

Meeting the Challenge of Health Care Quality Achieve Reforms in Medicare, Quality, & Malpractice

Henry J. Aaron and Joseph P. Newhouse

Summary

The cost of the U.S. health care system is high and rising at unsustainable rates, and a growing number of Americans has inadequate health insurance or none at all.¹ The American public has a right to expect all Presidential candidates to address the overall problem of rising costs and decreasing financial access to care. But it also should expect candidates to address certain specific health system shortcomings, including the need to reform Medicare, improve quality, and tackle medical malpractice reform.

Each of these issues has figured prominently in recent political debates. Medicare threatens large and growing federal budget deficits as baby boomers retire or become disabled, especially if per capita health care spending continues to outpace per capita income growth. Scientific advances can reduce the number of needless deaths and injuries that result from shortcomings in the quality of health care, but these advances will not come cheaply, and many will require revolutionary change in the way health care is delivered. And, the compensation system for victims of medical malpractice is widely recognized as flawed, but the most commonly suggested solution—a cap on awards for non-economic damages—could actually worsen problems with the current system.

This paper provides background to interpret the positions that various Presidential candidates may take on these issues, and while the outcome of many policy initiatives is uncertain, some specific recommendations are warranted in each area:

¹ Four approaches to reforming the U.S. health care financing system are described in a companion paper in this series.

- **Medicare reform**—with respect to Part D—the drug benefit—allow Medicare to select, through a competitive bidding process, a single pharmacy benefits management company for each region of the country and standardize plan offerings so that consumers do not have such a bewildering array of options; increase the deductible for Part D and use the savings to close the “doughnut hole”
- **Quality improvement**—encourage development of cost-effective approaches to personalized medicine, tailored to individual patients’ specific makeup, and the use of health information technology, and continue to test quality improvement strategies in Medicare and Medicaid
- **Malpractice reform**—support a streamlined dispute resolution system that would more fairly compensate a larger proportion of patients injured by negligent health care providers.

The federal government, with its enormous investments in health care programs is uniquely able to mount the research necessary to stimulate widespread system improvements in quality and efficiency. The next President can use specific issues such as these as first forays into what needs to be a complete system overhaul.

Reforming the Medicare System

Medicare finances health care for the elderly and for workers who become disabled. A distinct insurance program for these groups is logical, because, for most adults, health insurance is linked to employment. When, because of age or disability, people can no longer work, they generally lose access to employer-based insurance and may not have sufficient income to purchase it on their own.

Enacted in 1965, Medicare from the beginning was a political compromise. Part A, sponsored originally by Democrats, covers hospital and skilled nursing care, and Part B, sponsored originally by Republicans, covers physician care and certain other services. Not coincidentally, private health insurance then typically consisted of parallel plans covering hospital and physician services. Congress later allowed

Medicare beneficiaries to enroll in prepaid group plans or health maintenance organizations (Part C) and enacted limited drug coverage (Part D), effective in 2006.

Budgetary and health policy analysts see several problems with Medicare that need to be fixed. First, Medicare and Medicaid account for the entire projected long-term gap between federal revenues and federal spending, plus a little. Second, Medicare can expose beneficiaries to financially ruinous cost-sharing, particularly from lengthy hospital stays. Third, coverage of long-term care—nursing homes, home care, and other services typically needed by people with multiple chronic conditions—is spotty. Finally, the payment system is enormously detailed and hard to administer, with somewhat arbitrary fees based on patients' diagnoses or services rendered.

Because of gaps in Medicare coverage, most beneficiaries also have some kind of individual supplemental insurance—from former employers, Medicaid, or private purchase. About 33 percent receive retiree health coverage. Unfortunately, this benefit is eroding fast, because high costs are driving employers to cut retiree benefits or drop them entirely. About 13 percent of low-income Medicare enrollees also qualify for Medicaid, which pays some or all of beneficiaries' cost-sharing obligations and in many states covers more services than does Medicare. The lack of coordination between Medicare and Medicaid degrades quality of care, according to the Medicare Payment Advisory Commission. Twenty-nine percent of beneficiaries purchase supplemental insurance—called “Medigap” coverage—and another 17 percent are enrolled in prepaid plans (Part C), almost all of which provide some supplementary benefits. The resulting coverage is complex and uneven and boosts Medicare spending by insulating enrollees from cost-sharing that would otherwise dampen demand.

Medicare's third major problem is quality. Patients with the same diagnoses are treated in widely different ways—at markedly different costs—depending on where they reside. Many patients, especially those treated simultaneously by several physicians, receive conflicting or counterproductive interventions. Nor do beneficiaries reliably receive the specific services recommended for their conditions. (None of these problems are confined to Medicare).

Reforming Medicare's Benefit Structure

Three broad categories of reforms have been suggested for Medicare. Each has the potential to correct certain flaws in the current system. But each is difficult to design and implement well.

- One approach would convert Medicare into high-deductible insurance linked to health savings accounts to which the government would make an annual contribution. Beneficiaries would pick an insurance plan, while the federal government would do little more than pay premiums. This approach reflects market-based ideas, popular with conservatives, that create disincentives for consumers to purchase excessive health services.
- A second approach—premium support—would give Medicare enrollees a sum each year that they could use to buy private insurance. The payment would be adjusted periodically to keep up with rising insurance costs. Beneficiaries who selected plans costing more than the government payment would have to pay the difference, but if they bought less costly insurance, they could keep all or most of the saving.
- The final approach would add an optional “super-Medicare” benefit to the current program, by combining benefits from Parts A, B, and D and add special coverage, such as a limit on patient liability. Enrollees would pay a single premium, set to cover the cost of any added benefits (assuming universal enrollment). This option would add little to net federal health care spending.² Those who did not join when first eligible would have to pay higher premiums to join later. Assistance for the poor, now provided by Medicaid, would be folded into Medicare.

The Troubled Beginnings of the Medicare Drug Benefit

The Medicare drug benefit rolled out to negative reviews, especially regarding the bewildering array of plans and lack of good information for choosing among them.

² Because some adverse selection might occur at initial enrollment, net costs to the government might increase somewhat.

Most of the confusion around initial implementation will pass, but several larger issues remain, relating to the administration of the benefit, government's role in negotiating drug prices, and the structure of cost-sharing arrangements.

PBMs—To Choose or Not to Choose

Unlike Medicare, private insurers typically contract with a single pharmacy benefits manager (PBM) to administer their drug benefits. The PBM's profits depend on negotiating discounts with drug manufacturers. Periodic rebidding among PBMs ensures a competitive price. Thus, people with private drug insurance rarely, if ever, have to choose among PBMs. By contrast, Medicare beneficiaries confront many drug plans offering widely different formularies (drug menus) and cost-sharing arrangements.³

Each approach has advantages and weaknesses. Competing plans enable some people to match their particular needs with plan formularies. In fact, Medicare's drug costs have turned out to require lower-than-anticipated premiums. But, if the Part D legislation had permitted Medicare to choose a single PBM for each geographic region with periodic rebidding, it could have avoided rampant confusion that has deterred some who are eligible from enrolling and led others to choose plans that are not in their best interest. (Medicare has such arrangements with the fiscal intermediaries and insurance carriers that administer Parts A and B.)

Drug Prices

Simply including drug benefits in Part B also would have simplified beneficiary choices, but would have raised the explosive issue of how to determine drug prices. Under traditional Medicare, the government sets non-negotiable prices that approximate the cost of service provision for most hospital and physician services. However, Medicare has a hard enough time matching prices to the costs of providing hospital services and

³ Medicare requires enrollees in 46 states to choose among at least 40 stand-alone prescription drug plans. Drug plans can also apply utilization management tools to covered drugs, such as prior authorization, quantity limits, and step therapy (requiring that a patient be given the cheapest and safest drug before costlier and possibly riskier drugs are tried).

sometimes makes mistakes. Drugs are even harder to price than hospital services. The biggest costs—for research and testing—occur before the first dose is administered. Once approved for sale, most drugs cost little to produce. As long as drugs are under patent, manufacturers can charge prices far above production costs and earn large profits, part of which finance research to develop future drugs. Although some complaints about high drug prices are quite justified, simply setting prices at production costs would hobble pharmaceutical research and discourage venture capital investments in drug development. Today's taxpayers and beneficiaries would gain; future patients would lose.

If the federal government changed from a “hands-off” buyer into an aggressive price negotiator, investors might fear that negotiation would become price-setting. For example, Medicare and Medicaid administrators would likely point out that they must stay within a congressionally set budget and make what amounts to a take-it-or-leave-it offer. Or Congress could simply step in to set prices.

The “Doughnut Hole”

The current benefit formula defies all principles of insurance. The standard plan includes the so-called “doughnut hole.” In 2007, this means that, for beneficiaries with the standard plan, benefits are interrupted after out-of-pocket expenditures reach \$800,⁴ and resume when outlays reach \$3,850, at which point the program covers 95 percent of the cost of nearly all drugs on the plan's formulary without limit. The no-benefits region—found in almost no commercial policy—emerged as a way to meet conflicting goals. A budget resolution capped the bill's total cost, but Congress wanted to give some benefits to virtually everyone—even those who spend little on drugs—yet protect those who spend a lot on drugs from ruinous bills.

The result was a design that makes little sense as insurance. Having Medicare pay for small outlays may improve some patients' compliance with a medication regimen, but

⁴ Some plans have provisions that aid consumers, for example, by providing limited coverage—usually of generic drugs—within the doughnut hole; other provisions hurt consumers, for example, by counting as out-of-pocket expenditures only those for drugs included in a particular plan's formulary.

it “wastes” money paying for drugs that people can easily afford. It also led to a needlessly complex payment scheme. On balance, the situation would be improved if Medicare could: choose a single PBM from competing bidders to serve a given region, increase the deductible, and use the money saved to eliminate the doughnut hole. The complexity and irrationality of the benefit formula for the newly added drug benefit is yet another reason to redesign the entire Medicare program.

Improving Health Care Quality

The quality of health care improves when science finds new, beneficial interventions and when health care practitioners use them appropriately, which in turn requires that appropriate information is fully available to guide patient care. In this section, we focus on issues that will confront the next President—the promise and cost of ‘personalized’ medicine, the need for more coordination of care across providers, how to use the vast quantity of information that has been or could be gathered by the federal government in its capacity as the largest single payer for medical care, and the unique problems and opportunities for medicine created by health information technology.

Personalized Medicine

A new approach to medical care—personalized medicine—promises both remarkable improvements in treatment and staggering increases in expenditures. Most diseases arise because one or more genes malfunction. The defective genes cause too much or too little of some protein to be produced or change the protein in a harmful way. Furthermore, not only are people genetically unique, they also accumulate added biological variation in the course of their lives through interactions with differing environments. What are regarded as single diseases are generally a large set of slightly different cellular, molecular, or genetic malfunctions that manifest themselves in similar, even indistinguishable, ways. Thus, drugs employed to treat what is considered a single disease may really be treating many slightly different illnesses. For these reasons, when two people with the same diagnosis take a medication, either they or their disease may not react the same way. Drugs typically help some patients,

harm others, and produce no effect in still others; many produce different side effects in some or all who take them. At present, few of these reactions are predictable. As physicians become able to read the make-up of each person's genes and proteins, they will come to understand much more clearly whether particular drugs will work on particular patients and what the side effects will be.

Reading each person's biological characteristics also will make it possible to identify who is likely to be afflicted with certain diseases, so that treatment may begin before the conditions even manifest themselves. Already today, in the best-known example, women with particular genes that predispose them to develop breast cancer may undergo "prophylactic mastectomies." As personalized medicine advances, this type of 'treatment-before-illness' could become commonplace.

Realizing the benefits from personalized medicine would be, one might think, an unalloyed blessing. But the full flowering of personalized medicine will also bring profound problems. Screening tests will become a fundamental element of primary care. Even if they are automated, the cost will be high. These tests will indicate much earlier than is now possible the need for therapies in vast numbers of people. Far more important is that personal medicine will mean personal drugs—special products developed because they will work reliably for a particular individual without undue side-effects. The potential cost of this advance is almost unlimited, as companies would be asked to develop, in essence, an "orphan drug" for a single individual, rather than a blockbuster, "one size fits all" medication. So too are the ethical and political challenges that will arise if reversing or forestalling illness becomes feasible but unaffordable, or if people predisposed to certain diseases are stigmatized.

These challenges will not appear full-blown at some specific date, but will emerge gradually as scientific advances proceed and will intensify pressure to determine how much the nation is prepared to spend on health care. Careful, ongoing research on both the science and the economics of such advances is needed in order that they can be developed in ways that benefit population health, without breaking the bank.

Increasing Coordination of Care

The explosion of medical knowledge has created the possibility of vast improvements in the quality of health care. To fully realize this potential requires fundamental change in how physicians practice medicine and, possibly, in how the delivery of care is organized.

Several decades ago, physicians were expected to know the recommended therapies for most diseases. Solo practice was the norm. Doctors did not usually need to consult with medical colleagues or other health professionals. Now, the menu of beneficial interventions is so vast that no one can master—or keep up with—more than a tiny bit of it. Countless medications are available. Patients with multiple conditions, who account for most of medical spending, typically have several physicians. They receive both inpatient and outpatient care. When the activities of multiple providers are well coordinated, when medications are monitored to avoid harmful interactions, and when health professionals act carefully to avoid error, the results can be impressive.

Too often this standard is not met. The Institute of Medicine has concluded that tens of thousands of patients die or suffer injury from avoidable medical errors. About half the time, patients simply do not receive the treatments recommended for their condition, according to a study by Elizabeth McGlynn and colleagues. Some problems arise because paper records are lost, others because one physician does not know what another physician has already discovered, and still others because the wrong medication or the wrong dose is dispensed. In general, the norm of the physician as solo operator obstructs the kind of cooperation and communication that has become essential to the delivery of optimal care for a growing fraction of patients. Optimal care increasingly requires physicians, hospitals, and other providers to be linked in a single system.

Information technology holds the promise to link together various providers, and organize information about patients' several conditions to improve the quality of

clinical decisionmaking. At the institution or community level, information technology can scan for indications of an outbreak of hospital-acquired infections or inefficient patterns of care. Information technology also will change the locus of care. Many patients don't need to be in a physician's office or hospital for their heart disease, diabetes, or blood pressure to be monitored; increasingly, that can be done from home, with the results transmitted to the provider and tracked. Even kidney dialysis can be performed at home. This enables physician time to be used more efficiently, saves patients the trouble of repeat physician visits, and offers the possibility of earlier intervention if a patient's condition changes. Certain high-cost specialists don't need to be at the bedside—intensive care doctors now monitor multiple intensive care units remotely. These and other trends have the potential for improving the safety, effectiveness, patient-centeredness, and timeliness—that is, the quality—of care.

Using Federal Leverage to Improve Health Care Quality

In 2007, federal, state, and local governments will spend more than \$1 trillion on health care, nearly three-fourths through Medicare and Medicaid. Governments as buyers have enormous leverage to promote high-quality care and vast quantities of data with which current practices could be analyzed. These capacities are barely used.

Medicare has begun to introduce some reforms based on developments in commercial insurance. One is "disease management." Its goal is to improve compliance with recommended medical regimens among those with costly chronic diseases, such as diabetes, asthma, or congestive heart failure. Medicare is running a large experiment in which some patients are assigned randomly to receive extra disease-management services and some are not. The effectiveness of disease management remains controversial, but more will be known when Medicare reports its results.

A second Medicare innovation is "pay-for-performance," a program that adjusts what providers are paid, based on their adherence to certain specified procedures or on patient outcomes. Surprisingly, such practices are new to medicine, and progress has been slow for both substantive and political reasons. Among the substantive problems

are these: extra pay for providing certain beneficial procedures may shift resources from other services that are equally beneficial, but unmeasured; the payment algorithm has to be updated as new information emerges, so that standards do not enshrine outmoded procedures; finally, auditing physicians' performance is costly, whereas rewards for patient outcomes are error-prone, since they depend not only on the physician's actions, but also on the patient's underlying health, the severity of the particular case, and the patient's co-operation (for example, does the patient take prescribed drugs?). Politically sensitive and economically important issues include whether rewards are based on absolute or relative performance, whether superior care is rewarded or inferior care is punished, and how much money is at stake.

Another opportunity for improving quality of care resides in Medicare and Medicaid records, a treasure trove of data that could improve evaluation of providers' performance and the identification of effective treatments. Currently, those data are little used for two reasons. First, because they are intended to support the claims process, they lack key elements necessary for valid clinical analyses, such as patient diagnosis or the outcome of laboratory tests. Historically, data on Medicare beneficiaries enrolled in organized plans such as health maintenance organizations were incomplete. And, no outpatient prescription drug data were available until 2006. Second, currently collected data that are generally available for analysis suppress certain information, especially beneficiary and provider information, in order to protect individual privacy. These omissions mean that Medicare data cannot be linked to clinical information from commercial insurers to obtain a more comprehensive picture of service use and provider performance. Meanwhile, Medicaid data are almost unused, in part because they reside in 50 states, and Congress has not authorized federal administrators to set standards to assure their comparability and availability.

These qualifications do not mean that the massive amounts of data generated by Medicare and Medicaid are useless. Since nearly \$800 billion of public funds is being spent on these programs, it is vitally important to see that the data collected are supplemented from other sources and made available to analysts to improve the quality of care.

Fulfilling the Promise of Health Information Technology

Many managerial reforms and a change in the culture of medical practice are necessary to achieve the promise of modern medicine. Health information technology (HIT) can greatly facilitate this process. By recording information on each patient in an electronic form that can be read easily by other physicians, the quality of care can be improved, duplicative tests can be forestalled, and harmful drug interactions can be detected or avoided. In addition, adopting a single computer-based system of recording medical procedures and charges can simplify billing, saving providers and patients time and money.

Implementing HIT faces major obstacles—technical, economic, and sociological. Without improved safeguards and data handling practices, patient privacy is in jeopardy. Without easy-to-use interfaces that make appropriate parts of these large datasets available to key users—physicians and other health care personnel, payers, facility administrators, analysts, and patients themselves—the data will languish. Without changes in physicians' practice habits and the willingness to surrender at least some autonomy to a team, the potential of HIT will not be fully realized. The up-front costs of hardware, software, and implementation for such systems are large. For small physician practices, they can be unaffordable; but even if the hardware and software are free, some physicians refuse them.

The federal government has taken some steps to promote HIT and has established important principles for the development of these systems, notably functionality, interoperability, and security. A federal office to coordinate such efforts began operations in 2004. However, the executive order creating it explicitly excluded any additional money to support the effort. Some hospital systems have implemented programs to enforce standard protocols of care among affiliated physicians. The stakes are high in the expansion of these efforts and their eventual success, especially for the elderly and disabled patients served by Medicare and Medicaid. Members of these groups are particularly likely to suffer from multiple conditions where HIT is

especially valuable. Federal financial support to accelerate the introduction of HIT is justified. In addition, federal legislation could remove obstacles to private investment and implementation of HIT. Both the Democratic and Republican nominees in the 2004 Presidential campaign spoke glowingly of HIT's potential, but action so far has been meager.

Malpractice Reform

Elected officials have decried the malpractice system for years. Numerous bills have been introduced to change it. Most are misguided because they would not correct the system's real shortcomings. Malpractice insurance should compensate victims of medical negligence for injuries they have suffered, operate at a reasonable administrative cost, and goad poorly performing practitioners to either improve performance or stop practicing.

The current malpractice system performs poorly on all scores. Most victims of medical negligence—more than 90 percent according to careful studies—never receive any form of compensation. Negligent physicians can continue to practice for a long time with no or only slight financial penalty, because premiums respond incompletely and with considerable lags after negligence occurs. Administrative costs are high because compensation is typically awarded only after protracted and expensive litigation.

Finally, the system is inequitable. Lawyers typically charge plaintiffs nothing unless they prevail in the litigation. In that event, the winning lawyer may retain one-third or more of the settlement, plus expenses. Since compensation for lost wages, medical expenses, and other financial losses are the largest part of most settlements, people with little earning capacity—the elderly, the unskilled, or those who are out of the labor force—are unattractive clients. Judgments in their cases may not even cover litigation costs.

Juries sometimes award compensation for non-economic damages, the so-called “pain and suffering”—a highly subjective undertaking. A relatively small number of highly

publicized cases with multi-million dollar judgments (many of which are reduced markedly in later, less well publicized proceedings) have provoked outrage regarding “runaway juries” and led to an exaggerated and inaccurate belief that malpractice is responsible for a large part of increasing medical expenditures.

The fear of litigation is widely thought to foster “defensive medicine”—care intended to insulate the provider from judgment in the event of a lawsuit, but which does not produce significant medical benefit. Precise measurement of how much is spent on such care is impossible, since even standard medical care often produces small benefits. And the care that physicians provide trying to protect their legal flanks may offer at least some benefit as well. Furthermore, physicians’ worries about lawsuits are disproportionate to the risk, since only those in few high-risk specialties—obstetrics, anesthesiology, and some surgical subspecialties—are likely to face malpractice litigation.

Against this background, several states have sought to rein in medical expenditures by capping non-economic damages. Repeated efforts have been made to enact federal legislation imposing similar limits, but, through 2006, without success. Should the next President support such legislation at the federal level? If enacted, would it help hold down health care spending? Would it do so in a desirable way? Would it correct the major failings of the current malpractice system? Are there better alternatives?

The starting point for answering these questions should be an understanding of trends in malpractice insurance and of the effects of caps. The belief that capping compensation will modestly lower premiums for malpractice insurance does seem to be correct.⁵ Evidence of this strategy’s impact on defensive medicine is less clear. However, contrary to common belief, the cost of malpractice insurance fell from 1986 through 2000 by an average of about 10 percent for all physicians and by larger proportions for the high-risk specialties of surgery, obstetrics-gynecology, and anesthesiology. Furthermore, caps, which apply to awards for pain and suffering,

⁵ Economist Kenneth E. Thorpe reports that states that cap awards have premiums that are 17.1 percent lower than states that do not (“The Medical Malpractice ‘Crisis’: Recent Trends and the Impact of State Tort Reforms.” *Health Affairs*, Web Exclusive, January 21, 2004.)

reduce potential awards to old and poor plaintiffs proportionally more than they reduce awards to high earners. Thus, caps would make the system even more unfair than it already is.

The principal problems with the current system are not that too much is being paid *overall* to compensate victims of medical negligence, however questionable some of the largest settlements may be. The problem is the reverse—that *nothing* is paid to more than 90 percent of the victims and that administrative costs are so high. The solution to both problems is to replace the system of malpractice litigation with simplified and streamlined dispute resolution. One such plan would provide federal grants to physicians, hospitals, and health systems that disclose errors to patients and offer compensation directly, perhaps with mediation by a third party. Patients would not give up the right to sue, but any admission of error by the provider in this arrangement would not be admissible in later litigation. Such a program could be accompanied by subsidies to encourage data reporting, quality improvement initiatives, introduction of modern information technology, and other measures. To assure equitable access to compensation, some nations require that fees for plaintiffs' attorneys be based on time and expenses, with subsidies to make legal fees affordable for low-income complainants, or a system of fixed compensation for specific injuries could be instituted, similar to that used in workers compensation programs, in order to reduce uncertainty and administrative costs.

Concluding Observations

Government has a huge stake in health care. First, it has a fundamental interest in the health of the citizenry, especially those who would be unable to obtain care without assistance—the poor, the elderly, and people with disabilities. Second, government pays for services through major programs, regulates many aspects of health care and professional practice, and promotes population-wide health measures through public health programs. Third, government supports an enormous research enterprise that promises great advances in clinical care and a more efficient system of service delivery.

But, all the news isn't good. This giant enterprise is enormously expensive, with health care spending the source of all projected government budget deficits. On the private side, employees see an ever-larger share of compensation diverted to pay for health insurance. Health care quality is deficient, yet the knowledge is available that could improve it. America is simply not getting as much as it could for its enormous investment in health care services. Formulating policy on health care financing, regulation, and research will be the most important domestic issues that the next President faces. No Presidential candidate should be permitted the luxury of vague generality on these questions.

About the Authors and the Project

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Opportunity 08 aims to help 2008 presidential candidates and the public focus on critical issues facing the nation, presenting policy ideas on a wide array of domestic and foreign policy questions. The project is committed to providing both independent policy solutions and background material on issues of concern to voters.

Additional Resources

Aaron, Henry J., and Schwartz, William B., eds. *Coping With Methuselah: The Impact of Molecular Biology on Medicine and Society*. Washington, D.C.: Brookings Institution, 2004.

Institute for Healthcare Improvement, for components of "quality care,"
<http://www.ihl.org>.

Kaiser Family Foundation. *Medicare Chartbook*, 3rd edition, 2005. Available at
<http://www.kff.org/medicare/7284.cfm> and, for state health care data,
<http://www.statehealthfacts.org>.

Localio, A. R., Lawthers, A.G., Brennan, T. A. *et al.* "Relation between malpractice claims and adverse events due to negligence. Results of the Harvard Medical Practice Study III." *New England Journal of Medicine* 325: 245-251, July 25, 1991.

McFadden, Daniel. "Free Markets and Fettered Consumers." *American Economic Review* 96: 5-29, March 2006.

McGlynn, Elizabeth A., Asch, Steven M., Adams, John, *et al.* "The Quality of Health Care Delivered to Adults in the United States." *New England Journal of Medicine* 348: 2635-2645(26), June 26, 2003.

Mongan, James J., Mechanic, Robert E., and Lee, Thomas H. "Transforming U.S. Health Care: Policy Challenges Affecting the Integration and Improvement of Care." *Policy Brief: Brookings Health Policy Initiative*. Washington, D.C.: Brookings Institution, December 15, 2006.

Rodwin, Marc A., Chang, Hak J., and Clausen, Jeffrey. "Malpractice Premiums and Physicians' Income: Perceptions of a Crisis Conflict with Empirical Evidence." *Health Affairs* 25: 750-758, May/June 2006.