness from the Harvard School of Public Health and earned his medical degree from Tufts Medical School.

David H. Bor is the chief of medicine at Cambridge Health Alliance. David Bor, the chief of medicine at the Cambridge Health Alliance, joined the staff at Cambridge Hospital as a primary care physician and infectious disease specialist in 1981. He is also the Charles S. Davidson Associate Professor of Medicine at Harvard Medical School, and he serves as chair of the Cambridge Health Alliance’s Academic Council, which oversees all of the alliance’s scholarly research and training activities. Bor received his medical degree from Harvard Medical School.

Stephanie Woolhandler is a professor at the CUNY School of Public Health at Hunter College. A full-time faculty member at Harvard Medical School and the Cambridge Health Alliance from 1986 until 2010, she continues her affiliation with Harvard Medical School in the role of visiting professor. She holds a medical degree from the Louisiana State University Medical School, and she earned her master’s degree in public health from the University of California, Berkeley.

David U. Himmelstein is a professor at the CUNY School of Public Health at Hunter College. David Himmelstein has served as a professor at the CUNY School of Public Health at Hunter College since 2010, when he also assumed the role of visiting professor at Harvard Medical School. Prior to those appointments, he was on the Harvard Medical School faculty and practiced primary care internal medicine with the Cambridge Health Alliance for twenty-six years. Himmelstein received his medical degree from the Columbia University College of Physicians and Surgeons.

In this issue of *Health Affairs*, Danny McCormick and coauthors focus on the widely held assumption that use of health information technology will result in less diagnostic testing and reduced health care costs. In fact, in their analysis of patient visits to a nationally representative sample of office-based physicians in 2008, the authors found that physicians without computerized access to imaging results ordered imaging tests in 12.9 percent of visits, whereas physicians with such access ordered imaging in 18.0 percent of visits. Similar results played out with respect to blood test reports and repeat blood testing. The authors conclude that health information technologies, whatever their other benefits, remain unproven as an effective cost-control strategy in themselves with respect to reducing the ordering of unnecessary tests.

McCormick, who joined the faculty of Harvard Medical School in 1999, has been an assistant professor of medicine there since 2006. He also serves as director of the Division of Social and Community Medicine in the Department of Medicine at the Cambridge Health Alliance, and he is codirector of the Harvard Medical School Fellowship in General Medicine and Primary Care. A primary care physician,
Myth 6: Pay-for-performance (P4P) will improve health care quality.

Fact: P4P schemes rely on flawed assumptions about medicine, measurement, and motivation. Studies do not demonstrate the clinical effectiveness of P4P.


Why pay for performance may be incompatible with quality improvement
Motivation may decrease and gaming of the system is rife

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In a linked article (doi:10.1136/bmj.e5047), Glasziou and colleagues highlight the tenuous nature of the evidence that financial reward systems work in healthcare settings. They propose that before pay for performance schemes are implemented the potential benefits and harms should be assessed. Such schemes, which aim to improve the quality and efficiency of healthcare by the use of financial incentives to encourage desirable behaviours, have been adopted as a key strategy by the NHS in the United Kingdom, Medicare in the United States, and many private insurers. These schemes are based on a basic tenet of economics and psychology: that people respond to rewards.

Beyond the simple criticism that pay for performance can’t operate on an extended timeframe and that years may elapse between treatment and outcome, the concept of pay for performance in healthcare rests on flawed assumptions about medicine, measurement, and motivation. Performance based pay may increase output for straightforward manual tasks. However, a growing body of evidence from behavioral economics and social psychology indicates that rewards can undermine motivation and worsen performance on complex cognitive tasks, especially when motivation is high to begin with.

One questionable assumption underlying pay for performance is that measurements of doctors’ performance reflect their overall performance and not—for example—their patients’ characteristics or their ability to “game” the system. Health outcomes such as death or disability are the most easily measured and unambiguous indicators of overall performance, but they require risk adjustment. Hospital mortality provides the best case scenario for risk adjustment—outcomes are frequent, unambiguous, and likely to reflect performance; time horizons are short; and experts have spent years analysing the rich trove of hospital data. Yet, four widely used algorithms yield divergent rankings of inpatient mortality.

Risk adjustment is devilishly difficult, partly because key inputs—clinical diagnoses—aren’t solely patient characteristics but also reflect the aggressiveness of coding and diagnostic investigations. Seeking out and documenting unimportant comorbidities and diagnoses (such as occult prostate cancer in older people) exaggerate the severity of illness and artefactually raise risk adjusted quality scores. Hence, excessive testing inflates quality scores without improving quality.

Similarly, intensive coding—that is, embellishing diagnoses to maximise payment under per case or risk adjusted capitation schemes—also makes patients seem sicker on paper, and hence boosts risk adjusted quality scores. Under US Medicare’s DRG (diagnosis related groups) hospital payment system, recoding a diagnosis as “aspiration pneumonia with acute on chronic systolic heart failure” rather than simply “pneumonia with chronic heart failure” triples the payment and increases the risk score. Such “upcoding” is endemic among private health maintenance organisations that contract with Medicare for risk adjusted capitation payments, as well as among hospitals. One Maryland rehabilitation hospital reportedly urged doctors to document “protein malnutrition” in patients’ charts, and this enabled the hospital to bill for 287 cases of “kwashiorkor” in 2007 (up from 0 in 2004). Yet pay for performance programmes assume that quality indicators accurately reflect global quality and won’t be distorted by payment incentives.

Process based indicators, although easier to calculate than risk adjusted outcomes, are poor proxies for quality of care. Even seemingly clear cut measures have hidden complexity. As examples, total hospital readmission rates correlate poorly with avoidable readmission rates, and starting treatment for patients with pneumonia within four hours of arrival correlates with quality, yet Medicare’s incentives for hospitals to do so resulted in the administration of antibiotics to almost any patient in the emergency department with a cough.

Patients’ social characteristics also confound process based measures; even excellent doctors who care for disadvantaged or difficult patients may look bad on current pay for performance metrics. Among respected doctors at a flagship Harvard teaching hospital, those who cared for more non-English speaking, poor,
uninsured patients from more minority backgrounds, as well as for patients with infrequent visits, scored low on pay for performance metrics.11

Using clinical audit for financial reward and punishment, rather than in a collegial and reflective effort to improve care, amplifies the challenges of performance measurement. Incentives may mutate honesty into legal trickery; gaming can so thoroughly distort reality that rewards become uncoupled from performance.

A second questionable assumption is that traditional payment or funding systems are too simple. Pay for performance replaces simpler more general payment contracts with ones that specify the “deliverables” in greater detail. For instance, contracts for accountable care organisations mandated under the 2010 US health reform incentivise 33 quality standards, whereas the UK’s primary care pay for performance programme initially tabulated 146 parameters,12 with more to come. However, more may not be better: highly detailed prescriptive contracts may be perceived as controlling and may undermine the intrinsic motivation crucial to maintaining quality when nobody is looking.

Offering financial incentives to doctors, rather than enhancing their intrinsic motivation, may reduce their desire to perform an activity for its inherent rewards (such as pride in excellent work, empathy with patients). Worse still, if poor performance is the result of financial distress that is beyond providers’ control, penalising low scorers can make matters worse and exacerbate disparities, effectively punishing patients who cannot go elsewhere. Hospitals and doctors’ practices that deliver irremediably deficient care should be closed. It makes little sense to put already quality challenged providers on a starvation diet.

Future studies may yet establish the clinical effectiveness of pay for performance, but given its questionable assumptions this may never be the case. Despite a dearth of robust evidence that the system is clinically effective in healthcare, payers charge ahead with implementing everywhere an intervention that has not been proved to work anywhere. We are worried that pay for performance may not work simply because it changes the mindset needed for good doctoring. However, if such schemes must be envisaged, is essential that their likely benefit is rigorously considered before their implementation. Glasziou and colleagues’ checklist provides a salutary guide to such consideration.

Competing interests: All authors have completed the ICMJE uniform disclosure form at www.icmje.org/col_disclosure.pdf (available on request from the corresponding author) and declare: no support from any organisation for the submitted work; no financial relationships with any organisations that might have an interest in the submitted work in the previous three years; no other relationships or activities that could appear to have influenced the submitted work.

Provenance and peer review: Not commissioned; externally peer reviewed


Cite this as: BMJ 2012;345:e5015
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The Long-Term Effect of Premier Pay for Performance on Patient Outcomes

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ABSTRACT

BACKGROUND
Pay for performance has become a central strategy in the drive to improve health care. We assessed the long-term effect of the Medicare Premier Hospital Quality Incentive Demonstration (HQID) on patient outcomes.

METHODS
We used Medicare data to compare outcomes between the 252 hospitals participating in the Premier HQID and 3363 control hospitals participating in public reporting alone. We examined 30-day mortality among more than 6 million patients who had acute myocardial infarction, congestive heart failure, or pneumonia or who underwent coronary-artery bypass grafting (CABG) between 2003 and 2009.

RESULTS
At baseline, the composite 30-day mortality was similar for Premier and non-Premier hospitals (12.33% and 12.40%, respectively; difference, −0.07 percentage points; 95% confidence interval [CI], −0.40 to 0.26). The rates of decline in mortality per quarter at the two types of hospitals were also similar (0.04% and 0.04%, respectively; difference, −0.01 percentage points; 95% CI, −0.02 to 0.01), and mortality remained similar after 6 years under the pay-for-performance system (11.82% for Premier hospitals and 11.74% for non-Premier hospitals; difference, 0.08 percentage points; 95% CI, −0.30 to 0.46). We found that the effects of pay for performance on mortality did not differ significantly among conditions for which outcomes were explicitly linked to incentives (acute myocardial infarction and CABG) and among conditions not linked to incentives (congestive heart failure and pneumonia) (P=0.36 for interaction). Among hospitals that were poor performers at baseline, mortality was similar in the two groups of hospitals at the start of the study (15.12% and 14.73%; difference, 0.39 percentage points; 95% CI, −0.36 to 1.15), with similar rates of improvement per quarter (0.10% and 0.07%; difference, −0.03 percentage points; 95% CI, −0.08 to 0.02) and similar mortality rates at the end of the study (13.37% and 13.21%; difference, 0.15 percentage points; 95% CI, −0.70 to 1.01).

CONCLUSIONS
We found no evidence that the largest hospital-based pay-for-performance program led to a decrease in 30-day mortality. Expectations of improved outcomes for programs modeled after Premier HQID should therefore remain modest.
Part 4

Myths and facts

Myth 7:
Physicians are poorly paid in nationalized systems.

Fact: It is a myth that doctors practicing under national health insurance are compensated significantly worse than their American colleagues.

See: “How does national health insurance affect physicians’ income?” PNHP document.

How does national health insurance affect physicians’ income?

Myth: Doctors are poorly paid in single-payer systems.

Fact: While some international comparisons of raw physician incomes portray U.S. physicians as staggeringly better off, a more careful analysis reveals otherwise. When compared to average national wages, American doctors don’t fare significantly better than their colleagues in countries with single payer systems, such as Canada and the United Kingdom.

American general practitioners (GPs) earn 3.4 times the average U.S. wage, while Canadian and Icelandic GPs earn 3.2 to 3.5 times their national averages.

If you’re a specialist seeking high pay, you’re better off in The Netherlands: Dutch specialists make 7.5 times the average national wage, versus 5.5 in for American specialists.

American physician pay isn’t keeping up with inflation, either. While average U.S. inflation-adjusted wages increased between 1995 and 2004, physician income decreased. In contrast, doctors in Canada and the British received pay increases similar to or exceeding average wages. Thanks to a new contract in 2004, British GPs gained a 23 percent salary boost.

Additional factors for medical practices: in single payer systems such as Canada’s, administrative costs in physician offices and malpractice premiums are much lower, freeing up money for patient care and physician reimbursement.

Myth: Doctors in countries with national health insurance work more.

Fact: Doctors in countries with national health insurance work comparable (or fewer) hours to doctors in the U.S. In an average of seven OECD nations, GPs worked 49.9 hours per week and specialists work 51.6 hours per week. In the U.S., GPs worked 51.4 hours and specialists 54.3 hours.

Myth: Canadian doctors are flocking to the United States.

Fact: Since 2004 Canada has received a net gain of physicians due to migration: between 2004 and 2006, 177 more doctors moved to Canada than left.

Between 2002 and 2006, the total number of physicians in Canada increased 5 percent, slightly more than population growth over the same period.

Sources:
As the United States struggles with health reform, Canadians observe with a mix of fascination and horror as the lies about their health care system swirl in the US media. The discussion was particularly intense in the months leading up to passage of the Patient Protection and Affordable Care Act on March 23, 2010.\(^1,\!^2\) Many of these myths have been exposed. Canadians do have free choice and good access; public administration does not add to cost, rigidity, or complexity of services, nor does it exclude private-sector involvement.\(^3\) The majority of Canadians who receive health care in the United States did not seek it deliberately; rather, they fell ill while traveling. Furthermore, their out-of-country costs are covered by the Canadian system.\(^4\) Nevertheless, the supposed faults and flaws of the Canadian system are used in US political arguments about the merits and demerits of a single-payer system.

Among the persistent myths is one about physician income and freedoms. Increasingly, US doctors are committed to the concept of coverage for all citizens.\(^5\) But some are concerned about what might be at stake for them personally. Others who oppose the changes worry about their incomes and their freedom as professionals should the president succeed with “Canadian-style,” “government-run,” single-payer health care. In speaking to the media immediately after President Obama’s speech to the Joint Session of Congress in September 2009, physician—Congressman Charles Boustany of Louisiana characterized the proposals as having the potential to destroy jobs, explode the deficit, ration care, and take away “the freedom American families cherish.”\(^6\) Even proponents of health care reform think that medical income will decline.\(^7\) Indeed, evidence for better Canadian health care delivery to marginalized groups has been related to the lower fees commanded by physician services in that country. This argument relies on the idea that lower fees mean that relatively fewer tax dollars go to medical practitioners and more to services for health promotion and disease prevention.\(^8\) But fees are only tangentially indicative.

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The Impact of Single-Payer Health Care on Physician Income in Canada, 1850–2005

Jacalyn Duffin, MD, PhD

This study traces the average net income of Canadian physicians over 150 years to determine the impact of medicare. It also compares medical income in Canada to that in the United States. Sources include academic studies, government reports, Census data, taxation statistics, and surveys. The results show that Canadian doctors enjoyed a windfall in earnings during the early years of medicare and that, after a period of adjustment, medicare enhanced physician income. Except during the windfall boom, Canadian physicians have earned less than their American counterparts. Until at least 2005, however, the medical profession was the top-earning trade in Canada relative to all other professions. (Am J Public Health. 2011;101:1198–1208. doi:10.2105/AJPH.2010.300093)

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of earnings. For instance, Canadian physicians have lower practice expenses for a variety of reasons, including the lesser costs of billing, administration, and malpractice coverage. For both policymakers and historians, reliable information on physician net income (after expenses, before taxes) in both Canada and the United States is difficult to find. Impressionistic evidence documents disparities in earnings that typify both nations—disparities between family doctors and specialists, women and men, rural and urban practices. But it is generally acknowledged that “detailed and accurate comparative physician income studies are lacking.”

This article addresses that information gap by tracing the long view of the average Canadian physician’s net income—after expenses and before taxes—in three distinct periods: before, during, and after the advent of Canadian medicare. Sources include the Canada Census, government statistics, academic surveys, and special reports that were prepared during the advent of the current Canadian system. It will show that Canadian physicians are well paid and that medicare did not diminish their earnings. Rather medicare resulted in an initial, brief windfall of high earnings, even when compared with US data. The windfall was followed by a period of readjustment. Subsequently, Canadian medicare has maintained physicians as the top-earning professional group in that country.

**A Capsule History of Medicare in Canada**

Taxpayer-funded medicare in Canada did not appear at a single point in time; it emerged over a quarter century from 1962, when physician services were covered across Saskatchewan, to 1987, when the demise of optional “full billing” in Ontario began. It continues to evolve in addressing new technologies and changing needs. More information about this history, with images, timelines, and links to reports and legislation can be found at the government Web site for Health Canada, the CBC Digital Archives, and the new Online Exhibition of the Canadian Museum of Civilization.

**Saskatchewan Came First, 1944–1962**

Canadian medicare did not begin on a fixed date; nor was it a project of a single political party. The first experiment began in a single province with the Saskatchewan election of June 1944. As the Second World War dragged on, many jurisdictions in Canada had begun planning for social programs to avoid another postwar economic depression. The leader of Saskatchewan’s left-leaning Cooperative Commonwealth Federation party was Tommy C. Douglas, a Baptist preacher and a gifted orator. In his youth, Douglas suffered from severe osteomyelitis; the gratis services of a kind surgeon led to his recovery. Douglas said that “no boy should have to depend either for his leg or his life upon the ability of his parents to raise enough money to bring a first-class surgeon to his bedside.”

In 1944, Douglas and his team campaigned on a platform that promised free access to health care for all citizens. Their sweeping electoral victory made Douglas premier of what was frequently called “the first socialist government in North America.” He immediately ordered a survey on health care needs, and he invited Henry E. Sigerist, the eminent, Swiss-born physician and historian of medicine from Johns Hopkins University, to chair the health care reform. Sigerist’s survey found that Saskatchewan needed exactly what Douglas had promised: government-funded hospital, medical, nursing, and physiotherapy care; physicians on salary; more clinical facilities; and a medical school.

Hospital coverage was implemented throughout the province in 1947. A pilot project for medical care was launched in the town of Swift Current, and lengthy negotiations began with the provincial medical profession. Immensely popular, Douglas went on to win four straight elections. Eventually his team made concessions to the wary physicians, the most significant of which was fee-for-service payment for medical services rather than the proposed salary. Legislation for province-wide medical coverage was finally passed in 1962. A bitter, three-week doctors’ strike followed this new law, but the doctors lost. Within a year and despite their initial opposition, Saskatchewan doctors were earning more than they had in the past. One reason was that all their bills were paid and paid in full.

**The Rest of Canada Came Next**

While Douglas worked toward medical coverage in the 1940s and 1950s, public hospital insurance was becoming the norm in many other provinces. In 1950, 50% of Canadians had some form of private or nonprofit insurance for hospital care. A mere six years later, 99% of the population in all 10 provinces enjoyed government plans for hospital care. The following year, federal legislation, called the Hospital Insurance and Diagnostic Services Act (1957), promised
that half the costs of hospital care would be covered by the federal government. Since that time, transfers of funding from the federal government to the provinces, where the programs are administered, has provided more (or less) national leverage in health care policy.

In 1961, a national Royal Commission on Health Care Services was ordered by the Canadian Prime Minister, John Diefenbaker, the Conservative leader from Saskatchewan. The mandate was to survey all health-service needs, not only hospital care ones. It was chaired by Diefenbaker’s law school classmate, the Saskatchewan judge, Emmett Hall. The Commission toured the country and met with more than 400 different groups to gather information. Hall’s 1964 report recommended universal medicare for the entire country and adequate remuneration for doctors. An old-school Tory, Hall expected citizens to accept certain responsibilities for maintaining their health and to tolerate taxation for such a worthy cause; in exchange, the state should provide education for health professionals, as well as free doctoring and hospital coverage for its citizens. Hall was confident that the physicians and the elected officials could negotiate fees without costly third parties.

In 1966, the Canadian Medical Care Act was introduced by the Liberal government of Lester Pearson and was passed almost unanimously by parliament. But health care is a provincial matter, and this legislation was federal. Once again, large transfer payments were the carrot incentive to induce provincial buy-in. Physicians were suspicious of the cumbersome system, and implementation took place slowly in the various provinces. By 1972, all 10 provinces had enacted plans for both hospital and medical services. Revisions to the plans were made in 1977, and Hall conducted another national review in 1980.

The 1984 Canada Health Act clarified general principles and specified terms of federal transfers. Physicians were paid—sometimes wholly, sometimes in part—from the public purse depending on their location. In Ontario for example, the province would cover 80% of the negotiated fee, and physicians were entitled to bill patients privately for the remaining 20%. Three years later, to remain eligible for the federal transfer payments, Ontario required elimination of “full billing,” which the media had successfully labeled “extra billing.” Only a minority of physicians used this symbolic remnant of discretionary fees, but most of the province’s doctors went on strike over the issue. Again, the doctors lost, and some scholars suggest that public reaction to this strike cost the profession credibility and respect.

In times of economic stress during the 1990s, federal transfer payments dwindled. Wealthier provinces, such as Alberta, took this change as a cue to allow more private services. Nevertheless, most jurisdictions had already implemented the medicare plans.

Medicare in the Recent Past

Canadians may complain about wait times, but health care is the country’s most popular social program. Every major political party was involved in its implementation, and a publicly funded health care provision continues to be endorsed by every political party in every province. Proposing to abolish, or even alter it, is a form of political suicide. Recent reviews recommend changes within the system, rather than dismantling it.

Notwithstanding the enthusiasm of their patients, Canadian doctors have not been universally vocal in their support of medicare; some continue to believe that their incomes would be higher with private practice. Many physicians claim that larger slices of the health care pie go to hospitals or to purchasing drugs rather than to medical services. In 2005, a successful Supreme Court challenge, launched by orthopedic surgeon Jacques Chaoulli and his patient, threatened the status quo by asserting that patient rights were infringed by wait times. The Canadian Medical Association (CMA) endorses medicare in principle; however, recent CMA presidents, Brian Day (2007–2008) and Robert Ouellet (2008–2009), both advocated more private practice. In 2006, Canadian Doctors for Medicare emerged in response to these trends and now boasts nearly 2000 members.

One issue that gets lost in these cross-currents is that the actual amounts of physician net earnings are unknown to the general public. Since the 1990s, information on gross earnings (or billings) and on numbers of physicians is accessible from several sources, including the Canadian Institute for Health Information and annual provincial reports, such as British Columbia’s “Blue Book.” But these reports do not provide the expenses of practice, often between 40% and 60% of gross income; nor do they detail allowable deductions. As a result, they inflate indications of individual doctors’ earnings and may also minimize benefits.
CANADIAN MEDICAL INCOME

For this article on the history of physician income, the three periods under study were (1) before medicare, up to 1962; (2) during the advent of medicare, roughly 1962 to 1987; and (3) following the nationwide implementation of medicare, from 1987 forward.

Before Medicare

No official reports track Canadian medical income before 1900, but examples from surviving account books offer information about individual practitioners. By contrast, reliable statistics on wages of ordinary citizens are available. For example, from 1850 until 1880, the average wage of a laborer was roughly $300 a year with a range of $167 to about $400 (Canadian dollars of the time). Compared with ordinary workers, 19th-century doctors appear to have been well off (Figure A, available as a supplement to the online version of this article at http://www.ajph.org). Nevertheless, their assets were smaller than those of lawyers, and true wealth came from sources other than clinical practice. Studies of medical income in 19th-century United States suggest a similarly wide range and diversity in earnings.

Between 1900 and 1930, most Canadian doctors enjoyed a “comfortable but not affluent income” that rose from Can $2000 to Can $6600. According to the Canada Census between 1931 and 1961, physicians admitted to generous incomes rising from Can $3095 to Can $6575 and ranging between two and three times national averages. During this period, top earners were lawyers in 1931 and 1941; doctors in 1951; and chemical engineers in 1961. The Census relies on self-reporting. Compared with government taxation sources, it seems that doctors (and others) underestimated their earnings by 15% to 60%. Consequently, the ratio of medical income to that of average earners is probably a more reliable indicator than the actual amounts. Before medicare, according to the Census, medical income was above average, but it was declining from three and a half to two times that of all Canadians by 1961 (Figure 1).

The Advent of Medical Care, 1962–1987

The best source on net medical income through this period is the annual Taxation Statistics of the federal Department of Revenue, the so-called “green books.” The amounts were taken from income tax returns. They were always greater than those reported in the Census for the professions and for average earners. From 1946, physician income was specified in Taxation Statistics under “professions,” with law, dentistry, engineering, and architecture. Figure 1 shows that, according to taxation data, medical earnings rose steadily through the advent of medicare.

More information on doctors’ earnings was made available during the Hall Commission survey. The federal Department of Health and Welfare reported physician income in a special “Health Care Series” with yellow covers. These reports collected data back to 1957 and then tracked rising public expenditure on physician services that marked the shift from private to public payment forward to 1972. Attention was
given to gender, location, and specialty, and comparisons were made with other professionals and ordinary workers. These “green” and “yellow” books show that medical enhanced physician earnings at the outset—for example, Saskatchewan doctors saw an abrupt rise in income in the year following their 1962 strike, when the new medicare system ensured that all their bills were paid in full.

Three contradictory reasons were said to have prompted publication of the “yellow books.” First, the reports would allay medical fears and ensure that the profession was not being short-changed. Second, the books demonstrated the greater income from group practice, a method promoted by Hall. Third, physicians suspected that the government chose to publish the books in order to manipulate public opinion by featuring their wealth.

The media loved the “yellow books” and “green books,” but doctors resented them. D.A. Geelkie, communications director of the CMA, opined that they were “malicious,” seeking to “compare sheeps to goats if not alligators”; the “only reason for publishing such data,” he wrote, “is to exaggerate the gap between the average Canadian and the high earning physicians.” They were “inaccurate,” “inappropriate,” and morally “wrong.”

To express these concerns in 1972, the Canadian Medical Association Journal constructed a medical metaphor. “Every fall,” it complained, “there is a short epidemic of newspaper articles . . . about physicians’ earnings . . . The causative organism . . . [is] the publication of two separate but related government reports”: the “green books” and “yellow books.” “We receive a number of missiles asking why we don’t put a stop to such reporting or provide an explanation to put the profession in a more favourable light.”

The following year, medical frustration and suspicion prompted Geelkie to construct an imaginary interview with the hypothetical “Dr Joe Average Canuck” and his wife, Ethel, who earns “no income but spends well . . . almost lavishly.” “[N]o male chauvinism intended for the 12% of the profession that is female,” wrote Geelkie, but Joe “is a pretty nice guy. He works hard, is conscientious, and serves good Scotch.” Yet, Joe laments, “I am not nearly as well off as most people believe.” The fictitious interviewer “suggested there had to be a limit to what Canada could pay physicians.” Then the phone rang, and Doc Canuck rushed off to an emergency, although he was not on call.

Sympathy for the doctors’ plight can be found in the graph of percentage change in net earnings through this same period (Figure B, available as a supplement to the online version of this article at http://www.ajph.org). With periodic controls set on their fees and no protection from inflation of expenses, a yo-yo effect of chaotic swings for the percentage of change of physician earnings contrasts starkly with the slow steady rise for average Canadians exemplified by employees and laborers. The supposedly reassuring numbers were alarming. Physicians resentment over the “yellow books” ended with the books’ demise in 1973. This quiet execution coincided with the year since 1957 that the percentage of change of medical income actually fell below that of average Canadians. For once, the government may also have found the report embarrassing.

Notwithstanding this marked drop in the percentage of change of earnings for 1972, medical income had peaked at an all-time high in the preceding year (Figure 1). Henceforth, analysts would refer to this rise as the “windfall” of early medicare, which ended after the 1971–1972 peak year. In his annual rant of 1975, Geelkie described a dramatic reversal in “pecking order of the various professional groups,” referring to yet another decline in the percentage of change of medical earnings, although actual income amounts continued to rise. This “period of adjustment” set the stage for a future climate of mistrust.

The 1970s was a decade of tension. Physicians continued to be the top earners, but their net incomes rose at a rate that was less than in the recent past, less than inflation, and less than those of other professions. The result was a steady decline in medical income relative to average earners over a decade until about 1981, although earnings never dipped as low as they had been before medicare (Figure 1). To control costs, some policy analysts recommended closing immigration to foreign graduates and ending the fee-for-service system in favor of salaries. Many anxious reports and editorials appeared; doctors threatened to move to the United States. Medicaid was said to have taken a toll on physician morale, professional satisfaction, and financial status. Some surveys aired in American media to emphasize the “disatisfaction,” “bitterness,” and thoughts of leaving among Canadian doctors victimized by government interference.

By 1980, an economist recommended what Hall had opposed: that fee schedules be reviewed regularly by a third party. This plan was never implemented. Fees are still negotiated by professional associations and governments without third-party mediators.

Notwithstanding the temporarily reduced rate of change in their earnings, physicians constituted the top-earning profession in Canada every year from 1958 forward and into the present. Their average net income increased at a rate that consistently outstripped that of all citizens: 1200% versus 676% over 4 decades. The ratio of physician income to that of all Canadians was higher than before medicare, ranging between three and five-and-a-half times with an overall upward trend. Sometimes the percentage of increase was less than that of other professions, but actual earnings remained greater. The gap between physicians and the next-highest income group peaked in the early 1970s “windfall” moment, readjusted in the mid-1970s, and then steadily widened again in favor of physicians. The relative drop during the decade of 1971 to 1981 exemplifies the profession—government tension in that time of anti-inflation measures and fixed fees—tensions that pervaded the media and the popular, uncontrolled surveys cited previously.

The “green book” figures were slightly higher than were those in the “yellow books” because Taxation Statistics included income sources other than practice, such as securities and real estate; in some years, salaried doctors were excluded. Doctors argued that the “green books” gave a falsely high impression of their earnings and blurred distinctions between general practitioners versus specialists, rural versus urban, male versus female, and...
salaried versus private. After 1992, *Taxation Statistics* information on medical earnings dried up, owing to revisions in income tax law that relieved taxpayers of the obligation to specify their occupations.

**Late 1980s to 2005**

For the most recent decades, the best source on net medical income remains the Canada Census. Once again, the data are self-reported and probably underestimated. Turning from the more reliable *Taxation Statistics* to sole reliance on the Census source generates an apparent, abrupt drop in medical income between 1992 and 1995 (Figure 1). According to the Census, however, the trend in income continued upward with no drop, seemingly at the same rate as before 1992. Therefore, the “drop” between 1992 and 1995 may be an artifact of the Census source and the underreporting that characterizes it for all citizens.

From 1992 to 1995, the *Medical Post* reinstigated its satisfaction surveys, and the CMA conducted a similar study in 1997. But these polls provided no details on income because such questions were not asked.

**COMPARISON WITH US PHYSICIANS**

Finding reliable historical information about medical earnings in the United States is even more difficult than it is for Canada. Like their northern colleagues, US physicians have not been forthcoming about their earnings, except when it comes to protesting inflated estimates.

As early as 1897, an American doctor suggested that rich doctors were charlatans. In 1911, a remark that medics earned “princely sums” drew a sharp rebuke. In 1989, a physician wondered about the uncaring message of ostentation sent by the luxury cars belonging to his colleagues. Most articles on physician earnings in the American peer-reviewed literature address concerns about income of particular medical groups identified by specialty, location, or other characteristics, such as radiologists, neurologists, surgeons, women, and academics.

Without a single-payer system, Americans must rely on volunteer surveys conducted by the profession, scholars, government, or the media. But surveys are vulnerable to the criticisms of definition, response rate, honesty, and variable motivation: those with perceived complaints respond more reliably. And, just as in Canada, disparities emerge involving gender, race, location, and specialty, and between reported versus actual income.

American sources for this research included a survey on physician income undertaken by the Committee of Costs on Medical Care just before the stock market crash of 1929, a government study from 1945 to 1966, and sporadic surveys conducted by academics by the journal *Medical Economics* from 1948 to 2003, and by the American Medical Association in 1928, 1949 to 1950, and from 1988 to 2003 (Figure C, available as a supplement to the online version of the article at http://www.ajph.org). Median incomes, if given, were lower than average incomes, but not all surveys provided both figures.

The data points shown in the supplemental figure were consolidated. If two different incomes were reported when these surveys occasionally coincided, an average was taken. Converting Canadian medical incomes (as shown in Figure 1) to historical equivalent US dollars and converting both American and Canadian figures to 2005 US dollars allows comparison of medical earnings in the two countries across 8 decades (Figure 2).

Figure 2 shows that US physicians have almost always earned more than Canadian physicians. The gap closed at the advent of medicare during the 1960s and early 1970s, when Canadian doctor income soared to equal and even exceed that of American doctors. Then the gap widened again; however, the mid-1990s disparity may be apparent, owing to the Canada Census source for the years after 1992. The latest figures suggest a renewed trend to narrow the gap with a relative decline in US physician earnings while the Canadian equivalent continues to rise.

But these differences in income may be common to all Canadian and US earners, not only physicians. The historical
Canadian GDP per capita is close to the income of the average worker (Figure 1). It has never equaled that of the United States, ranging from a high of 91.4% in 1904 to a low of 60.3% in 1934 with other peaks in the late 1960s and early 1970s. \(^5^6\)

Through time, the ratio of Canadian to US physician earnings, as shown in Figure 2, has ranged from 0.4 to 1.1. Figure 3 compares this ratio of physician income in the two countries to the ratio of the GDP per capita between the two countries for the same period. It appears that, in the early years of medicare—roughly 1962 to 1970—Canadian physicians fared at least as well or better than their country as a whole relative to the United States. Then, as medicare became established, Canadian physicians fared less well. Once again, however, the wider gap after the mid-1990s could be attributable to the Census source that suggests a falsely lower medical income.

However, it is perhaps more meaningful to compare physician incomes to the GDP per capita within each country—i.e., Canadian physicians to Canadian citizens, and US physicians to US citizens—something the Canadian government had been trying to do with “yellow books” of the 1960s and early 1970s (Figure 4).

Figure 4 shows that the ratio of physician earnings to the GDP per capita in their own countries has been high, ranging from roughly 3 to 10 times. Surprisingly, the greatest ratio was Canadian, not American, from roughly 1962 to 1972, when physician earnings reached 10 times the GDP per capita of that
nation during the “windfall” years of early medicare. Indeed, Canadian physicians also seem to have experienced the lowest ratios in the 1980s and mid-1990s. Since then, the Canadian ratio has been increasing, although it remains smaller than its American equivalent. But, again, Canadian values from the mid-1990s may be falsely low owing to the use of the Census source in the absence of disaggregated tax data.

Overall, Figure 4 shows that the US ratio has usually been higher than the Canadian ratio, and its range narrower, from just above five to just over eight times the GDP per capita in that country; the trend may be declining since the mid-1990s. In 2005, US doctors earned about five-and-a-half times the US GDP per capita; Canadian doctors earned about four times their country’s GDP per capita. These estimates are backed by a recent international study of physician supply.

SUMMARY

To summarize these results, Canadian doctors were always well paid. Before 1900, they were comfortable, but they drew on many income sources and carried large debts. The advent of medicare resulted in a temporary boom that raised expectations and provoked a funding crisis. Following the 1971–1972 peak in medical earnings, controls—on fees, wages, and prices—set the thermostat for reactions between the profession and government. Annual percentage changes in medical income were sometimes negative or less than inflation for several years. This situation fostered insecurity and a lingering physician mistrust of government. However, the years after 1981 saw a steady rise in medical income. Data for physician income after 1992 may be falsely low owing to the Census source. Changes promised to the Canada Census in 2010 imply that its accuracy could decline further in the future, and information on health and income data will be even more difficult to obtain. Nevertheless, the trends revealed in this research are reliable. Over nearly 60 years, into the 21st century, physician income grew at a rate of increase that outpaced that of other Canadians. Since 1958 through the advent of medicare, until at least 1992 and probably into the present, physicians, as a professional category, were the top earners in the country.

Compared with the best figures available for US physicians, Canadian doctors have almost always earned less. However a comparison of medical earnings to the GDP per capita in each country shows that Canadian physicians earned proportionately most in the early years of medicare, peaking around 1972 when amounts equaled and briefly exceeded US medical income. Their earnings then returned to three or four times that of the GDP per capita, a level that is nonetheless greater than it had been before medicare, and that is still rising. An analogy can be found here with the apparent boom in US medical income associated with the advent of US Medicare in 1966.

The observation that Canadian physicians are paid less than their American counterparts invites us to ask, what do Canadians “get” in exchange for paying their physicians less than their American counterparts? A 1990 study showed that, although per capita expenditures on health in the United States were higher than those in Canada, the actual number of services was fewer. In other words, Canadian citizens were getting more and spending less. Perhaps the corollary of this observation is that Canadian doctors suffer because they work more for less. Other comparisons suggest that the high costs of American care are not owing to the admittedly higher physician fees and income, but rather to the much greater costs of administration generated by the private insurance industry.

In Canada, proportionately more resources are devoted to public health and to providing free access to all citizens through a system that costs less than its American counterpart and is associated with longer lifespan and lower infant mortality. In other words, better health indicators and greater accessibility are correlated with the lower physician income.

Is it possible that high physician income could be correlated with lower health outcomes? The health indicators of Cuba, for one extreme example, are among the best in the world for a developing nation; yet, physicians in that country—the vast majority of whom are in general practice—are known to exist on derisory salaries amounting to less than US$600 a year. Anthropological researchers characterize the health of the country as a “gift,” provided by the collective, including its doctors.

Using the gift analogy then, Canada’s doctors, who often pay lip service to “advocacy,” “accountability,” and “teamwork,” can be seen to make an investment in public health stemming from their lower earnings relative to American doctors. But we have no idea what the contribution has been costing them in recent years—if anything—because we cannot obtain the figures.

No one is proposing to cut physician incomes to the insubstantial amounts of Cuba. Yet how much money do doctors really need? A few scholars have used a variety of economic theories to analyze physician income. By whatever model they chose to define the task, the amounts paid in Canada and the United States were said to be too great. In other words, whether or not it correlates with lower health indicators, high medical income could be a moral problem.

OBSERVATIONS AND RECOMMENDATIONS

From this research, we observe that even when the readjustments resulting from various policy and payment alterations are taken into account, Canadian medicare did not lead to a loss in physician income. Rather, physician incomes grew more quickly than those of other Canadians and are considerably greater. In short, the medical-income argument against moving toward a Canadian-style system is feeble. The only way to revive it would be to find different and more reliable data.

Therefore, a recommendation arising from this work is to make more data on physician income available. The information for this research was not easily gathered; better figures may reside in sources currently inaccessible to the average practitioner or historian. Distinctions between specialties, race, gender, and geographic location would emerge.

This information problem raises several questions relevant to both countries. Why should medical income be secret? Are physicians embarrassed by their
wealth? Someone has to be the top earner. What is wrong with that person being a doctor instead of a hockey player? Even more puzzling—if not ironic—is the effect of Canadian legislation, such as the Ontario Public Sector Salary Disclosure Act (1996), which ensures that the actual names and actual incomes of citizens paid more than Can $100,000 from the public purse are published every year in the so-called “sunshine lists” at government Web sites and in leading newspapers. 

This move to greater accountability makes an annual spectacle of the wages of teachers, professors, police officers, hospital administrators, and government employees—anyone paid by tax dollars. Journalists and voyeuristic citizens use the lists to scrutinize individual and collective use of resources. But doctors’ names do not appear in these famous lists unless they enjoy public-sector salaries, such as stipends for academic or hospital administration. Yet, they are paid by the taxpayer whether their earnings derive from salaries or from fee billings; transparency and accountability dictate that taxpayers have a right to know how all their money is spent.

Therefore, physicians should join citizens in encouraging the revival of those annual “green” and “yellow” reports, or their equivalents. Doctors might be pleasantly surprised to discover that patients believe that they are entitled to high incomes because of their many years of expensive study, heavy responsibilities, and long hours of work. In turn, citizens might have reason to take pride in remunerating hardworking physicians at a level that is decent without being obscene.

The universal, single-payer system has been good not only for Canadians but also for their doctors. At least, it has done no harm.

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This article was accepted November 27, 2010.

Acknowledgments
I gratefully acknowledge the contributions of Irfan Dhillon of the University of Toronto; Phil Giles and Rejean Lauzier of Statistics Canada; Jeff Moon of the Queen’s University Documents Library; David Elder, Duncan G. Sinclair, Arthur Sweetman, and Robert D. Wolfe of Queen’s University School of Policy Studies; David M. C. Walker, former Dean of Queen’s University Faculty of Health Sciences; and Theodore Brown, Elizabeth Fee, and two anonymous reviewers for the journal.

Endnotes
17. Government of Canada, Medical Care Act, Statutes of Canada (c 64, s 1), 1966–1967.
21. R. Romanow, Building on Values: The Future of Health Care in Canada (Saskatoon, Saskatchewan: Commission on the Future of Health Care in Canada, 2002); Michael Kirby, Reforming Health Protection and Promotion in Canada: Time to Act (Ottawa, Ontario: Standing Senate Committee on Social Affairs, Science and Technology, 2003).


Myths and facts

Myth 8:
Immigrants are using our health care resources, driving up costs.

Fact: Immigrants and emergency department visits by the uninsured are not the cause of high and rising health care costs. Immigrants actually contribute more to the Medicare Part A Trust Fund than they take out.


The United States is a nation of immigrants. In 2000, the immigrant population of the United States was 28.4 million, 10.4% of the total population. In one of the most comprehensive analyses to date on the costs and benefits of immigrants to the US economy, the National Research Council concluded that immigrants add as much as $10 billion to the economy each year and that immigrants will pay on average $80,000 per capita more in taxes than they use in government services over their lifetimes. The Social Security Administration estimates that workers without valid social security numbers contribute 8.5 billion dollars annually to Social Security and Medicare. Such migrants use a computer-assisted program to register and receive no eligibility credits for their contributions.

Researchers from the Center for Immigration Studies have concluded that because immigrant labor has “limited value . . . in an economy that increasingly demands educated workers,” providing insurance to immigrants is “at the taxpayer expense.” These views have resulted in legislative initiatives such as California’s Proposition 181, which attempted (before it was ultimately overturned in court) to bar undocumented immigrants from receiving nonemergency health services. Similarly, the 1996 Personal Work and Responsibility Reconciliation Act made most legal immigrants ineligible for Medicaid for 5 years after entry.

Although more recent surveys suggest that public attitudes toward immigrants’ contributions, particularly with regard to economic impact, are becoming more positive, public fears after September 2001 may reverse this trend.

In this study, we used nationally representative data to compare the health care expenditures of immigrants and US-born individuals.

**METHODS**

**Survey Instrument**

We analyzed data from the Agency for Healthcare Research and Quality’s 1998 Medical Expenditure Panel Survey (MEPS). This survey is designed to provide nationally representative estimates of expenditures and health services for the US civilian noninstitutionalized population. To provide estimates for specific priority populations, MEPS oversamples low-income families and ethnic minorities. MEPS data are compiled through information obtained from the Household Component, the Medical Provider Component, and the Insurance Component of MEPS. In the MEPS Household Component, respondents use a computer-assisted program to report sociodemographic characteristics, health and functional status, use of medical care services, health insurance coverage, income, and employment. The MEPS Medical Provider Component supplements and validates information on medical care events reported in the Household Component by contacting providers and facilities identified by household respondents. The Medical Provider Component includes expenditure data from hospitals, outpatient medical providers, home health agencies, and pharmacies.

We analyzed total health expenditures during 1998, including expenditures for several specific population subgroups and categories of health care. MEPS defines expenditures as the sum of payments for care provided during 1998. This figure includes payments such as out-of-pocket payments, insurers’ payments, and imputed payments for free care received in public hospitals or clinics. The Agency for Healthcare Research and Quality uses weighted sequential hot-deck imputation for any missing values (for a respondent with missing data, values are imputed from the nearest preceding respondent in the sequence.
who has similar characteristics and complete information). MEPS combines facility and physician expenses when tabulating emergency department, hospital-based outpatient, and inpatient expenditures. Payments for over-the-counter drugs and for alternative medicine (e.g., acupuncture, chiropractic care) are not included in MEPS. MEPS expenditure estimates exclude costs for health care administration and institutionalized care. However, after adjustment for these omissions, MEPS estimates of national health expenditures substantially agree with those of the US Department of Health and Human Services’ National Health Accounts.

MEPS expenditure data include estimates of free care and bad debt in public hospitals or clinics. These imputed expenditure data are designed to account for payments, made from government budgets, that are not tied to specific patients. However, MEPS expenditure data do not cover uncollected liabilities, negotiated discounts, bad debt, and free care associated with private providers. By some estimates, US hospitals (public and private) write off as much as $2 billion a year in unpaid medical bills to treat illegal immigrants. Therefore, we performed a separate confirmatory analysis of MEPS total charges (rather than expenditures) for health care, which include free care delivered at any site. Charge variables should be interpreted with caution, because they do not represent actual dollars exchanged for services or the resource costs of those services.

To obtain data on the immigration status of respondents, we combined the Household Component file of the 1998 MEPS with the 1996–1997 National Health Interview Survey (NHIS), which asked respondents about their place of birth. Each year, MEPS draws a new panel from the previous year’s NHIS sample. The NHIS includes self-reported data on place of birth as well as on a variety of other sociodemographic and household characteristics not included in the MEPS. As described elsewhere, NHIS and MEPS data sets can be linked. In 1998, MEPS sampled 24072 individuals and assigned positive person-level weights for 22953 individuals. We were able to link 21 241 individuals in the MEPS sample (18 398 US-born persons and 2843 immigrants) with the NHIS sample. Individuals sampled in MEPS were not linked with the NHIS sample (or did not receive a person-level weight) if they were not a member of an NHIS household at the time of the 1996–1997 NHIS interview but had entered the household by the time of the MEPS interview (e.g., newborns; those returning from military service, college, or travel; those newly married or moving into a new household).

We found that when these files were linked, 7.4% of the MEPS sample was omitted. This factor remains a limitation of the MEPS–NHIS merge, because no weighting adjustment was made for these missing individuals. Despite this limitation, the merging of these 2 national data sets is an accepted methodology. An individual was defined as US born if he or she was born in one of the 50 states or the District of Columbia. All others were classified as foreign born. Foreign-born persons included naturalized citizens, permanent residents, visa holders, refugees, and undocumented immigrants. However, data on specific resident categories were not provided in the NHIS. For the purposes of this study, the terms “foreign born” and “immigrant” were considered to be synonymous.

Statistical Analysis

To obtain nationally representative estimates, we used person-level weights (which reflect population distributions and account for each household’s probability of selection), ratio adjustment to national population estimates at the household level, and adjustment for nonresponse. Because population estimates may be unstable if cells have fewer than 100 respondents, we combined such small cells with other subgroups for our analyses. To obtain estimates of variability, we used a Taylor Series estimation approach with the SUDAAN software package. We performed χ² analyses to examine the distribution of categorical variables among immigrants and US-born persons. We used t tests to compare mean per capita health expenditures among groups.

To obtain estimates of health expenditures adjusted for potential covariates, we used the Rand Health Insurance Experiment 2-part regression model. This model is used to analyze heteroscedastic and highly skewed data such as health care expenditures (many people report no health care expenditures). The model uses an initial multivariate logistic regression to predict the probability of having any expenditure. This probability is multiplied by the predicted log-transformed expenditure of any individual with nonzero expenditures (as determined from a multivariate linear regression model of individuals with nonzero expenditures). For this 2-part model, we used SUDAAN statistical software, which allows adjustment for complex survey design.

Covariates in the 2-part model included the following: age (analyzed as both a continuous and a categorical variable), gender, race/ethnicity, family income (dichotomized as either <200% or ≥200% of the federal poverty level [FPL]), education, insurance status, self-reported health status, residence in a metropolitan statistical area, and geographic region. In preliminary models, we found that after adjustment for other covariates, gender, education, geographic region, and metropolitan statistical area were no longer significant predictors of health care expenditures, nor did they improve the model fit. They were therefore excluded, leaving the following covariates in the final regression models to predict expenditures: age (as a continuous variable), race/ethnicity, insurance status, family income, and self-reported health status. Additionally, we explored the possibility of interactions of the covariates with immigrant status. We found a significant interaction between immigrant status and race/ethnicity, and therefore included an interaction term in the multivariate regression analyses.

As in other studies, we used smearing factors to retransform the final estimates and calculated standard errors for predicted expenditures, using bootstrapping with 2000 iterations. We also conducted a stratified regression analysis of health care expenditures by insurance status and income, again controlling for the other covariates in the model. We opted to perform these stratified analyses because income and insurance status are important predictors of health service use.

We also performed a subgroup analysis of government payments (Medicare, Civilian Health and Medical Program of the Uniformed Services of the United States [CHAMPUS], Civilian Health and Medical
Program of the Veterans Administration (CHAMPVA), Tricare, Medicaid, and other public hospital/physician coverage) by using a 2-part multivariate regression model similar to that described in this section.

Because children’s health care use differs from that of adults and is of particular policy interest,26,31,32 we performed separate analyses comparing immigrant children (n=276) with US-born children (n=5657) younger than 18 years. For children, we also used a 2-part model regression analysis similar to that described in this section, controlling for age, race/ethnicity (including a term capturing the interaction of race/ethnicity with immigrant status), poverty level, insurance status, and functional status. In our model for children, we included 2 variables that have been used as surrogates for a child’s functional status20,26: (1) whether a child resists illness well (reported by a parent) and (2) whether a child performs age-appropriate tasks (also reported by a parent).

**RESULTS**

In 1998, immigrant health care expenditures were $39.5 billion (SE=$4.0 billion), or 7.9% of the US total. This figure included $25.0 billion (SE=$3.4 billion) in payments made by private insurers on behalf of immigrants, $2.8 billion (SE=$0.4 billion) paid directly by immigrants, and $11.7 billion (SE=$1.7 billion) paid by government sources. US-born individuals (90% of the population) accounted for 93% of private insurer expenditures and 92% of both government and out-of-pocket payments.

We found that immigrants differ from US-born persons in demographics, unadjusted per capita health expenditures, and adjusted health expenditures. Demographic data are presented in Table 1. Immigrants overall were younger, although the immigrant population contained a lower proportion of children than did the US-born population. In addition, compared with US-born persons, immigrants had lower incomes and educational attainment and lower self-reported health status, and were more likely to live in the West, the Northeast, and urban regions.

Unadjusted per capita total health care expenditures were lower for immigrants than

<table>
<thead>
<tr>
<th>Per Capita Expenditures, $</th>
<th>US-Born Persons (SE)</th>
<th>Immigrants (SE)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age, y</strong>*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-11***</td>
<td>573 (34)</td>
<td>291 (66)</td>
</tr>
<tr>
<td>12-17***</td>
<td>932 (65)</td>
<td>220 (51)</td>
</tr>
<tr>
<td>18-44*</td>
<td>1408 (61)</td>
<td>994 (158)</td>
</tr>
<tr>
<td>45-64**</td>
<td>2716 (105)</td>
<td>1833 (196)</td>
</tr>
<tr>
<td>≥ 65</td>
<td>5247 (222)</td>
<td>4776 (745)</td>
</tr>
<tr>
<td><strong>Gender</strong>*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male**</td>
<td>1703 (67)</td>
<td>1244 (131)</td>
</tr>
<tr>
<td>Female</td>
<td>2290 (71)</td>
<td>1916 (246)</td>
</tr>
<tr>
<td><strong>Race/ethnicity</strong>*</td>
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<td></td>
</tr>
<tr>
<td>White</td>
<td>2153 (59)</td>
<td>2351 (338)</td>
</tr>
<tr>
<td>Black</td>
<td>1632 (136)</td>
<td>1539 (374)</td>
</tr>
<tr>
<td>Hispanic</td>
<td>1184 (109)</td>
<td>1233 (150)</td>
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<tr>
<td>Asian/Pacific Islander</td>
<td>1776 (853)</td>
<td>1295 (347)</td>
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<tr>
<td><strong>Insurance status</strong>*</td>
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<td></td>
</tr>
<tr>
<td>Any private</td>
<td>1906 (54)</td>
<td>1711 (213)</td>
</tr>
<tr>
<td>Public only</td>
<td>3447 (192)</td>
<td>2749 (364)</td>
</tr>
<tr>
<td>Uninsured</td>
<td>629 (59)</td>
<td>459 (66)</td>
</tr>
<tr>
<td>Family income as % of federal poverty level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 200***</td>
<td>2189 (100)</td>
<td>1419 (180)</td>
</tr>
<tr>
<td>≥ 200</td>
<td>1932 (57)</td>
<td>1687 (206)</td>
</tr>
<tr>
<td><strong>Health status</strong>*</td>
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<td></td>
</tr>
<tr>
<td>Excellent/very good/good*</td>
<td>1469 (38)</td>
<td>1167 (124)</td>
</tr>
<tr>
<td>Fair/poor**</td>
<td>6449 (298)</td>
<td>4465 (730)</td>
</tr>
<tr>
<td><strong>Education (adults only)</strong>*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; Grade 8</td>
<td>5186 (535)</td>
<td>1804 (261)</td>
</tr>
<tr>
<td>Grades 8-12***</td>
<td>2479 (95)</td>
<td>1483 (190)</td>
</tr>
<tr>
<td>&gt; Grade 12</td>
<td>2184 (86)</td>
<td>1831 (287)</td>
</tr>
<tr>
<td><strong>Region of country</strong>*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northeast</td>
<td>1971 (161)</td>
<td>1650 (242)</td>
</tr>
<tr>
<td>Midwest</td>
<td>2034 (74)</td>
<td>1550 (566)</td>
</tr>
<tr>
<td>South</td>
<td>2032 (94)</td>
<td>1758 (216)</td>
</tr>
<tr>
<td>West</td>
<td>1952 (68)</td>
<td>1454 (271)</td>
</tr>
<tr>
<td>**Residing in metropolitan statistical area ***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes*</td>
<td>1964 (57)</td>
<td>1563 (155)</td>
</tr>
<tr>
<td>No</td>
<td>2158 (105)</td>
<td>1935 (499)</td>
</tr>
<tr>
<td><strong>Total sample, mean expenditures</strong>*</td>
<td>2005 (50)</td>
<td>1582 (149)</td>
</tr>
</tbody>
</table>

Note. Data are from the 1998 Medical Expenditure Panel Survey and the 1996-1997 National Health Interview Survey. *P < .05; **P < .01; ***P < .001 (for comparison between immigrants and US born).

for the US born across all age groups (the difference for those 65 years and older was not statistically significant) (Table 2). For example, per capita expenditures of immigrant children younger than 12 years were 49% lower than those of US-born children, and expenditures of immigrant children aged 12 to 17 years were 76% lower than those of US-born adolescents. The differences in expenditures between immigrants and nonimmigrants were substantially greater for men than for women. Poorer immigrants and immigrants with government insurance had lower expenditures than did the poorer US born and the US-born publicly insured.

In Figure 1, we present percentile distributions of total health care expenditures, comparing US-born persons and immigrants. Total health care expenditures for both groups were highly skewed. The median total expenditure for health care was $1563 for US-born persons versus $1163 for immigrants (P < .0001). For all deciles shown, health care expenditures for US-born individuals were significantly higher than those for immigrants. In the lowest 3 deciles of health care expenditures, immigrants had no reported expenses. In the top decile, US-born individuals had expenditures that were $1342 higher than those for immigrants in 1998.

In our 2-part multivariate logistic regression model, immigrants had a lower probability of expenditures and a lower probability of expenditures for emergency care, office-based visits, and prescription medications than US-born persons (data not shown).

Adjusted expenditures were lower for all immigrants than for all US-born persons across all expenditure subgroups (Table 3). Health care expenditures for immigrants averaged $1139 per person in 1998, compared with $2546 for US-born persons (P < .0001). Immigrants also had lower adjusted expenditures for emergency care, office-based visits, outpatient visits, inpatient visits, and prescription drugs. Our confirmatory analysis of charges rather than expenditures found virtually identical trends (data not shown).

We also performed a multivariate analysis of health care expenditures stratified by insurance status and income. Per capita total expenditures of insured immigrants (those with any private or public insurance) were 52% lower than those of insured US-born individuals; expenditures for uninsured immigrants were 61% lower than those for the US-born uninsured. In a subgroup analysis limited to persons with public coverage, per capita expenditures of publicly insured immigrants were 44% lower than those of US-born persons who were publicly insured ($2774 [SE = $231] vs $4963 [SE = $189]; P < .0001). Expenditures of higher-income immigrants (those with incomes ≥ 200% of the FPL)
Dollar figures are for median total health care expenditures within each decile.


Note. Dollar figures are for median total health care expenditures within each decile.

were 53% lower than those of higher-income US-born persons; health care expenditures of lower-income immigrants (those with incomes <200% of the FPL) were 60% lower than those of lower-income US-born individuals. Similar patterns were seen in analyses of expenditures for emergency care, office-based visits, outpatient visits, inpatient visits, and prescription drugs stratified by insurance and income status.

Immigrant children were much more likely than US-born children to be uninsured (29% vs 9%, \( P < .0001 \)) or publicly insured (31% vs 20%, \( P < .0001 \)). However, immigrant children’s rates of public coverage were disproportionately low compared with the same children’s poverty rates: 43% of immigrant children lived in low-income families, compared with 23% of US-born children (\( P < .0001 \)).

Results of the unadjusted and adjusted models for children are shown in Table 3. Expenditures for total health care, office-based visits, outpatient visits, inpatient visits, and prescription drugs were markedly lower for immigrant children than for US-born children. However, per capita emergency department expenditures were more than 3 times higher among immigrant children than among US-born children.

We performed a stratified analysis by insurance status and income of children’s health care expenditures. Health care expenditures for insured immigrant children were 60% lower than those for insured US-born children. Health care expenditures for uninsured immigrant children were 86% lower than those for uninsured US-born children. Expenditures among higher-income immigrant children were 53% lower than those among higher-income US-born children. Expenditures of immigrant children in lower-income brackets were 84% lower than those of lower-income US-born children.

We also estimated health care expenditures among all US-born persons and immigrants according to race/ethnicity. As shown in Table 4, after multivariate adjustment, non-Hispanic Whites had the highest per capita expenditures, whereas Hispanics and Asians had the lowest per capita expenditures. Health care expenditures were similar for US-born and immigrant Asians. In contrast, adjusted health care expenditures for immigrant non-Hispanic Whites, non-Hispanic Blacks, and Hispanics were lower than those for US-born individuals from these groups.

DISCUSSION

Immigrants have less access to health care and less health care use than do US-born individuals, as reflected in their lower health care expenditures. Studies have shown that insurance coverage increases access to care and thus utilization of care, as well as improving health outcomes.32–35 In our study, we found that per capita health care expenditures for immigrants in 1998 were far lower than expenditures for the US born. In addition, among adults and children enrolled in publicly financed insurance programs, immigrants had lower per capita publicly-financed health care expenditures than did the US born. We also found grave disparities in expenditures among most racial/ethnic groups, particularly among immigrants who were non-Hispanic White, non-Hispanic Black, or Hispanic.

When stratified by age, immigrants in every age group but 65 years and older had health care expenditures that were 30% to 75% lower than those for US-born persons. Disparities among children were greatest, particularly among adolescents 12–17 years old. Combined with our finding of higher per capita emergency department expenditures for immigrant children, our data suggest that access to routine and ongoing care may be especially problematic for immigrant children. These findings are consistent with those of a 1999 study using NHIS data36 that showed foreign-born children were 5 times more likely than US-born children to lack a usual source of health care.

Ku and Matani37 found that noncitizen children were less likely than citizen children to have made ambulatory and emergency department visits. Like Ku and Matani, we found a significantly lower mean number of emergency department visits among immigrant children than among US-born children (data not shown); however, per capita emergency department expenditures for immigrant children were significantly higher because immigrant children’s costs per visit were much higher. This finding suggests that immigrant...
TABLE 3—Unadjusted and Adjusted Mean Per Capita Health Care Expenditures for All Ages and Subgroup Analysis for Children: 1998

<table>
<thead>
<tr>
<th>Per Capita Expenditures, $</th>
<th>All Agesa</th>
<th>Childrenb</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>US Born (SE)</td>
<td>Immigrant (SE)</td>
</tr>
<tr>
<td>Total health care</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unadjusted</td>
<td>2005 (50)</td>
<td>1582 (149)**</td>
</tr>
<tr>
<td>Adjusted</td>
<td>2546 (38)</td>
<td>1139 (62)***</td>
</tr>
<tr>
<td>Emergency department</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unadjusted</td>
<td>63 (3)</td>
<td>42 (8)*</td>
</tr>
<tr>
<td>Adjusted</td>
<td>91 (1)</td>
<td>33 (1)***</td>
</tr>
<tr>
<td>Office visits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unadjusted</td>
<td>423 (13)</td>
<td>323 (26)***</td>
</tr>
<tr>
<td>Adjusted</td>
<td>410 (5)</td>
<td>209 (11)***</td>
</tr>
<tr>
<td>Outpatient visits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unadjusted</td>
<td>228 (10)</td>
<td>231 (53)</td>
</tr>
<tr>
<td>Adjusted</td>
<td>241 (3)</td>
<td>102 (3)*</td>
</tr>
<tr>
<td>Inpatient visits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unadjusted</td>
<td>647 (36)</td>
<td>537 (94)</td>
</tr>
<tr>
<td>Adjusted</td>
<td>932 (22)</td>
<td>634 (44)***</td>
</tr>
<tr>
<td>Prescription drugs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unadjusted</td>
<td>310 (9)</td>
<td>195 (14)***</td>
</tr>
<tr>
<td>Adjusted</td>
<td>507 (10)</td>
<td>159 (11)***</td>
</tr>
</tbody>
</table>

Note. Data are from the 1998 Medical Expenditure Panel Survey and the 1996–1997 National Health Interview Survey.

aFor all age groups, mean per capita expenditures were predicted by a 2-part model with adjustments for age, ethnicity, poverty level, insurance status, and patient-reported health status, and a term for the interaction of immigrant status and ethnicity.

bFor children, mean per capita expenditures were predicted by a 2-part model with adjustments for age, race/ethnicity, poverty level, insurance status, parent-reported health status, and a term for the interaction of immigrant status and ethnicity.

*P < .05; **P < .01; ***P < .001 (for comparison with US born).

TABLE 4—Adjusted Per Capita Health Care Expenditures Among US-Born Persons and Immigrants of All Ages, by Race/Ethnicity

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Per Capita Expenditures, $</th>
<th>US-Born (SE)</th>
<th>Immigrants (SE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Hispanic White</td>
<td>3117 (40)</td>
<td>1747 (115)***</td>
<td></td>
</tr>
<tr>
<td>Non-Hispanic Black</td>
<td>2524 (80)</td>
<td>1030 (123)***</td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td>1870 (60)</td>
<td>962 (53)***</td>
<td></td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>1460 (138)</td>
<td>1324 (82)</td>
<td></td>
</tr>
</tbody>
</table>

Note. Data are from the 1998 Medical Expenditure Panel Survey and the 1996–1997 National Health Interview Survey.

*Mean per capita expenditures were predicted by a 2-part model with adjustments for age, poverty level, insurance status, and patient-reported health status. **P < .001 (for comparison with US born).

children may be sicker when they arrive at the emergency department. The higher emergency department expenditures we found for immigrant children probably reflect poor access to primary care (as evidenced by such children’s low outpatient, office-based visit health expenditures).

Some of our findings may be explained by the limits that the 1996 welfare reform legislation placed on immigrants’ eligibility for government health services. The Personal Responsibility and Work Opportunity Reconciliation Act imposed on immigrants’ eligibility for government health services. The Personal Responsibility and Work Opportunity Reconciliation Act and the Illegal Immigration Reform and Immigrant Responsibility Act substantially restricted recent immigrants’ eligibility for Medicaid and other public benefits.

Before 1996, all legal permanent residents and other legal immigrants had the same access to public benefits, including Medicaid, as did US citizens. However, welfare reform and other policies established a 5-year ban on Medicaid eligibility for nonresident immigrants entering the United States after August 1996. The reform also stated that the income of immigrants’ sponsors would be counted in determining eligibility and that sponsors could be held financially liable for public benefits used by immigrants. These policies created confusion about eligibility and appeared to lead eligible immigrants to believe that they should avoid public programs. Even in states that have attempted to continue public insurance for immigrants, lack of awareness of eligibility for these programs remains a problem.

Our findings remained robust even after adjustment for health insurance status, suggesting that immigrants compared with the US born, face additional unmeasured access barriers, including cultural and linguistic barriers. As an example 1 study at an inner-city clinic found that 1 in 9 immigrant parents reported that they had not brought their children in for care because they felt that the medical staff did not understand Latino culture. Additionally, among the 5–10 million immigrants residing in the United States who are undocumented, fear of deportation is a barrier.

Our finding of lower health care expenditures among immigrants cannot be explained by free care. The MEPS captures free care (and bad debt) in public (but not private) institutions as expenditures; the MEPS captures free care at any site as a charge. Our charge-based analysis yielded results very similar to those of our primary, expenditure-based analysis, indicating that adjustment of expenditure data for free care at private institutions would not change our results. This conclusion is also supported by a recent study that found no relationship between a state’s uncompensated care burden and its percentage of noncitizen immigrants. The deficit of care among immigrants is probably not because of less need; immigrants in our study had slightly worse self-reported health than US-born persons.

Several limitations of this study should be noted. First, because the 1998 MEPS, like the 2000 US census, did not ask about immigration or citizenship status, we could not distinguish between naturalized citizens and...
other immigrant groups. Thus, our immigrant category included many European-born persons who resided in the United States for decades, had already become US citizens, and had fully assimilated into US culture and the US economy and health care system. Had we been able to exclude such immigrants, we would probably have found greater disparities. Similarly, we could not specifically identify undocumented persons, whom we suspect have the lowest health care expenditures.

Our study also could not capture health care expenditures outside the United States, where some immigrants may travel to obtain care or prescription drugs. For example, immigrants near the Mexican border may obtain medications from pharmacies in Mexico. However, these omitted out-of-country expenditures could not be viewed as a burden on the US health care system. MEPS also omits expenditures for medical care received by institutionalized persons (including nursing home residents) and for nonprescription drugs. Studies have consistently found that racial/ethnic minority populations reside in nursing homes less often than do non-Hispanic Whites.

Our findings show that widely held assumptions that immigrants are consuming large amounts of scarce health care resources are invalid; these findings support calls to repeal legislation proposed on the basis of such assumptions. The low expenditures of publicly insured immigrants also suggest that policy efforts to terminate immigrants’ coverage would result in little savings. In addition, lower health care expenditures by immigrants suggest important disparities in health care use, especially for children. Immigrant children will grow up to become a major segment of the US workforce in the coming years. Ensuring access to health services needed for proper growth and development should be a national priority. Policies that may improve immigrants’ access to care include providing interpreter services, ending restrictions on Medicaid and State Children’s Health Insurance Program eligibility, improving employer-provided coverage for immigrant workers, and implementing universal national health insurance. Our study lends support to these and other initiatives aimed at reducing and ultimately eliminating disparities in access to and use of health services.

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This article was accepted August 6, 2004.

Contributors
S.A. Mohanthy originated the study, supervised all aspects of it, and completed the analyses. S. Woolhandler, D.U. Himmelstein, S. Pati, and O. Carrasquillo helped with conception of the study, interpretation of the findings, and writing the article. D.H. Bor assisted with interpretation of findings and editing the article. All authors contributed to study conception and design, acquisition of data, analysis and interpretation, and writing the article.

Acknowledgments
S.A. Mohanthy’s work was supported by an Institutional Health Resources and Services Administration research award, US Department of Health and Human Services (grant S D08 HP 50018).

Human Participant Protection
This study received institutional review board exemption from the University of Southern California.

References


Public Health Policy Forum

US Emergency Department Costs: No Emergency

Patrick H. Tyrance, Jr, David U. Himmelstein, MD, and Steffie Woolhandler, MD, MPH

Introduction

Emergency department (ED) visits have increased, many are for nonurgent complaints, and charges per visit are high. These facts fuel the perception that ED overuse (particularly by the uninsured) is an important cause of high medical care costs and cost shifting. In his health care reform proposal, the president underscored this view, promising substantial ED savings that would reduce cost shifting from the uninsured. Managed care plans routinely restrict ED use through several mechanisms: copayments, prior approval requirements, financial incentives for physician gatekeepers, and the threat of retrospective denial of payment after visits are completed.

Our analysis of nationwide data on ED costs challenges these perceptions and policy prescriptions. ED use accounts for a small fraction of medical spending, and cost shifting from uninsured ED patients is minuscule. Moreover, restricting ED use would disproportionately burden minorities and the poor, who are most reliant on EDs for care. Strategies that reduce demand for ED services (e.g., improved primary care; violence, drug abuse, and accident prevention programs) should be pursued to improve health, not because of anticipated cost savings.

Methods

Sample

We analyzed recently released data from the Household and Medical Provider Survey segments of the 1987 National Medical Expenditure Survey (NMES). The survey collected extensive information on medical care use and expenditures by or on behalf of approximately 35,000 people in 14,000 households. Each household was surveyed quarterly, and data were collected on demographics, health status, and use and sources of payment for health services during 1987. The Medical Provider Survey queried the EDs, physicians, hospitals, and home health care agencies used by these individuals to verify service use and diagnoses. Providers supplied data on payments received from third parties and total charges for care.

The NMES used a stratified multistage area probability design. The survey was designed to provide unbiased estimates for the US civilian, noninstitutionalized population and for subgroups of special policy interest: the elderly, low-income families, Blacks, and Hispanics.

Variables

On the basis of self-report, we classified individuals into mutually exclusive ethnic categories: Black (including Hispanic origin), White (non-Hispanic), Hispanic (excluding Blacks), and other. For the analysis of income, we classified individuals as poor (income below the federal poverty level), near-poor (100%–124% of poverty level), low-income (125%–199% of poverty level), middle-income (200%–399% of poverty level), or
TABLE 1—US Emergency Department (ED) Spending: Data from the 1987 NMES

<table>
<thead>
<tr>
<th>Total ED Expenditure,</th>
<th>Per Capita ED Expenditure</th>
<th>ED Spending as % of</th>
<th>ED Spending as % of</th>
</tr>
</thead>
<tbody>
<tr>
<td>millions (90% CI)</td>
<td>Sales of (90% CI)</td>
<td>Group's Personal</td>
<td>National Health</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Health Expenditures</td>
<td>Expenditures, by</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Insurance status</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Uninsured</td>
<td>$1101 ($988, $1213)</td>
<td>$37 ($35, $39)</td>
<td>4.68</td>
</tr>
<tr>
<td>Insured</td>
<td>$7728 ($7388, $8076)</td>
<td>$38 ($36, $40)</td>
<td>2.35</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Race/gendera</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>$1374 ($1199, $1550)</td>
<td>$47 ($41, $53)</td>
<td>3.18</td>
</tr>
<tr>
<td>Male</td>
<td>$696 ($544, $848)</td>
<td>$51 ($40, $62)</td>
<td>3.74</td>
</tr>
<tr>
<td>Female</td>
<td>$678 ($596, $760)</td>
<td>$44 ($38, $49)</td>
<td>2.77</td>
</tr>
<tr>
<td>White</td>
<td>$6686 ($6228, $7145)</td>
<td>$36 ($34, $39)</td>
<td>2.34</td>
</tr>
<tr>
<td>Male</td>
<td>$3208 ($2926, $3490)</td>
<td>$36 ($33, $39)</td>
<td>2.53</td>
</tr>
<tr>
<td>Female</td>
<td>$3479 ($3167, $3792)</td>
<td>$37 ($34, $40)</td>
<td>2.19</td>
</tr>
<tr>
<td>Hispanic</td>
<td>$556 ($462, $649)</td>
<td>$30 ($25, $35)</td>
<td>3.33</td>
</tr>
<tr>
<td>Male</td>
<td>$264 ($197, $330)</td>
<td>$28 ($21, $36)</td>
<td>3.51</td>
</tr>
<tr>
<td>Female</td>
<td>$292 ($233, $351)</td>
<td>$31 ($25, $38)</td>
<td>3.12</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age, y</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>≤ 17</td>
<td>$2226 ($2042, $2400)</td>
<td>$35 ($32, $38)</td>
<td>4.56</td>
</tr>
<tr>
<td>18–45</td>
<td>$3523 ($3585, $4263)</td>
<td>$37 ($34, $41)</td>
<td>3.77</td>
</tr>
<tr>
<td>46–64</td>
<td>$1490 ($1244, $1753)</td>
<td>$36 ($30, $42)</td>
<td>1.72</td>
</tr>
<tr>
<td>≥ 65</td>
<td>$1207 ($1069, $1345)</td>
<td>$43 ($38, $48)</td>
<td>1.07</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Incomeb</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor</td>
<td>$1583 ($1400, $1767)</td>
<td>$51 ($45, $57)</td>
<td>3.02</td>
</tr>
<tr>
<td>Near-poor</td>
<td>$686 ($453, $865)</td>
<td>$61 ($42, $79)</td>
<td>3.18</td>
</tr>
<tr>
<td>Low-income</td>
<td>$1372 ($1223, $1523)</td>
<td>$41 ($37, $46)</td>
<td>2.90</td>
</tr>
<tr>
<td>Middle-income</td>
<td>$2792 ($2543, $3004)</td>
<td>$33 ($30, $36)</td>
<td>2.40</td>
</tr>
<tr>
<td>High-income</td>
<td>$2441 ($2208, $2674)</td>
<td>$31 ($28, $34)</td>
<td>2.14</td>
</tr>
<tr>
<td>Total</td>
<td>$8855 ($8471, $9118)</td>
<td>$37 ($35, $39)</td>
<td>2.40</td>
</tr>
</tbody>
</table>

Note: CI = confidence interval.
aFigures for Asians and Pacific Islanders, Native Americans, and Alaskan Natives are omitted because too few individuals from these groups were included in the National Medical Expenditure Survey (NMES) sample.
bPoor = below federal poverty level; near-poor = 100–124% of federal poverty level; low-income = 125–199% of federal poverty level; middle-income = 200–399% of federal poverty level; high-income = 400% of federal poverty level.

high-income (400% of poverty level or higher).

The NMES determined the cost of care from the provider survey and the sources of payment from the household survey. The NMES defines free care as charges billed to patients that are neither covered by any third-party payer nor paid by the patient or family. Discounts offered to Medicare, Medicaid, and many HMOs are not classified as free care.

We calculated figures for personal health care expenditures by summing the costs of all medical care received by noninstitutionalized civilians, regardless of the source of payment. We divided outpatient spending into "ED costs" (which included the cost of laboratory and other services provided during an ED visit) and "all other outpatient costs." The latter category included spending on prescribed medicines, home health, medical equipment, dental visits, office visits, and hospital outpatient (except ED) visits. We used the National Center for Health Statistics' figure for total national health spending, which includes spending for public health activities, research, construction, the military, and other items not encompassed in our personal health spending figure.

The NMES gathered information on insurance status at each round of interviews. We assumed a patient’s insurance status at the time of an ED visit (or hospital stay) to be his or her insurance status at the proximate NMES interview, and we excluded from our insurance status analysis the less than 0.05% of persons who failed to report that variable. To analyze inpatient costs associated with ED visits, we identified all visits that respondents reported led to hospitalization and linked the ED visit to a hospital stay commencing within 3 days.

We used SAS-PC statistical software and the SUDAAN program, which corrects for the NMES' complex sample design in calculating confidence intervals.

Results

In 1987 ED expenditures totaled $8.9 billion (90% confidence interval [CI] = $8.5 billion, $9.1 billion)—$37 per capita (90% CI = $35, $39), 2.4% of personal health expenditures, and 1.9% of national health expenditures (Table 1).

Private insurance paid 42% of ED costs, Medicaid 13%, Medicare 9%, and other third parties (e.g., CHAMPUS [the Civilian Health and Medical Program of the Uniformed Services], the Department of Veterans Affairs, workers' compensation) 15%. Patients paid 19% of ED costs out of pocket. Free care totaled $187 million (90% CI = $146 million, $230 million), only 2% of ED costs.

The insured accounted for 86% of the population and 88% of ED spending ($7.7 billion [90% CI = $7.4 billion, $8.1 billion], vs $1.1 billion [90% CI = $1.0 billion, $1.2 billion] for the uninsured). Per capita ED expenditures were similar for the uninsured and insured, but accounted for nearly twice as high a proportion of the uninsured's total personal health expenditures (Table 1). The uninsured paid more of their ED costs out of pocket than did the insured (47% vs 15%). Government programs (e.g.,
TABLE 2—US Per Capita Personal Health Expenditures among Race and Gender Groups, by Type of Service:
Data from the 1987 NMES

<table>
<thead>
<tr>
<th>Race/Gender</th>
<th>Per Capita Total (90% CI)</th>
<th>Hospital Inpatient (% of Per Capita Total) (90% CI)</th>
<th>Outpatient Excluding Emergency Department (% of Per Capita Total) (90% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>$1483 ($1354, $1613)</td>
<td>$942 (63.5) ($847, $1038)</td>
<td>$494 (33.3) ($428, $560)</td>
</tr>
<tr>
<td>Male</td>
<td>$1364 ($1154, $1573)</td>
<td>$855 (62.7) ($689, $1012)</td>
<td>$458 (33.6) ($340, $577)</td>
</tr>
<tr>
<td>Female</td>
<td>$1587 ($1424, $1750)</td>
<td>$1018 (64.1) ($869, $1167)</td>
<td>$525 (33.1) ($482, $569)</td>
</tr>
<tr>
<td>White</td>
<td>$1558 ($1486, $1630)</td>
<td>$825 (53.0) ($763, $887)</td>
<td>$697 (44.7) ($677, $717)</td>
</tr>
<tr>
<td>Male</td>
<td>$1422 ($1310, $1535)</td>
<td>$774 (54.4) ($673, $875)</td>
<td>$612 (43.0) ($583, $641)</td>
</tr>
<tr>
<td>Female</td>
<td>$1686 ($1608, $1765)</td>
<td>$873 (51.2) ($805, $940)</td>
<td>$777 (46.1) ($753, $801)</td>
</tr>
<tr>
<td>Hispanic</td>
<td>$896 ($798, $993)</td>
<td>$483 (54.0) ($402, $564)</td>
<td>$382 (42.6) ($342, $423)</td>
</tr>
<tr>
<td>Male</td>
<td>$797 ($635, $959)</td>
<td>$431 (54.1) ($293, $568)</td>
<td>$338 (42.4) ($276, $400)</td>
</tr>
<tr>
<td>Female</td>
<td>$994 ($879, $1109)</td>
<td>$536 (53.9) ($437, $635)</td>
<td>$427 (43.0) ($384, $470)</td>
</tr>
<tr>
<td>Total</td>
<td>$1474 ($1410, $1539)</td>
<td>$800 (54.3) ($746, $854)</td>
<td>$637 (43.2) ($618, $656)</td>
</tr>
</tbody>
</table>

CHAMPUS, state and municipal funds) covered 21% of ED costs for the uninsured, other third parties (e.g., workers' compensation, auto and other insurance) covered 21%, and free care accounted for 10%. For the insured, private insurance covered 47%, Medicare 10%, Medicaid 14%, other government programs 7%, free care 1%, and other sources 6%.

Whites accounted for 75% of total ED expenditures, Blacks for 16%, Hispanics for 6%, and others for 3% (Table 1). Per capita ED expenditures were $47 (90% CI = $41, $53) for Blacks, $36 (90% CI = $33, $39) for Whites, and $30 (90% CI = $25, $35) for Hispanics. These expenditures represented a higher proportion of health spending for Blacks and Hispanics than for Whites. While Black males' average ED expenditures were higher than those of other groups, they represented only 8% of total ED costs and 0.2% of national health spending.

People aged 65 and older had the highest absolute ED expenditures ($43 per capita [90% CI = $38, $48]) but incurred only 1.1% of their medical care costs in EDs. Conversely, for those younger than age 18, ED costs averaged only $35 (90% CI = $32, $38) but represented 4.6% of their total medical care spending.

The poor and near-poor had higher per capita ED expenditures and spent a larger share of their total medical care dollars in EDs than did the more affluent.

Hospitalization followed 15.3% of all ED visits, including 10.2% of visits by the uninsured and 16.0% of visits by the insured. These emergency admissions accounted for 24% of all hospitalizations for both groups.

Inpatient costs for patients admitted through the ED totaled $49.0 billion (90% CI = $45.5 billion, $52.5 billion), $3.3 billion (90% CI = $2.5 billion, $4.1 billion) of this amount was for the uninsured. The uninsured paid $725 million (90% CI = $491 million, $959 million) of this amount out of pocket, hospitals gave $1.1 billion (90% CI = $0.5 billion, $1.7 billion) worth of free care (0.6% of total hospital costs), and third parties covered the rest.

Total inpatient costs for uninsured patients (including both emergency and nonemergency hospitalizations) amounted to $12.8 billion (90% CI = $11.1 billion, $14.4 billion), 6.7% of inpatient costs; free inpatient care for the uninsured totaled $2.8 billion (90% CI = $1.9 billion, $3.6 billion). The average cost per admission for the uninsured was about one-fifth lower than that for the insured, whether or not the patient was admitted via the ED.

The per capita personal health care expenditure in 1987 for Whites was nearly twice that of Hispanics and 5% more than that of Blacks (Table 2). Per capita outpatient spending (excluding ED costs) for Whites was 42% higher than that for Blacks and 83% higher than that for Hispanics. Outpatient spending (excluding ED costs) as a proportion of personal health spending was markedly lower for Blacks (33%) than for Whites (45%) or Hispanics (43%).

Discussion

EDs account for less than 2% of national health spending, and the uninsured and insured use similar amounts of ED care. The false perception that ED overuse, particularly by the uninsured, is a major contributor to rising medical care costs has three questionable corollaries: (1) insuring the uninsured would generate large cost savings by decreasing ED use and emergency hospitalizations; (2) restricting access to EDs by requiring large copayments, prior approval, or both is a useful cost control strategy; and (3) high medical care costs result from patients' misbehavior and excessive demands for care.

The uninsured account for only 12% of ED costs (and 8% of ED admissions), and they pay 47% of ED costs themselves. Workers' compensation, auto insurance, and government funds pay much of the rest. Free ED care for the uninsured totaled only $114 million in 1987, with inpatient free care costs for ED admissions adding $1.1 billion. Hence, cost shifting from uninsured ED patients added less than 1% to the average hospital bill.

Our findings contradict the widespread impression that hospitals provide large amounts of uncompensated ED care to the uninsured. This impression may have arisen because many academic emergency physicians work at urban teaching hospitals that provide disproportionate shares of care for the uninsured and free ED care. Thus, previous research on this topic analyzed data from a handful of hospitals that apparently provide more free care than most.

The NMES data provide a more reliable national perspective.

We found that emergency admissions accounted for 24% of inpatient stays nationwide for both the insured and the uninsured. In contrast, in a study of five Massachusetts hospitals, 51% of all inpatients and 68% of uninsured inpatients
were admitted through the ED.\textsuperscript{13} Figures from California fell between the Massachusetts estimate and our national figures.\textsuperscript{14}

The misconception that high ED use causes high medical costs is part of a paradigm that identifies Americans' excessive use of care as the main cost driver. In this view, insurers must discourage patients from overusing care through copayments, deductibles, and so forth, and they should manage physicians' behavior to curtail their ordering and referrals. This strategy rests, in part, on findings from the Rand Health Insurance Experiment, in which 95\% copayments decreased total utilization and reduced ED costs by one third, from $32 to $22 per capita (1984 dollars).\textsuperscript{15} Medicaid managed care experiments have yielded similar results\textsuperscript{16}; large percentage reductions in ED use, but modest dollar savings.

Moreover, if nonurgent ED use were diverted to more appropriate settings, savings would likely be far smaller than these figures or other projections\textsuperscript{17} suggest. The $200 charge for ED care for a migraine seems impressively wasteful. For the insurer, care elsewhere is far cheaper. But for society as a whole, shifting the patient to a doctor's office or clinic might add primary care costs while subtracting little from ED expense.\textsuperscript{6} EDs have high fixed costs; they must be staffed 24 hours a day to treat real emergencies, and EDs that might otherwise be idle can often accommodate nonemergency visits without additional staff.\textsuperscript{6} Projected ED savings can materialize only if we shut many EDs, not if we run them half full. Interestingly, Canada's per capita ED costs\textsuperscript{18} are lower than ours despite Canada's threefold higher ED visit rate.\textsuperscript{18,19} Evidently factors other than volume can drive costs.

One policy variant blames minorities and the poor for the high health costs in the United States.\textsuperscript{20} Yet Blacks and Hispanics have lower per capita health expenditures than Whites, despite high rates of illness. Nor can substance abuse and violence explain our high costs relative to Canada. Both "external causes" of death (including violence) and the costliest addictions (alcohol and tobacco) are at least as common in Canada.\textsuperscript{21-23} In keeping with other estimates,\textsuperscript{24} we found that inpatient costs of trauma in the United States (excluding hip fracture and low back pain) were only 5\% of hospital costs. HIV-related costs, often perceived as an important factor in medical inflation, will consume only 1\% of US health care spending in 1995.\textsuperscript{25}

A recent study found 25\% fewer physician visits among patients who identified the ED as their routine source of care.\textsuperscript{26} Our data confirm that groups with reduced access to primary care—the poor, uninsured people, and Black men—are disproportionately dependent upon EDs\textsuperscript{13,14,26,27}; they spend at least as much on ED care as other groups but have markedly lower outpatient utilization. Of particular concern is the low outpatient use by Black males, whose life expectancy is shorter than that of any other demographic group. Constraints on ED use may worsen care for them and for other groups whose health status and access to care are already compromised.

Health insurance reform is just one step toward improving access to care and decreasing the need for ED visits. Nonfinancial barriers; the scarcity of primary care practitioners in inner cities and rural areas; the inability of low-wage workers to take time off work; real and perceived racial discrimination; psychiatric comorbidity; and language barriers all obstruct access to primary care, increasing reliance upon EDs.\textsuperscript{28-31}

Assignment of insurance status in the NMES is inexact because insurance coverage may have changed between the interview and the ED visit, an interval that averaged about 30 days. A few hospitals probably included ED charges with inpatient charges for patients admitted through the ED. But these visits should not greatly affect total ED costs, and they would, in any event, appear in our figures for ED-associated inpatient costs. The household survey--derived figures for free care surely include both over- and underestimate. But large errors that would substantially change our key findings are unlikely.

The 1987 NMES is more than 8 years old, but it has only recently been released and it provides the most up-to-date, comprehensive, and detailed data available on medical expenditures. While ED visits have increased, especially for Medicare and Medicaid patients, ED visits by the uninsured have increased more slowly.\textsuperscript{32}

"Nonurgent" ED visits symbolize our failure to provide accessible primary care to all. ED use for illness caused by drugs and violence identifies an equally serious policy failure. However, the problem is not the cost of ED care, but the lack of better alternatives: readily available personal physicians\textsuperscript{33-36} for those lacking access, and enhanced career and leisure opportunities and aspirations for persons afflicted by drug use and violence. A reduction in ED visits is worthwhile only if it is a bellwether of improved health care and social conditions. Restricting patients from using the ED will have little effect on health costs.\textsuperscript{30}

Acknowledgments
This work was supported by a health professional training grant from the National Institutes of Health and by grant R33:00334-00 from the Pew Charitable Trust.

References
Undocumented Immigrants in the United States: U.S. Health Policy and Access to Care

By Michael K. Gusmano

Access to health care for undocumented immigrants in the U.S. is shaped by several policies and programs at the federal and state level. This issue brief provides an overview of key federal and state policies.

Are undocumented immigrants eligible for public insurance programs?

With the exception of emergency medical care, undocumented immigrants are not eligible for federally funded public health insurance programs, including Medicare, Medicaid and the Child Health Insurance Program (CHIP). Medicare is a social insurance program that provides health insurance to people age 65 and over, as well as people with permanent disabilities and end-stage renal disease. Medicaid is a means-tested social welfare program that provides health insurance to certain categories of poor people. CHIP, created in 1997, is a block grant program to expand coverage to children in families with incomes that exceed Medicaid eligibility. There is no organized, national program to provide health care for undocumented children. U.S.-born children in mixed-status families may be eligible for Medicaid or CHIP if they qualify on the basis of income and age.

Although federal funds may not be used to provide non-emergency health care to undocumented immigrants, some states and local governments use their own funds to offer coverage to undocumented children. For example, the Healthy Kids program in San Francisco covers uninsured children under the age of 19, including undocumented children. Similarly, the All Kids program Illinois covers all children under the age of 19 who meet program income requirements, regardless of immigration status.

PRUCOL (Permanent Residence Under Color of Law) is a public benefits eligibility category that refers to individuals who are in the U.S. with the knowledge of immigration services and are not likely to be deported. Before the adoption of the Personal Responsibility and Work Opportunity Reconciliation Act of 1996, people with PRUCOL status were eligible for Medicaid, but PRWORA eliminated their eligibility with the exception of emergency services. In New York, the State Court of Appeals (Aliessa et al. v. Novello) concluded that denying access to Medicaid violated the equal protection clauses of the New York and U.S. constitutions. As a result, New York provides Medicaid to this population using state funds only.

In about half of the U.S. states, immigrant children under the age of 21 and pregnant woman who have been granted deferred action on their immigration status are allowed to apply for Medicaid and the CHIP or enroll in their state's high risk insurance pool. An exception to this, however, are the so-called “dreamers” – the estimated 1.7 million undocumented teenagers and young adults granted deferred action by the Obama Administration on June 15, 2012. President Obama announced that undocumented immigrants who were brought to the U.S. before they turned 16 and are younger than 30, have been in the country for at least five continuous years, have no criminal history, graduated from a U.S. high school or earned their GED, or honorably discharged from the military will be immune from deportation and can apply for a work permit that will be good for two years with no limits on renewal. On August 28, 2012, the Obama Administration announced that the young people affected by this directive would not meet the definition of being "lawfully present" and would therefore be ineligible for Medicaid, the CHIP and the insurance benefits of the ACA.

How is emergency medical care available to undocumented immigrants?

In 1986 the Congress enacted the Emergency Medical Treatment and Active Labor Act (EMTALA) as part of the Consolidated Omnibus Budget Reconciliation Act of 1985 (COBRA) (Pub. L. 99–272). The law was designed to provide patients with access to emergency medical care and to prevent hospitals from “dumping” unstable patients that could not afford to pay for their care.” The law defines an emergency medical condition as a “medical condition manifesting itself by acute symptoms of sufficient severity such that the absence of immediate medical attention could reasonably be expected to result in – (i) [p]lacing the health of the individual … in serious jeopardy; (ii) [s]erious impairment to bodily functions; or (iii) [s]erious dysfunction of any bodily organ part[.]” It requires hospitals covered by the law to provide patients with an emergency medical condition with “an appropriate medical screening examination within the capability of the hospital’s emergency department, including ancillary services routinely available to the emergency department, to determine whether or not an emergency medical condition (EMC) exists.” (42 C.F.R 489.24(a)(1)(i)). The medical screening examination “must be conducted by an individual(s) who is determined qualified by hospital bylaws or rules and regulations” (42 C.F.R. § 489.24(a) (1)(i)).

Although the law refers specifically to hospitals with an ED, the guidelines from the federal government have applied...
EMTALA requirements to all facilities that participate in the Medicare program and offer emergency services. Met, while EMTALA requires covered hospitals to stabilize patients with emergency medical conditions, it does not require these facilities to provide additional treatment. There is a legal dispute over whether the stabilization requirement in EMTALA continues to apply if a patient has been admitted to the hospital. Decisions by the Fourth, Ninth and Eleventh Circuit Courts held that hospitals have no stabilization duties once patients are admitted, but the Sixth Circuit held the opposite.

In addition to EMTALA, it is also possible for undocumented immigrants to qualify for Medicaid coverage for emergency care. The definition of emergency care and the scope of services available through the Medicaid programs vary by state. For example, in New York State Medicaid for Emergency Care may be used to provide chemotherapy and radiation therapy to undocumented patients with cancer. In New York State, California, and North Carolina, it may be used to provide outpatient dialysis to undocumented patients.

Do undocumented immigrants have access to care through the health care safety net?

To care for the lower income residents, including undocumented immigrants, the U.S. relies on a patchwork “system” of safety-net providers, including public and not-for-profit hospitals, federally qualified community health centers (FQHCs), and migrant health centers. Since the Omnibus Budget Reconciliation Act of 1981, a hospital recognized as “disproportionate share hospital” (DSH) with respect to the percentages of low-income and uninsured patients it treats receives additional payments from Medicaid to support uncompensated care. Congress also required Medicare to allocate DSH funds to hospitals. The DSH programs fund hospital care for uninsured patients. Together, the Medicare and Medicaid DSH programs provide more than $20 billion to qualified hospitals annually, but these programs are scheduled to be reduced significantly under health care reform.

Federally Qualified Health Centers (FQHCs) and Migrant Health Centers are not-for-profit organizations funded by the
federal Health Resources and Services Administration (HRSA). Both offer comprehensive primary care to vulnerable populations that include Medicaid patients, uninsured patients, and patients in underserved urban, suburban, and rural areas. They provide care regardless of ability to pay, insurance status or immigration status. Both are required to have a board of directors with a majority (at least 51%) of the members from the community served by the center. In addition, both types of health centers are required to use a sliding fee scale. The main difference between them is that migrant health centers are only allowed to serve migrant and seasonal farm workers and their families. 

Federal support for FQHCs increased significantly under the George W. Bush administration and they have received continued support from the Obama administration. Between 1996 and 2010, direct federal funding for FQHCs increased from $750 million to $2.2 billion. As of 2010, there were 1,214 FQHCs operating more than 8,000 service sites. In addition, there were 159 federally funded migrant health center sites, operating more than 700 service sites. 

How will the Patient Protection and Affordable Care Act influence access to health care for undocumented immigrants?

The PPACA does not provide undocumented immigrants with eligibility for public insurance programs. Because undocumented immigrants are not regarded as “qualified individuals” under the law, it also does not allow undocumented immigrants to purchase health insurance through the new state health exchanges even if they are able to do so with their own money. 

Section 1312 of the Act states, “If an individual is not, or is not reasonably expected to be for the entire period for which enrollment is sought, a citizen or national of the United States or an alien lawfully present in the United States, the individual shall not be treated as a qualified individual and may not be covered under a qualified health plan in the individual market that is offered through an Exchange.”

Despite these restrictions, the law does include additional funding for the health care safety-net, including an $11 billion increase for FQHCs and the law’s expansion of the Medicaid program may provide additional revenue to many FQHCs and other safety-net providers. Yet, the PPACA also calls for an $18 billion dollar reduction in Medicaid DSH payments and a $22 billion reduction in Medicare DSH payments through 2020. The DSH cuts are based on the assumption that hospitals will not need to provide as much charity care once the health reform is implemented. Because undocumented immigrants will not receive public or private insurance coverage under health reform, they are likely to represent a larger percentage of the nation’s uninsured population. This raises important question about future political support for the health care safety-net.

References

10. 42 U.S.C. § 1395dd
17. Some of the migrant health centers are operated by state and local health departments.
* According to the Health Resources and Services Administration, “Principal employment for both migrant and seasonal workers must be in agriculture (http://bphc.hrsa.gov/about/specialpopulations/; accessed on March 15, 2012)
22. § 1312 (f) (3).
Immigrants Contributed An Estimated $115.2 Billion More To The Medicare Trust Fund Than They Took Out In 2002–09

ABSTRACT Many immigrants in the United States are working-age taxpayers; few are elderly beneficiaries of Medicare. This demographic profile suggests that immigrants may be disproportionately subsidizing the Medicare Trust Fund, which supports payments to hospitals and institutions under Medicare Part A. For immigrants and others, we tabulated Trust Fund contributions and withdrawals (that is, Trust Fund expenditures on their behalf) using multiple years of data from the Current Population Survey and the Medical Expenditure Panel Survey. In 2009 immigrants made 14.7 percent of Trust Fund contributions but accounted for only 7.9 percent of its expenditures—a net surplus of $13.8 billion. In contrast, US-born people generated a $30.9 billion deficit. Immigrants generated surpluses of $11.1–$17.2 billion per year between 2002 and 2009, resulting in a cumulative surplus of $115.2 billion. Most of the surplus from immigrants was contributed by noncitizens and was a result of the high proportion of working-age taxpayers in this group. Policies that restrict immigration may deplete Medicare’s financial resources.

Politicians and others are concerned that Medicare might not be sustainable, given current projections of health care spending growth, the surge in enrollment driven by the aging baby-boom generation, and the diminished size of the working-age population paying into the program through payroll taxes. The role that immigrants play in funding Medicare and their use of the program is not well understood. Because Medicare accounts for 21 percent of all annual US health care expenditures, knowing more precisely how immigrants factor into Medicare revenues and expenditures is important to ongoing policy discussions.

Medicare is financed through general revenues, payroll taxes, beneficiary premiums, and other sources, including taxes on Social Security benefits and payments from states. Medicare has two trust funds, the Hospital Insurance Trust Fund and the Supplementary Medical Insurance Trust Fund. The Hospital Insurance (HI) Trust Fund primarily finances inpatient care through Medicare Part A; it receives most of its income from payroll taxes and interest on past surpluses generated from those taxes. The Supplementary Medical Insurance (SMI) Trust Fund primarily pays for Medicare Part B, which covers physician services (both inpatient and outpatient) and outpatient care. Despite its name, the SMI Trust Fund is not a trust fund in the usual sense of the term; it is fully funded annually by enrollee premiums and yearly congressional appropriations from general revenues.

The most recent annual report from the Medicare Board of Trustees projected that the HI Trust Fund will be exhausted in 2024. At that point, revenues and assets will not be sufficient to cover the full costs of the Medicare program. Studies have found that immigrants use less
health care than US-born individuals,\textsuperscript{3,4} even in some public programs.\textsuperscript{4,5} However, because previous studies have not tabulated immigrants’ contributions to health care funding, concerns remain that immigrants may be a financial drain on the health care system.

We used nationally representative data on Medicare spending, income, and taxation to determine HI Trust Fund contributions and expenditures attributable to the US-born, immigrants, and noncitizen immigrants. We then calculated the net trust fund surpluses or deficits attributable to each group.

**Study Data And Methods**

**DATA SOURCES** We determined HI Trust Fund contributions from the March supplements to the Current Population Survey (CPS) for 2003–10 (the 2010 survey included 209,802 respondents). The CPS, conducted jointly by the Census Bureau and the Bureau of Labor Statistics, provides nationally representative data for the civilian noninstitutionalized population.\textsuperscript{6} Each year’s survey includes questions on personal income for the previous calendar year, as well as on place of birth and citizenship status.

We determined Medicare expenditures using the 2002–09 Medical Expenditure Panel Surveys (MEPS) conducted by the Agency for Healthcare Research and Quality (our 2009 sample included 36,333 respondents for whom we could identify nativity status). This survey provides detailed health care spending data for a representative sample of the civilian noninstitutionalized population and enables the identification of Medicare expenditures.

We linked data from MEPS to data from the National Health Interview Survey (from which the MEPS sample is drawn) to confirm nativity and citizen status. A detailed description of our definitions and data sources appears in the online Appendix.\textsuperscript{7}

**CONTRIBUTIONS, EXPENDITURES, SURPLUSES, AND DEFICITS** The CPS includes detailed individual-level income data, allowing us to calculate immigrants’ and others’ shares of 2009 tax contributions to the HI Trust Fund. Most contributions are from payroll taxes, but some are from income taxes on Social Security benefits collected from higher-income beneficiaries. The Appendix provides details of our HI Trust Fund contribution and expenditure calculations.\textsuperscript{7}

SMI Trust Fund spending is not paid for by the HI Trust Fund and hence was not used in our calculations of trust fund finances. However, we also report immigrants’ and others’ shares of most categories of this spending (see the Appendix for details).\textsuperscript{7}

To generate dollar estimates for HI Trust Fund contributions and expenditures, we multiplied immigrants’ and nonimmigrants’ shares of total contributions and expenditures by the Medicare Trustees’ estimates of total 2009 HI Trust Fund revenues and expenditures.\textsuperscript{8} We calculated each group’s total net surplus or deficit by subtracting its HI Trust Fund expenditures from its HI Trust Fund contributions. In calculating per capita figures, we used CPS data to estimate population figures. Finally, we repeated our analysis separately for citizen and noncitizen immigrants as well as for two age groups, people ages 18–64 and people ages 65 and older.

Although we report results principally for 2009, we replicated all analyses for each year in the period 2002–08.

**STATISTICAL ANALYSIS** We determined significance using chi-square tests for proportions and linear regressions for dollar estimates (including time trends). As explained in the Appendix,\textsuperscript{7} we performed sensitivity analyses employing alternative regression modeling strategies that might be appropriate for highly skewed data such as health expenditures. These yielded virtually identical results. The Institutional Review Board of Cambridge Health Alliance exempted this study from review.

**LIMITATIONS** Several limitations of our study should be noted. Our data may undercount noncitizens’ surplus since undocumented immigrants may avoid government surveys such as the Current Population Survey. The impact of this possible undercount on our estimate of payroll tax contributions is hard to quantify. However, the Social Security Administration’s Office of the Chief Actuary estimated that undocumented immigrants contributed a net of $12 billion to the Social Security Retirement Trust Fund in 2007.\textsuperscript{9} Since about one-fifth of the federal payroll tax goes to Medicare and four-fifths to Social Security, the estimate suggests that undocumented immigrants’ net contribution to Medicare is about $2.5 billion. Although undocumented immigrants are probably also underrepresented in the MEPS data, this should have little impact on our findings since Medicare expenditures on their behalf are minimal.

We conservatively credited revenue from HI Trust Fund interest in proportion to past surpluses would raise our estimate of immigrants’ share of HI Trust Fund contributions.

Conversely, we assumed that other sources of HI Trust Fund revenues, such as general tax revenue and premiums, were proportional to revenue from payroll taxes. Although we have no
data on immigrants’ share of these revenue sources, they account for little of the trust fund’s income: Premium contributions account for only 1.3 percent and general tax revenues for just 1.0 percent. On the expenditure side, we made the intuitively reasonable but unproven assumption that immigrants’ share of skilled nursing facility and hospice expenditures, which are not included in the MEPS data, were proportional to their share of inpatient, home health, and Medicare Advantage expenditures.

**Study Results**

**Population** In 2009 immigrants constituted 13.6 percent of the US population, according to the CPS. As expected for two nationally representative samples, the CPS and MEPS samples had similar demographic characteristics, including age, sex, race or ethnicity, insurance, nativity, citizenship status, and number of years in the United States (Exhibit 1).

**Contributions, Expenditures, and Net Surplus or Deficit by Nativity Status** In 2009 immigrants contributed $33.1 billion to the HI Trust Fund, or 14.7 percent of all contributions, and were responsible for $19.3 billion of its expenditures, or 7.9 percent (Exhibit 2). Immigrants accounted for 4.8 percent of hospitalization expenditures; 14.2 percent of home health expenditures (a figure that is based on small numbers and should be interpreted cautiously); and 11.8 percent of trust fund expenditures on Medicare Advantage premiums. Among Medicare enrollees, average expenditures were $1,465 lower for immigrants ($3,923) than for the US-born ($5,388)—a difference that was of borderline significance ($p = 0.05$).

Immigrants generated a trust fund surplus of $13.8 billion in 2009. In contrast, the US-born generated a deficit of $30.9 billion. Noncitizen immigrants (about 7.1 percent of the US resident population) contributed a net surplus of $10.1 billion, or $466 per capita (Exhibit 3), accounting for most of the surplus from immigrants. When stratified by age group, per capita net contributions by US-born people of working age (ages 18–64) and retirement age (ages 65 and older) did not differ significantly from immigrants’ net contributions. For the younger

![EXHIBIT 1](image)

**Demographic Characteristics For 2010 Current Population Survey (CPS) And 2009 Medical Expenditure Panel Survey (MEPS) Respondents, By Nativity Status**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>CPS (N = 209,802)</th>
<th>MEPS (N = 36,333)</th>
</tr>
</thead>
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<tr>
<td></td>
<td>Foreign-born (n = 29,104)</td>
<td>US-born (n = 180,698)</td>
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<tr>
<td><strong>AGE (YEARS)</strong></td>
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<td></td>
</tr>
<tr>
<td>0–17</td>
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<td>27.3%****</td>
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<tr>
<td>18–39</td>
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</tr>
<tr>
<td>Male</td>
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<td>49.0**</td>
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<td>71.7****</td>
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<td>Black, non-Hispanic</td>
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<tr>
<td>Hispanic</td>
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</tr>
<tr>
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<td><strong>IMMIGRATION/CITIZENSHIP STATUS</strong></td>
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<tr>
<td>US citizen</td>
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</table>

**Source:** Authors’ analysis of data from the 2010 Current Population Survey and 2009 Medical Expenditure Panel Survey. **Notes:** Percentages were weighted to the US population. Significance is for comparisons between the US-born and immigrants. *Not applicable. **p < 0.05 ****p < 0.001
group, the per capita net contributions were $1,424 for the US-born and $1,332 for immigrants. For the older group, the figures in both cases were deficits rather than surpluses: $−3,333 for the US-born and $−2,099 for immigrants.

Immigrants accounted for 10.6 percent of SMI Trust Fund expenditures, including 11.3 percent of Medicare Advantage premiums, 14.2 percent of home health agency expenditures (an estimate based on small numbers), 10.8 percent of prescription drug expenditures, 6.8 percent of physician expenditures, and 7.8 percent of outpatient (including emergency department) expenditures. Per capita SMI Trust Fund expenditures for immigrants ($721) were $175 lower than for the US-born ($896)—a difference that was not significant ($p = 0.11). Noncitizen immigrants’ per capita SMI Trust Fund expenditures of $295 were $601 lower than those of the US-born ($p < 0.001). As noted above, we did not use these expenditures in our calculation of HI Trust Fund finances.

**Discussion**

Immigrants, particularly noncitizens, heavily subsidize Medicare. In 2009 immigrants contributed $13.8 billion more to the HI Trust Fund than it paid out on their behalf (Exhibit 4). Most of this surplus came from noncitizens. Between 2002 and 2009 immigrants’ cumulative surplus contributions totaled $115.2 billion.

Immigrants pay into the HI Trust Fund in several ways. Those with legal status contribute through payroll taxes under valid Social Security numbers. Undocumented immigrants often pay payroll taxes under Social Security numbers tied to invented names or belonging to someone else, because to comply with federal law employers must obtain a Social Security number from every employee. Less frequently, undocumented immigrants pay self-employment taxes (in lieu of payroll taxes) under individual tax identification numbers, which allows them to claim credit for their contributions should they eventually obtain legal status.

Immigrants generate a surplus for Medicare primarily because so many of them are working-age adults and the group has a high labor-force participation rate—a combination that generates large payroll tax payments. Our analysis of the 2010 CPS data showed that noncitizen immigrants were younger and more likely to be of working age than were citizen immigrants, which is not surprising given that it takes years to become a naturalized citizen. This partially explains noncitizen immigrants’ particularly large HI Trust Fund surpluses.

In 2009 the dependency ratio—the ratio of working-age to retirement-age people, or those ages 18–64 to older people—among immigrants was 6.5 to 1, compared to 4.7 to 1 for the US-born. Noncitizen immigrants had a particularly high dependency ratio, which helps explain their surplus contributions.
dependency ratio, 12.4 to 1, reflecting their relative youth. Because many noncitizens eventually become naturalized at older ages, this last estimate is biased upward. Although individual immigrants may have lower lifetime earnings than US-born people, depending on their age at arrival, the high proportion of working-age adult immigrants results in large excess payments to the HI Trust Fund.

The recent drop in Mexican immigration\(^{11}\) and the overall aging of the US population may eventually reduce immigrants’ dependency ratio, and hence their surplus contributions to Medicare. However, this source of surplus contributions seems likely to continue for some time. The dependency ratio among immigrants did not fall between 1995 and 2010, according to our analysis of CPS data; the large cohort of Mexican immigrants from the 1990s and 2000s will not reach retirement age for decades; immigration of mostly working-age individuals from Asia continues to grow\(^{12,13}\); and the Census Bureau projects that net immigration (both absolutely and as a share of the US population) will continue to increase for the next eighteen years and will be higher in 2060 than it is now\(^{14,15}\).

Several factors other than age likely play a role in immigrants’ Medicare surplus. First, some immigrants who are eligible for Medicare may not use it because they retire to their country of origin.\(^{16}\) Elderly immigrants may be ineligible for Medicare because they have not worked the required forty quarter-years in the United States,\(^{17}\) lack legal status, or—if they are legal residents—they do not meet the five-year (legal) residency requirement of the Personal Responsibility and Work Opportunity Reconciliation Act of 1996.

Immigrants also cost Medicare less—a consequence of both their lower rates of enrollment and their lower expenditures once enrolled. These lower expenditures may reflect the underrepresentation of immigrants among the “oldest old,” those ages eighty-five and older. Differences in health status per se probably don’t explain these findings: Although immigrants arrive in the United States healthier than the US-born,\(^{18}\) immigrants’ health advantage has eroded by age sixty-five.\(^{18,19}\)

However, poor access to care among elderly immigrants may play a role in their low use of Medicare.\(^{19}\) Previous studies have found that immigrants—especially noncitizens\(^{20}\)—use less health care than do the US-born.\(^{3,4,21}\) This disparity has remained largely unchanged over time\(^{1}\) and has been observed among the publicly insured, the privately insured, and the uninsured.\(^{3,5}\)

Our 2009 findings are not an anomaly. Immigrants provided surpluses to the HI Trust Fund in every year between 2002 and 2009 (Exhibit 4), and this surplus was relatively constant.

Our study is the first of which we are aware to quantify immigrants’ share of contributions, and therefore the net surplus or deficit provided by immigrants, to a US health care sector. The surplus, if any, that immigrants provide to the health care system as a whole—or to programs other than Medicare—is not known. Although most political discourse regarding immigrant health care financing has focused on uncompensated care, that care accounts for a far smaller proportion of national health care spending than Medicare does (2 percent versus 21 percent).\(^{1,22}\)

Immigrants may withdraw more resources than they contribute to some government services. However, our finding that immigrants heavily subsidize the HI Trust Fund should raise skepticism about the widespread assumption that immigrants consistently drain public resources.

**Conclusion**

Having ourselves witnessed immigrants dying needlessly because of lack of health care, we (and many of our colleagues) are motivated by the belief that all patients have a human right to

EXHIBIT 4

**Net Medicare Hospital Insurance Trust Fund Surplus Or Deficit Attributable To Immigrants, US-Born, And All US Residents, 2002–09**
But economic concerns—including the worry that immigrants are driving up US health care costs—have often dominated the debate over immigration. Our data offer a new perspective on these economic concerns.

Policies that reduce immigration would almost certainly weaken Medicare’s financial health, while an increasing flow of immigrants might bolster its sustainability. Because Social Security's eligibility criteria and payroll tax-based funding closely track those of Medicare, our findings support the argument that immigration helps sustain Social Security.

Providing a path to citizenship for currently undocumented immigrants would affect Medicare’s finances in multiple ways. It would likely increase payroll tax collections by reducing immigrants “off the books” employment and removing barriers that keep them out of higher-paying jobs. But in the long term it would probably increase the number of immigrants eligible for Medicare, and hence expenditures on their behalf.

However, the age structure of the immigrant population is far more important than either of these factors. Encouraging a steady flow of young immigrants would help offset the aging of the US population and the health care financing challenge that it presents. 

The authors report no conflicts of interest. All of them contributed substantially to the design of the study as well as to the manuscript revision. Leah Zallman was responsible for writing the manuscript and analyzing the data. Her work was supported by an Institutional National Research Service Award (No. T32HP12706) from the Health Resources and Services Administration for the Harvard Medical School Fellowship in General Medicine and Primary Care. The content is solely the authors’ responsibility and does not necessarily represent the official views of Harvard University or its affiliated academic health care centers, the National Center for Research Resources, or the National Institutes of Health. The authors thank Bruce Vladeck, senior adviser at Nexera, for his guidance in the study design and his review of the manuscript. Vladeck did not receive compensation for his contributions. [Published online May 29, 2013]

NOTES


7 To access the Appendix, click on the Appendix link in the box to the right of the article online.


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In this month’s Health Affairs, Leah Zallman and coauthors report on the impact of immigrants on Medicare’s Health Insurance Trust Fund.

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Part 4

Myths and facts

Myth 9:

People will overuse health care resources if there are no co-pays or deductibles.

Fact: Co-pays and deductibles are not necessary to control costs and reduce unnecessary care.

Cost-sharing: Effects on spending and outcomes

By Sarah Goodell, M.A.1 and Katherine Swartz, Ph.D.2
based on a research synthesis by Swartz

1 The Synthesis Project
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SUMMARY OF KEY FINDINGS

> Cost-sharing may not be an effective tool to reduce the rate of growth of health care costs. Most people are healthy and reductions in their service use likely would only modestly affect total spending.

> Patients do not accurately discriminate between essential and nonessential services when responding to changes in cost-sharing. Although patients reduced the inappropriate use of emergency department services when cost-sharing was increased, they also reduced the use of preventive care and essential drugs.

> Cost-sharing increases are associated with adverse outcomes for vulnerable populations. Elderly, chronically ill, and welfare patients had increased expenditures for emergency department visits and hospitalizations when cost-sharing for prescription drugs was increased.

Why is this issue important to policy-makers?

The recent passage of the Patient Protection and Affordable Care Act (PPACA) requires for the first time that almost all U.S. citizens have health insurance. Implementing the largest expansion of health insurance since Medicare is a major challenge; policy-makers are also facing the challenge of how to slow the rate of growth in health care costs. Cost-sharing — how medical costs are shared between insurers and patients — is an important part of both challenges.

This brief examines how cost-sharing affects the use of services, whether some patients are more sensitive to cost-sharing than others, and whether reduced use of services as a result of cost-sharing has an effect on health outcomes. All of these issues factor into whether and how cost-sharing could be used to reduce the rate of growth of health care spending.

What is the effect of cost-sharing on the distribution of health care expenditures?

The distribution of health spending in the United States is highly skewed with 5% of the population accounting for almost half of all expenditures (Figure 1). The skewed distribution results from a relatively small percentage of people having serious medical conditions with high expenditures while the majority is relatively healthy with few or no medical expenses in a given year.

Figure 1: Concentration of Health Care Spending in the U.S. Population, 2007

Note: Dollar amounts in parenthesis are the annual expenses per person in each percentile. Population is the civilian noninstitutionalized population, including those without any health care spending. Health care spending is total payments from all sources (including direct payments from individuals, private insurance, Medicare, Medicaid, and miscellaneous other sources) to hospitals, physicians, other providers (including dental care), and pharmacies; health insurance premiums are not included.

Source: Adapted from the Kaiser Family Foundation (Reference 1)

a Public Law 111–148
Cost-sharing: Effects on spending and outcomes

It is not clear how the distribution of health spending will be affected by changes in cost-sharing. Speculation rests on the responsiveness of two factors: patient-initiated care and care delivered once the patient is in a medical setting.

**Reductions in patient-initiated care in response to cost-sharing are likely to come from the half of the population with low medical expenses.** If this is the case, increased cost-sharing may result in a more skewed distribution of health care spending.

Once a patient seeks medical attention, the intensity of services provided largely is driven by the provider, not the patient (Reference 2). The HIE (see sidebar) found that once a medical visit was initiated by the patient, utilization did not differ based on the patient’s level of cost-sharing. For the sickest population, those with more frequent contacts with medical providers, a change in cost-sharing may shift the financial burden from insurers and public payers to patients.

**Could increased cost-sharing slow the rate of growth of health care spending?**

Increased cost-sharing has the potential to slow the growth of health spending if: there is a reduction in use of low-value or medically unnecessary care; any utilization reduction is not offset by the use of more expensive services; and reductions in service use do not result in adverse outcomes that may be more expensive to treat.

Patients are not able to discern between appropriate and inappropriate care in response to increased cost-sharing. Evidence from the HIE indicates patients reduced appropriate care as well as medically unnecessary care in response to cost-sharing (Reference 2). More recent studies involving the use of prescription drugs found patients reduced their use of both essential and nonessential drugs in response to increased cost-sharing, although the reduction for nonessential drugs was generally greater (Reference 3).

**For vulnerable populations, increased cost-sharing may shift the types of services used rather than reduce overall health expenditures.** Two studies of programs for low-income populations found that increased cost-sharing did not result in program savings either because the subsequent mix of services used was more expensive or because there was an increase in adverse events, including hospitalizations (Reference 4).

Increases in cost-sharing for the elderly may result in higher Medicare program costs. Chandra, et al. studied the effects of increased cost-sharing in an employer-sponsored Medicare supplemental plan (Reference 5). They found the reduction in physician visits and prescription drugs was associated with higher Medicare costs due to an increase in hospitalizations for chronically ill beneficiaries.
What are the effects of increased cost-sharing on health outcomes?

For the average person, increased cost-sharing may not adversely affect health outcomes (Reference 2). This finding from the HIE may have been one of the most surprising. Importantly, however, the HIE excluded people over age 62, who make up the largest share of the chronically ill and those most likely to have high medical expenses. In addition, all participants had an out-of-pocket maximum based on income which limited financial liability for high medical expenses.

For vulnerable populations, increased cost-sharing is associated with adverse health outcomes. The HIE found that low-income participants in poor health were more likely to experience adverse health outcomes than higher-income or healthy participants (Reference 2). More recent studies of elderly, chronically ill, and welfare beneficiaries found that cost-sharing for prescription drugs is associated with increased expenditures for emergency department services, hospitalizations and admissions to nursing homes (Reference 11).

How do responses to cost-sharing differ by socioeconomic factors and health status?

Low-income populations are likely to be disproportionately affected by increased cost-sharing. The same amount of cost-sharing represents a larger share of income for a poor person than a high-income person, creating the potential for a financial barrier to care. The HIE found poor people reduced outpatient care more than higher-income people and had larger reductions in the use of dental care and immunizations for children (Reference 2). A more recent study examined increases in prescription drug co-payments for privately insured patients and found individuals living in low-income areas were less likely to continue taking their medications than people in high-income areas (Reference 12).

Whether responses to cost-sharing differ by race and ethnicity is unknown. In studies looking at responses to cost-sharing by racial and ethnic minorities in the use of preventive services, it appears low income has a stronger association with the use of such services than race and ethnicity.

People in poor health respond differently to cost-sharing changes than healthy people (Reference 13). One study found retirees in poor health who had cost-sharing increases had larger reductions in spending on physician visits and prescription drugs than those in relatively good health (Reference 14). Those who were healthy reduced expenditures on physician office visits by 3% and by 8% on prescription drugs. In contrast, those who were chronically ill reduced the dollars spent on physician visits and prescription drugs by 15% and 27%, respectively. Significantly, however, the chronically ill used more inpatient hospital care after the cost-sharing increased. The result was a 122 percent increase in Medicare spending on the chronically ill retirees for Part A.

COST-SHARING AND TYPES OF SERVICES

Some types of medical services may be more sensitive to cost-sharing than others. Services for which increased cost-sharing significantly reduces utilization may be viewed by patients as optional or ones for which lower-cost substitutes are available.

Preventive services: Recent studies focusing on Pap tests, mammograms, and colorectal cancer screening found that cost-sharing reduces the use of preventive care (Reference 6).b

Emergency department (ED) visits: ED utilization was 10% to 15% lower in groups with higher co-payments compared with control groups (Reference 7). Most of the reduction was for visits classified as low or intermediate severity. The studies were of patients in integrated delivery systems who had alternatives to EDs so the results may not be generalizable.

Mental health and substance abuse: Demand for mental health and substance abuse treatment is quite sensitive to patient cost-sharing. Increased cost-sharing reduced the likelihood of follow-up substance abuse treatment and for schizophrenic patients resulted in higher ED use and inpatient care (Reference 8).

Prescription drugs: Increased cost-sharing of about 10% is associated with a decline of 1% to 6% in spending on prescription drugs (Reference 9). There is mixed evidence as to whether people shift to generics or other less expensive substitutes (Reference 10).

b PPACA eliminates or provides incentives to eliminate cost-sharing for many preventive services.
Recent studies of patient cost-sharing confirm the primary conclusion of the HIE — demand for most health care services is price sensitive. When people have to pay more, they reduce their use of health care. The HIE’s exclusion of the elderly, the increase in the prevalence of chronic conditions, and changes to medical care and insurance design since the 1970s, however, make it important to re-examine the role of cost-sharing. Findings from more recent research highlight important implications for policy-makers, including:

> **Patient cost-sharing is not necessarily an effective mechanism for significantly slowing health care spending.** Most people are healthy and cost-sharing would only modestly affect their health care spending. People who are very sick or who have serious chronic health conditions are typically deferring to their physicians rather than making choices about medical care based on cost-sharing. Moreover, by itself, cost-sharing is highly unlikely to slow the growth in spending unless the expected increases in the costs of appropriate care for the very sick also slow.

> **Cost-sharing is not well-targeted on low-cost services.** Patient cost-sharing generally has been organized in broad categories (e.g., outpatient care, inpatient care, emergency department care). These broad categorizations do not help people distinguish between essential and nonessential services. Comparative effectiveness research could help insurers and government programs better target cost-sharing to improve value.

> **Caution should be used when increasing cost-sharing for low-income populations or the chronically ill.** Not only are low-income populations disproportionately affected by increased cost-sharing, but they also are more price sensitive than other income groups. Unless the cost-sharing increases are concentrated on services that are ineffective or unnecessary, low-income groups may avoid necessary medical care as a result. Increased cost-sharing for people with chronic conditions may result in higher expenditures for hospitalizations and other adverse outcomes if necessary care is reduced.

**THE SYNTHESIS PROJECT** (Synthesis) is an initiative of the Robert Wood Johnson Foundation to produce relevant, concise, and thought-provoking briefs and reports on today’s important health policy issues.

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