

The U.S. Health Care Crisis

**HEALTH CARE ADMINISTRATION IN THE
UNITED STATES AND CANADA:
MICROMANAGEMENT, MACRO COSTS**

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A decade ago, U.S. health administration costs greatly exceeded Canada's. Have the computerization of billing and the adoption of a more business-like approach to care cut administrative costs? For the United States and Canada, the authors calculated the 1999 administrative costs of health insurers, employers' health benefit programs, hospitals, practitioners' offices, nursing homes, and home care agencies; they analyzed published data, surveys of physicians, employment data, and detailed cost reports filed by hospitals, nursing homes, and home care agencies; they used census surveys to explore time trends in administrative employment in health care settings. Health administration costs totaled at least \$294.3 billion, \$1,059 per capita, in the United States vs. \$9.4 billion, \$307 per capita, in Canada. After exclusions, health administration accounted for 31.0 percent of U.S. health expenditures vs. 16.7 percent of Canadian. Canada's national health insurance program had an overhead of 1.3 percent, but overhead among Canada's private insurers was higher than in the U.S.: 13.2 vs. 11.7 percent. Providers' administrative costs were far lower in Canada. Between 1969 and 1999 administrative workers' share of the U.S. health labor force grew from 18.2 to 27.3 percent; in Canada it grew from 16.0 percent in 1971 to 19.1 percent in 1996. Reducing U.S. administrative costs to Canadian levels would save at least \$209 billion annually, enough to fund universal coverage.

A decade ago we estimated that in 1987 Americans spent about \$450 per capita on health care administration; 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, organizational and technological changes have revolutionized health administration. Market pressures have forced health institutions to

adopt a more business-like approach. Hospital and HMO mergers have centralized “back office” tasks. Computerization of billing, scheduling, purchasing, and so forth, has become the norm; e-mail has displaced snail mail; and the Internet now facilitates instantaneous information exchange, allowing insurers to offer on-line eligibility verification, utilization review, and payment approval (4). By 1999 nearly two-thirds of U.S. health insurance claims were filed electronically, including 84 percent of Medicare claims (5). Canada’s national health insurance system has also experienced technological change and turmoil—strident debates over cost controls, the availability of technology, hospital closures, and the appropriate role of investor-owned providers. But its organizational structure has changed little.

Has market discipline and the automation of billing and clerical tasks in the United States trimmed administrative costs? Has Canada’s administrative parsimony persisted?

MATERIALS AND METHODS

To estimate administrative costs we sought data on insurance overhead, employers’ costs to manage benefits, and administration in hospitals, practitioners’ offices, nursing homes, and home care. Our estimates use 1999 figures, the most recent year for which comprehensive data are available. Canadian figures were converted to U.S. dollars using GDP purchasing power parities (6). We used SAS for data analyses (7).

Insurance Overhead

We obtained figures for insurance overhead and government program administration from the Centers for Medicare and Medicaid Services (CMS) (8) and the Canadian Institute for Health Information (CIHI) (9).

Employers’ Costs to Manage Health Benefits

For the United States we used a published estimate of 1996 employer spending for health benefits consultants and internal administration related to health benefits (10, 11). We projected this figure to 1999 based on the growth in private employer health spending (12). No comparable figures are available for Canada. We assumed that employers’ internal administrative plus consultant costs (as a share of employer’s health spending; 13) are the same in Canada as in the United States.

Hospital Administration

For the United States we calculated administration’s share of hospital costs by analyzing data from fiscal year 1999 Cost Reports that 5,220 hospitals had

submitted to Medicare by September 30, 2001; we used methods previously described (14, 15). For Canada we and colleagues at CIHI analyzed 1999–2000 cost data for all Canadian hospitals except those in Quebec, using similar methods to those employed for the United States. Where questions arose about the comparability of expense categories, we obtained detailed descriptions of the Canadian categories from Canadian officials and consulted U.S. Medicare auditors to ascertain where such costs would be entered on Medicare Cost Reports. For both nations we multiplied administration's share of hospital spending by total hospital spending (8, 9).

Practitioners' Administrative Costs

We calculated U.S. physicians' administrative costs by summing the following:

- *Physicians' time.* We determined the proportion of physicians' work hours devoted to billing and administration from a national survey (16) and multiplied this proportion by physicians' income net of practice expenses (8).
- *Nonphysician clinical staff time.* We assumed that other clinical personnel in doctors' offices spent the same proportion of their time on administration as did physicians. We calculated the value of this time based on total physicians' revenue (8) and American Medical Association (AMA) survey data on doctors' payroll cost (17).
- *Clerical office staff time.* We attributed all of physicians' expenses for clerical staff to administration (8, 17).
- *Office rent and expenses.* While administrative and clerical workers accounted for 43.8 percent of the workforce in physicians' offices (based on our (DUH and SW) unpublished analysis of the March 2000 Current Population Survey (CPS)), we conservatively attributed only one-third of physicians' office rent and expenses (excluding medical machinery and supplies) (17) to administration/billing.
- *Other professional expenses.* Accounting, legal fees (excluding malpractice), costs for outside billing services, and so forth, are subsumed in "other professional expenses" (17), half of which we attributed to administration.

To estimate dentists' (and other nonphysician practitioners') administrative expenses, we analyzed March 2000 CPS data on administrative/clerical employment in practitioners' offices, using methods previously described (18). Administrative/clerical employees' share of office wages was 43 percent lower for dentists and 14 percent lower for other practitioners than for physicians. We assumed that administration's share of practitioner income mirrored these differences.

For Canada we summed the following:

- *Physicians' time.* We obtained figures from a Canadian Medical Association (CMA) survey on the proportion of physicians' time devoted to administration and practice management (19) and multiplied this proportion by physicians' income net of office expenses (9).
- *Nonphysician staff time.* We used figures from CMA surveys on physicians' expenditures for office staff (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 (18). As for the United States, we attributed all the administrative workers' share to administration, and assumed that non-physician clinical personnel spend the same proportion of their time on administration as do physicians.
- *Office rent and expenses.* We attributed one-third of physicians' office rent, lease, mortgage, and equipment costs (20, 21) to administration/billing.
- *Other professional expenses.* As for the United States, we attributed half of other professional expenses (20, 21) to administration.

To calculate the administrative expenses of Canadian nonphysician office-based practitioners, we used the same procedure as that employed for the United States, based on analysis of 1996 Canadian Census data.

Nursing Home Administration

No published nationwide data on U.S. nursing home administrative costs are available for 1999, and only Medicare-certified facilities (which are not representative of all homes) file Medicare cost reports. However, California collects cost data from all licensed homes. We analyzed 1999 data on 1,241 California nursing homes (22). We grouped expenditures into three broad categories: administrative, clinical, and mixed administrative and clinical. We used methods similar to those employed in our hospital analysis (14, 15) to allocate expenses from the "mixed" category between the "clinical" and "administrative" categories. To generate a national estimate, we multiplied administration's share of expenditures in California by total U.S. nursing home spending (8). For Canada we and colleagues at CIHI analyzed 1998–1999 data on administrative costs for Homes for the Aged (excluding Quebec) from Statistics Canada's Residential Care Facilities Survey, using methods comparable to those we employed for the United States. We multiplied the share spent for administration by total nursing home expenditures in Canada (9).

Home Care

For the United States we analyzed data from fiscal year 1999 Cost Reports that 6,633 home health care agencies had submitted to Medicare. We excluded

agencies reporting implausible costs, and then calculated the proportion of expenses classified as “administrative and general.” We multiplied the share spent for administration by total U.S. home care expenditures. For Canada, we obtained administrative cost data for Ontario; categories appeared comparable to those in the United States (23). We summed the administrative costs of Community Care Access Centres (24), which contract with home care providers; home care providers (25); and provincial government oversight of home care. We multiplied the proportion spent for administration by Canada-wide home care spending (26).

Total Administrative Costs

To calculate total administrative spending we summed the administrative costs detailed above. In analyzing administration’s share of health spending, we excluded from both the numerator and the denominator expenditure categories for which administrative cost data were unavailable: retail sales of drugs, medical equipment, and supplies; public health; construction; research; and “other,” a heterogeneous category that includes ambulances, in-plant services, and so forth. These excluded categories accounted for \$261.2 billion, 21.6 percent of U.S. health expenditures; and \$21.0 billion, 27.6 percent of Canadian health expenditures.

Time Trends Since 1969

Our 1999 analysis relied on several data sources not available for earlier years. To assess time trends, using previously described methods (18), we analyzed census data on employment in health care settings: the March CPS for every fifth year since 1969; 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 Medicare’s (3.6 percent) and Medicaid’s (6.8 percent). Overall, public and private insurance overhead consumed \$72.0 billion, 5.9 percent of total U.S. health spending; \$259 per capita. Overhead costs for Canada’s provincial insurance plans totaled \$311 million (1.3 percent) of the \$23.5 billion they spent for physician and hospital services. An additional \$17 million was spent to administer federal government health plans. Canadian private insurers’ overhead averaged 13.2 percent of the \$8,352 million spent for private coverage. Overall, insurance overhead accounted for 1.9 percent of Canadian health spending; \$47 per capita. (Table 1 lists per capita spending for this and other cost categories.)

Table 1

Costs of health care administration in the United States and Canada, 1999

Cost category	Spending per capita, U.S. \$	
	U.S.	Canada
Insurance administration	259	47
Employers' health benefits administration	57	8
Hospital administration	315	103
Nursing home administration	62	29
Practitioners' overhead/billing expense	324	107
Home care administration	42	13
Total	1,059	307

Employers' Costs to Manage Health Benefits

U.S. employers spent \$12.2 billion on internal administrative costs related to health benefits and an additional \$3.7 billion on health benefits consultants, a total of \$15.9 billion; \$57 per capita. Canadian employers spent \$3.6 billion for private health insurance and \$252 million to manage health benefits; \$8 per capita.

Hospital Administration

The average U.S. hospital devoted 24.3 percent of spending to administration. Larger hospitals had slightly lower administrative costs. Hospital administration consumed \$87.6 billion; \$315 per capita. Canadian hospital administration cost \$3.1 billion, 12.9 percent of hospital spending; \$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; \$62 per capita. Administration accounted for 12.2 percent of Canadian nursing home expenditures, \$882 million; \$29 per capita.

Practitioners' Offices

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

for clinical employees; the administrative portion (13.5 percent) of these employees' compensation was \$3.0 billion. Physicians' costs for clerical staff averaged 12.3 percent of physicians' gross income, \$33.1 billion. The one-third of physicians' office rent and expenses attributable to administration represented 4.6 percent of gross income, \$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, \$8.59 billion. In total, physicians' administrative work and costs amounted to \$72.6 billion, 26.9 percent of physicians' gross income; \$261 per capita. The administrative costs of dentists and of other nonphysician practitioners totaled \$8.6 billion and \$8.8 billion, respectively. Overall, U.S. practitioners' administrative costs amounted to \$89.9 billion; \$324 per capita.

Canadian physicians devoted 8.4 percent of professional time to practice management and administration, valued at \$592 million. They spent 6.1 percent of their gross incomes for clinical office staff. The administrative portion (8.4 percent) of these employees' compensation amounted to \$53 million. Physicians' costs for clerical staff averaged 6.9 percent of physicians' income, \$716 million. The one-third of physicians' office rent and expenses attributable to administration totaled \$193 million. Finally, the half of "other" professional expenses attributable to administration cost \$116 million. In total, physicians' administrative work and costs amounted to \$1,670 million, 16.1 percent of physicians' gross income; \$55 per capita. The administrative and billing costs of Canadian dentists and of other nonphysician practitioners totaled \$928 million and \$660 million, respectively. Overall, Canadian practitioners' administrative expenses totaled \$3,258 million; \$107 per capita.

Home Care Agencies

U.S. home care agencies devoted 35.0 percent of total expenditures to administration, \$11.6 billion; \$42 per capita. Administration accounted for 15.8 percent of Ontario's home care expenditures. Canada-wide, home care administration expenses totaled \$408 million; \$13 per capita.

Total Health Care Administration Costs

U.S. health care administration cost \$294.3 billion; \$1,059 per capita (Table 1). Canada's health care administration cost \$9.4 billion; \$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 U.S. health expenditures versus 16.7 percent in Canada.

Time Trends in Health Administrative Employment

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. This figure excludes the 926,000 individuals employed in life and health insurance firms, 724,000 in insurance brokerages or agencies, and personnel in consulting firms (27). The administrative/clerical share of the health care labor force has risen steadily from 18.2 percent in 1969 (Table 2). In Canada, administrative and clerical occupations accounted for 19.1 percent of the health labor force in 1996, versus 18.7 percent in 1986, and 16.0 percent in 1971. These figures exclude insurance personnel. While the United States employed 12 percent more health personnel per capita than Canada (1999 vs. 1996 data), administrative personnel accounted for three-quarters of the difference. Cutting the U.S. administrative workforce to Canadian levels (per capita) would eliminate 965,000 administrative positions in health settings and hundreds of thousands more in the insurance industry.

DISCUSSION

In 1999 administration consumed 31.0 percent of U.S. health spending, at least \$294.3 billion. Our data help explain why Canadians spend 40 percent less on health care, yet receive more hospital care and make more doctor's visits (28) and enjoy better access to care (29). Trimming U.S. administrative costs to Canadian levels would save at least \$209 billion annually, enough to cover the uninsured and improve coverage for the tens of millions who are currently underinsured.

Table 2

Administrative and clerical personnel
as a percentage of the health care
labor force, United States, 1969–1999

Year	Percent administrative/clerical ^a
1969	18.2
1974	21.2
1979	21.9
1984	23.9
1989	25.5
1994	25.7
1999	27.3

^aExcludes insurance industry personnel.

Most of our analysis rests on reliable data. While U.S. and Canadian hospitals, nursing homes, and home care agencies use different accounting categories, we took pains to ensure comparability. The U.S. hospital figure accords with findings from detailed studies of individual hospitals (30–33). The California data we used to estimate U.S. nursing homes' administrative costs yield a lower figure (19.2 percent of revenues) than a published national estimate (25.2 percent) for 1998 (34), hence our projection may be conservative. Our estimates of physicians' administrative costs rely on self-reports. However, census data on office employment confirm the U.S.-Canadian difference. U.S. physicians' reports also appear congruent with a decade-old time/motion study (30).

Our estimates understate health administration costs. They exclude hospital and nursing home advertising (which does not appear in cost reports) and patients' time spent on paperwork. These costs are surely lower in Canada than in the United States. Our figures also omit the administrative overhead of retail pharmacies (in the United States 54 percent of drug store employees are clerical or administrative, based on our unpublished analysis of the March 2000 CPS), drug firms, ambulance companies, and a few other health enterprises. Finally, we valued practitioners' administrative time using their net, rather than gross, hourly incomes. This incorporates the conservative assumption that were U.S. physicians to devote to patient care the 13.5 percent of their time now spent on paperwork, practice overhead would rise 13.5 percent. Using practitioners' gross incomes in our calculations—adopting the reasonable assumption that seeing 13.5 percent more patients would add little to practice overhead—would increase our estimate of total U.S. administrative costs to \$320.1 billion, and of potential savings to \$229 billion.

The employment figures used for our time-trend analysis have different gaps. They 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 (Table 3).

Why does U.S. health care administration cost so much, and why has administration's share risen despite health industry consolidation and the automation of transaction processing? The participation of private insurers raises administrative costs (35). The small private insurance sectors in Australia, Canada, Germany, and the Netherlands all have high overheads: 15.8 percent, 13.2 percent, 20.4 percent, and 10.4 percent, respectively (28). Functions essential to private insurance but absent in public programs—such as underwriting and marketing—account for about two-thirds of private insurers' overhead (36). Moreover, insurers have incentives to erect administrative hurdles—by complicating and stalling payment, insurers can hold premiums longer, thus boosting their interest income (37). Such hurdles also discourage some patients and providers from pursuing claims.

A fragmented payment structure is intrinsically more expensive than a single-payer system. For insurers, it means the duplication of claims-processing facilities

Table 3
 Number of enrollees and employees of selected major U.S. private health insurers and Canadian provincial health plans, 2001

Plan name	Enrollees ^a	Employees	Employees per 10,000 enrollees
U.S. plans			
Aetna	17,170,000	35,700	20.8
Anthem	7,883,000	14,800	18.8
Cigna	14,300,000	44,600	31.2
Humana	6,435,800	14,500	22.5
Mid Atlantic Medical Services	1,832,400	2,571	14.0
Oxford	1,490,600	3,400	22.8
Pacificare	3,388,100	8,200	24.2
United Health Group	16,540,000	30,000	18.1
WellPoint	10,146,945	13,900	13.7
Canadian plans			
Saskatchewan Health	1,021,288	145	1.4
Ontario Health Insurance Plan	11,742,672	1,433 ^b	1.2

Sources: Data from annual reports filed with the Securities and Exchange Commission (accessed July 25, 2003, www.sec.gov/edgar/searchedgar/companysearch.html); Government of Saskatchewan (Public Accounts 2000–01, Vol. 2, Regina, Sask., 2001, p. 96); and Government of Ontario (Public Accounts of Ontario 2000–01, Vol. 1, Ministry of Finance, Ottawa, 2001, pp. 4-179, 4-181.)

^aIncluding administrative-services-only contracts as well as Medicare, Medicaid, and commercial enrollees; excludes pharmacy benefit management, life, dental, other specialty, and nonhealth insurance products.

^bEstimate based on wage/salary expense and assumption that average wage is \$38,250.

and reduced insured-group size, which increases overhead (38, 39). Fragmentation also raises costs for providers, who deal with multitudes of insurance products—at least 755 in Seattle alone (40). This necessitates eligibility determination and keeping track of varying copayments, referral networks, approval requirements, and formularies. In contrast, Canadian physicians send virtually all bills to a single insurer using a simple billing form or computer program, and may refer patients to any colleague or hospital. The multiplicity of insurers also precludes paying hospitals on a lump sum or global-budgeted basis as in Canada. Global budgets eliminate most billing and simplify internal accounting, since costs and charges need not be attributed to individual patients and insurers.

Yet fragmentation per se cannot explain the sharp increase in U.S. administrative costs since 1969. This growth coincided with an industrial revolution in health care that made profitability the mandatory condition for survival (41),

shuttering institutions that failed to implement managerial control of clinical practice. Shaping practice from outside the examining room requires more detailed record-keeping and cost-tracking than are needed for mere patient care, as well as a large executive corps to oversee changes. New domains of decision-making have assumed critical importance in medical enterprises: the length of a hospital stay or office visit, the diagnostic code assigned to an episode of care, and the optimal prescribing pattern in view of shifting prices and rebates available from drug firms are some examples.

The new entrepreneurialism forced adoption of complex accounting practices that are standard in the business world. These practices embody the admonition “caveat emptor.” Each party to a commercial transaction maintains its own detailed records, not primarily for coordination but as evidence in case of disputes (42). Moreover, investors and regulators demand verification by independent auditors—“who are supposed to make a profession of honesty” (42)—generating a further set of records. Thus the commercial record replicates each clinical encounter in virtual form before, during, and after it takes place in physical form. The atmosphere of mutual obligation and shared mission that characterized medical practice at its best has become irrelevant, even a liability.

Insurers, investors, regulators, and many policy experts have viewed the rigorous inspection of care as the obvious answer to cost and quality problems (43–45). Yet, little evidence supports this view. HMOs with higher overhead deliver lower-quality care (46) without cost savings (47); investor-owned hospitals have higher administrative and total costs (15, 48–53) and poorer quality (52, 54) than nonprofits; and proprietary nursing homes spend similar amounts on administration (34) yet provide worse care than nonprofit facilities (55). Finally, many nations with smaller health care bureaucracies have enjoyed slower cost growth and better health outcomes than the United States.

The U.S. focus on micromanagement has obscured the fundamentally inefficient structure required to micromanage. Other oversight strategies forego external inspection of each detail of care, empowering those doing the work to devise improvements while holding them responsible for aggregate results. Global budgetary cost controls in Canada, CQI (continuous quality improvement; 56), and the oversight of academic research are examples of this alternative approach to accountability. In the United States, we have exempted administrative procedures from the evidence-based evaluation demand of clinical ones. Auditors have meticulously inspected each piece of medical terrain save that beneath their feet.

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