

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 health 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

¹ Elizabeth A. McGlynn et al., "The quality of health care delivered to adults in the United States," *New England Journal of Medicine* 2003;348:2635-2645, 2641.

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}

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).

³ Cathy Schoen et al., “Toward higher performance health system: Adults’ health care experiences in seven countries, 2007,” *Health Affairs Web Exclusives* 2007:W717-W734, Exhibit 2.

⁴ David Segal, “Managed care generates a paperwork explosion,” *Washington Post*, February 15, 1996, D9.

⁵ Bert McKasy, Minnesota Commissioner of Commerce, and Marlene E. Marschall, Commissioner of Health, *Study of Health Care Management Companies*, St. Paul, MN, March 1993.

The spread of managed care also set off a frenzy of mergers and consolidation within the insurance and medical sectors in the 1990s.⁷ 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

⁶ Jeffrey A. Alexander and Christy Harris Lemak, “The effects of managed care on administrative burden in outpatient substance abuse treatment facilities,” *Medical Care* 1997;35:1060-1068.

⁷ David Dranove et al., “Is managed care leading to consolidation in health-care markets?” *Health Services Research* 2002;37;573-594.

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.”⁸

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

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 percent⁹ (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

⁹ Rainu Kaushal et al., “The costs of a National Health Information Network,” *Annals of Internal Medicine* 2005;143:165-173.

¹⁰ “‘A deficiency of will and ambition’: A conversation with Donald Berwick,” *Health Affairs*, Web Exclusive, January-June 2005, W5-1-W5-9, 7. 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>, 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). 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 policyholder. 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)

(a) Robert Pear, "U.S. recommending strict new rules at nursing homes," *New York Times*, July 23, 2000, A1; Robert Pear, "Nine of ten nursing homes lack adequate staff, study finds," *New York Times*, February 18, 2002, <http://www.healthcoalition.ca/nyt.html>, accessed April 11, 2003. Problems created by staff shortages include preventable conditions such as severe bedsores, malnutrition, dehydration, abnormal weight loss, severe infections, and congestive heart failure. The report estimated that adequate staffing of nursing homes would require an 8 percent increase in total spending (or \$7.6 billion annually).

(b) Martin F. Shapiro et al., "Effects of cost-sharing on seeking care for serious and minor symptoms," *Annals of Internal Medicine* 1986;104:246-51.

(c) Robert Pear, "Few seek to treat mental disorders, a U.S. study says: Half of nation affected," *New York Times*, December 13, 1999, A1.

(d) Steven M. Asch et al., "Measuring underuse of necessary care among elderly Medicare beneficiaries using inpatient and outpatient claims," *Journal of the American Medical Association* 2000;284:2325-2333.

(e) David J. Hyman and Valory N. Pavlik, "Characteristics of patients with uncontrolled hypertension in the United States," *New England Journal of Medicine* 2001;345:479-486.

(f) Marianne Laouri et al., "Underuse of coronary angiography: Application of a clinical method," *International Journal For Quality In Health Care* 1997;9:15-22 (Schuster et al. included this study in their review); Pushkal P. Garg et al., "Understanding individual and small area variation in the underuse of coronary angiography following acute myocardial infarction," *Medical Care* 2002;40:614-626.

(g) Ronald Kessler et al., "The epidemiology of major depressive disorder: Results from the National Comorbidity Survey Replication," *Journal of the American Medical Association* 2003;290:3095-4105.

(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.

(i) Report by Oral Health America, described in "'Silent epidemic' continues: Poor oral health," *Minneapolis Star Tribune*, January 29, 2002, A3.

(j) American Diabetes Association, <http://www.diabetes.org/info/diabetesinfo.jsp>, accessed December 8, 2003.

(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).

(l) Jae Kennedy and Christopher Erb, "Prescription noncompliance due to cost among adults with disabilities in the United States," *American Journal of Public Health* 2002;92:1120-1124.

(m) Bradley C. Strunk and Peter J. Cunningham, *Treading Water: Americans' Access to Needed Medical Care, 1997-2001*, Center for Studying Health System Change, <http://www.hschange.com/CONTENT/421/?topic=topic02>, accessed December 17, 2002.

Table A2: Underuse of invasive cardiac procedures among insured patients is much worse than overuse

Type of service Extent of overuse (year of study) Extent of underuse (year of study)

Angiography*	17% (1987) 4% (1993)	44% (1997)
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.

Sources: Overuse studies are cited in Mark A. Schuster et al., "How good is the quality of health care in the United States?" *Milbank Quarterly* 1998;76:517-563. The three underuse studies are: Marianne Laouri et al., "Underuse of coronary angiography: Application of a clinical method," *International Journal of Quality Health Care* 1997;9:15-22; M. Laouri et al., "Underuse of coronary revascularization procedures: Application of a clinical method," *Journal of the American College of Cardiology* 1997;29:891-897; and 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.

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."

Source: Kip Sullivan, "Managed care plan performance since 1980: Another look at two literature reviews," *American Journal of Public Health* 1999;89:1003-1008.

"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."

Source: George Lundberg (former editor of the *Journal of the American Medical Association* and co-author of a paper defending managed care with Paul Ellwood), in Linda Marsa, "Former JAMA editor laments the state of medical care," *Los Angeles Times*, March 26, 2001, <http://www.latimes.com/print/health/20010326/t000026016.html>, accessed March 28, 2001.

“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.”

Source: Arthur Caplan (director of the Center for Bioethics at the University of Pennsylvania and a former advisor to Hillary Clinton), "In 2001, managed care our No. 1 health crisis," MSNBC, December 21, 2001 <http://www.msnbc.com/news/671464.asp>, accessed December 23, 2001.

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]

Source: Deborah Peikes et al., “Effects of care coordination on hospitalization, quality of care, and health care expenditures among Medicare beneficiaries: 15 randomized trials,” *Journal of the American Medical Association* 2009;201:603-618.

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).”

Source: Stephen N. Rosenberg et al., “Effect of utilization review in a fee-for-service health insurance plan,” *New England Journal of Medicine* 1995;333:1326-1330, 1326.

Prevention

“Although some preventive services do save money, the vast majority reviewed in the health economics literature do not.”

Source: Joshua T. Cohen et al., “Does preventive care save money? Health economics and the presidential candidates,” *New England Journal of Medicine* 2008;358:661-663.

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.”

Source: Congressional Budget Office, *An Analysis of the Literature on Disease Management Programs*, October 13, 2004, <http://www.cbo.gov/showdoc.cfm?index=5909&sequence=0>, accessed September 25, 2005.

“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).

Source: David M. Eddy et al., “Clinical outcomes and cost-effectiveness of strategies for managing people at high risk for diabetes,” *Annals of Internal Med* 2005;143:251-64.

“[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”

Source: Soeren Mattke et al., “Evidence for the effect of disease management: Is \$1 billion a year a good investment?” *American Journal of Managed Care* 2007;13:670-676.

Report cards, pay-for-performance

“There has been enough experience to date with pay for performance and transparency to argue convincingly that neither of these additional mechanisms for compensation physicians will achieve the goal of most patients to receive high-quality, humane, and affordable care.... [citations omitted]. These mechanisms are not silver bullets; they can enhance performance only modestly.... In addition, these mechanisms may have unintended consequences. If only a few measures are used in pay-for performance arrangements, clinicians will design particular aspects of their practice to ensure those measures are achieved, even if it means reducing quality of care in other practice areas.”

Source: Robert Brook, “Physician compensation, cost, and quality,” *Journal of the American Medical Association* 2010, 304:795-796

“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.”

Source: Rachel M. Werner and David A. Asch, “The unintended consequences of publicly reporting quality information,” *Journal of the American Medical Association* 2005;293:1239-44, 39.

“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

performance outcomes. Fewer OSA clients with the greatest severity were treated in outpatient programs with the implementation of PBC [performance-based contracting].”

Source: Yujing Shen, “Selection incentives in a performance-based contracting system,” *Health Services Research* 2003;38:535-552, 535.

“[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). “[M]ore severely ill ... patients experienced dramatically worsened health outcomes.” (p. 583) “Report cards led to a decline in the illness severity of patients receiving CABG [coronary artery bypass grafts] in New York ... relative to patients in states without report cards” (p. 583).

Source: David Dranove et al., “Is more information better? The effects of ‘report cards’ on health care providers,” *Journal of Political Economy* 2003;111:555-588.

“We simulated performance-based payments to Massachusetts practices serving higher and lower shares of patients from these vulnerable communities in Massachusetts. Typical practices serving higher shares of vulnerable populations would receive less per practice compared to others, by estimated amounts of more than \$7,000.”

Source: Mark Freidberg et al., “Paying for performance in primary care: Potential impact on practices and disparities,” *Health Affairs* 2010;29:925-932, 926.

Electronic medical records

“We 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]

Source: Max J. Romano and Randall S. Stafford, “Electronic health records and clinical decision support systems: Impact on national ambulatory care quality,” *Archives of Internal Medicine*, published online January 24, 2011, doi:10.1001/archinternmed.2010.527.

“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.”

Source: David U. Himmelstein et al., “Hospital computing and the costs and quality of care: A national study,” *American Journal of Medicine* 2010;123:40-46, 40.

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.

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- (2) Elliot Fisher et al., “Fostering accountable health care: Moving forward in Medicare,” *Health Affairs* 2009;28:w219-231(Published online 27 January 2009).

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.

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- (3) Stephen M. Shortell et al., “How the Center [*sic*] for Medicare and Medicaid Innovation should test Accountable Care Organizations,” *Health Affairs* 2010;29:1293-1298.

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.

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- (4) Mark McClellan et al., “A national strategy to put accountable care into practice,” *Health Affairs* 2010;29:982-990.

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.

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- (5) Stephen M. Lieberman and John M. Bertko, “Building operational and regulatory flexibility into Accountable Care Organizations and ‘shared savings,’” *Health Affairs* 2011;30:23-31.

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.

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.¹⁴ 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.”¹⁵ 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.”¹⁶ 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.¹⁷ 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”¹⁸). 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

¹⁴ William C. Hsiao et al., *Act 128 Health System Reform Design: Achieving Affordable Universal Health Care in Vermont*, February 2011.

¹⁵ Hsiao et al., *op cit.*, 51.

¹⁶ CBO, *op cit.*, 77.

¹⁷ Hsiao et al., *op cit.*, 51.

¹⁸ Robert J. Reid et al., “The Group Health medical home at year two: Cost savings, higher patient satisfaction, and less burnout for providers,” *Health Affairs* 2010;29:835-843, 841.

\$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.

²⁰ Douglas McCarthy et al., *Geisinger Health System: Achieving the Potential of System Integration Through Innovation, Leadership, Measurement, and Incentives*, June 2009, Commonwealth Fund, <http://www.commonwealthfund.org/Content/Publications/Case-Studies/2009/Jun/Geisinger-Health-System-Achieving-the-Potential-of-System-Integration.aspx>, accessed February 14, 2011.

²¹ Ronald A. Paulus et al., "Continuous innovation in health care: Implications of the Geisinger experience," *Health Affairs* 2008; 27:1235-1245, 1240.

²² Hsiao et al. op cit., 52.

²³ Beat D. Steiner et al., "Community Care of North Carolina: Improving care through community health networks," *Annals of Family Medicine* 2008;6:361-367, 362.

²⁴ Letter from Kevin Lurito, Mercer, to Jeffrey Simms, State of North Carolina, Office of Managed Care, September 19, 2007, http://www.communitycarenc.com/PDFDocs/Mercer%20SFY05_06.pdf, accessed February 16, 2011.

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.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."²⁷ Steiner et al. report that "many networks augment this state support with grants from local and national organizations."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.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.

²⁶ Letter from Kevin Lurito, 2.

²⁷ Beat D. Steiner et al., "Community Care of North Carolina: Improving care through community health networks," *Annals of Family Medicine* 2008;6:361-367, 362.

²⁸ *Ibid.*, 363.

²⁹ American Academy of Family Physicians, *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)
