

ease surveillance will increase. Eventually, mobile-phone technology, enabled by global positioning systems and coupled with short-message-service messaging (texting) and “microblogging” (with Twitter), might also come into play. For instance, an organization called Innovative Support to Emergencies, Diseases, and Disasters (InSTEDD) has developed open-source technology to permit seamless cross-border communication between mobile devices for early warning and response in resource-constrained settings.

These Internet-based systems are quickly becoming dominant sources of information on emerging diseases, though their effects on public health measures remain uncertain. Information overload, false reports, lack of specificity of signals, and sensitivity to external forces such as media interest may limit the realization of

their potential for public health practice and clinical decision making. Sources such as analyses of search-term use and news media may also face difficulties with verification and follow-up. Though they hold promise, these new technologies require careful evaluation. Ultimately, the Internet provides a powerful communications channel, but it is health care professionals and the public who will best determine how to use this channel for surveillance, prevention, and control of emerging diseases.

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Dr. Brownstein is a faculty member at the Children's Hospital Informatics Program, Children's Hospital Boston, and an assistant professor of pediatrics at Harvard Medical School, Boston. Mr. Freifeld is a

research software developer at the Children's Hospital Informatics Program in Boston and a master's candidate in the New Media Medicine Group of the MIT Media Laboratory in Cambridge, MA. Dr. Brownstein and Mr. Freifeld are the cocreators of the HealthMap system. Dr. Madoff is a professor of medicine at the University of Massachusetts Medical School, Worcester, an infectious disease physician with the Massachusetts Department of Public Health, Boston, and editor of ProMED-mail, a program of the International Society for Infectious Diseases.

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HEALTH CARE 2009

What Works in Market-Oriented Health Policy?

Meredith B. Rosenthal, Ph.D.

There is a widespread belief, embraced by President Barack Obama as well as congressional and industry leaders, that the next round of health care reform should leverage market forces to lower the cost of care and improve its quality. The use of market forces in health policy typically involves altering out-of-pocket prices and information for consumers (the demand side) and incentives for providers (the supply side). Such market-oriented reforms — policies that alter the economic environment in which consumers and providers make health care choices in pursuit of their individual

interests — can be implemented even in highly regulated settings. The main question is how to design these interventions to improve the medical system, without harmful side effects (see table).

On the demand side, consumer cost sharing has been used for decades to alter decisions about care seeking, adherence, and pursuit of lower-cost treatment options. A 10% increase in the out-of-pocket cost of care has been shown to reduce total spending per patient by roughly 2%.¹ Similarly, adding a high (approximately \$1,000) deductible to a plan reduces total spending by 4 to 15%.²

Thus, the adoption of policies that increase the share of costs paid by patients is one way to save money on medical care.

However, research also shows that there are limitations to the usefulness of cost sharing for improving efficiency. Most important, patients with high levels of cost sharing appear equally likely to cut back on essential health care services as on services of low or no value. Such findings suggest that consumer cost sharing ought to be selective, or value-based: low cost sharing for high-value services and high cost sharing for low-value services. Some

Demand-Side and Supply-Side Interventions to Improve the Medical System.

Type of Mechanism and Policy	Market-Oriented Objective	Summary of Evidence
Demand-side mechanisms		
Incentive		
Cost sharing	Encourage consumers to seek care only when benefits exceed costs and to seek higher-value alternatives	Effectiveness: Multiple studies show effectiveness; the RAND Health Insurance Experiment shows that a 10% increase in out-of-pocket costs decreases total health care spending (by all parties) by 2%; a \$1,000 deductible decreases spending by 4 to 15% Side effects: Consumers do not discriminate well between high-value and low-value care; reductions in useful therapies occur, and some vulnerable populations may be harmed
Value-based insurance design	Encourage consumers to use specific high-value therapies (and not to use low-value therapies)	Effectiveness: Few published studies; some evidence of increased adherence to recommended maintenance drugs when copayments are reduced Side effects: None examined in published studies
Information		
Provider report cards	Support consumers' informed choice of physician, hospital, or health system and cause providers to compete on performance to attract and retain patients	Effectiveness: Consumer awareness and use of provider report cards are minimal (<20%); provider response (quality improvement) has been documented in several cases even without consumer response Side effects: Providers avoid high-risk and minority patients
Condition or disease management	Provide patients with interactive advice and support for improved self-management and navigation of the health care system	Effectiveness: Few peer-reviewed studies; recent randomized, controlled trials show little effect on quality or total spending; diversity of programs limits generalizability Side effects: None examined in published studies
Supply-side mechanisms		
Incentive		
Risk sharing	Encourage providers to consider the costs of care to third-party payers when recommending treatment alternatives and developing approaches to illness prevention and management	Effectiveness: Reduces utilization; changing from cost-based to prospective reimbursement for hospitals decreased length of stay; capitation associated with lower spending than fee for service Side effects: Not entirely clear, but reduced access and underuse of effective services were found in some studies; at the hospital level, there was little evidence of avoidance of high-risk patients
Pay for performance	Encourage providers to adhere to specific standards of care, work to attain positive health outcomes, and avoid complications	Effectiveness: In some, but not all, studies, leads to modest improvements in targeted measures (usually process measures of quality) Side effects: Avoidance of nonadherent or high-risk patients, manipulating the system to increase payments without improving performance, excessive focus on targeted measures anticipated

progress has been made in designing value-based insurance for pharmaceuticals, but the application of this concept to other aspects of medical care has lagged, in part because of a lack of comparative-effectiveness information.

Many efforts to improve health care markets involve providing consumers with technical decision support — helping them to determine when to seek care, how to manage chronic conditions, and how to participate in decisions

regarding treatment choices. Payers have invested billions of dollars in efforts to engage patients in self-care and making decisions about treatment. Evidence of the efficacy of such efforts, however, is in short supply. Disappointing results from the recent Medicare experiment with disease-management services provided by third parties have called into question the approaches most commonly used to engage consumers.³

Substantial effort has also gone

into arming consumers with information to help them select physicians and hospitals that are high-quality, low-cost, or both. The combined goals of this effort are improving average quality or efficiency by directing patients to the best providers and creating competition among providers by inspiring them to improve care along the dimensions that are assessed and reported. Provider report cards have been available and evolving since the 1980s,

but research has cast doubt on their value, since patients frequently do not understand, trust, or rely on such reviews in selecting providers.

On the supply side, by contrast, there is some evidence of a response by providers to public reporting about their performance. For example, in a controlled experiment in Wisconsin, hospitals whose quality data were reported publicly engaged more actively in quality-improvement activities than did hospitals receiving the same information privately.⁴ Public reporting of providers' performance also appears to yield less desirable supply responses, including avoidance of patients perceived to be high-risk. Such adverse effects might be diminished through measure selection, risk adjustment, and denominator-exclusion policies that reduce incentives for avoiding nonadherent or high-risk patients.

Payers, for their part, increasingly recognize that payment incentives can affect supply in the realm of medical services in the same way that informed consumers do in other markets. Conceptually, reimbursement reforms involve changing the level of payment, the risk that providers face in relation to utilization or costs, or both. Payers might use the level of payment to encourage more or less utilization overall or to encourage providers to deliver specific services. Causing providers to hold financial risk related to the cost of services is known as risk sharing. In practice, risk sharing varies along a spectrum from withholding of payments or paying of bonuses related to utilization or spending to capitation (i.e., full risk).

Increases in relative prices (for one group of patients or type of

service versus another) have been associated with increased supply. Yet in some cases, providers may increase the volume of services in response to an overall reduction in prices — as they did during the Economic Stabilization Program of the early 1970s. Such “offsets” have been found to reduce the savings from fee reductions by as much as 40%.

Although the magnitude of providers' response to increased risk sharing is less well understood than that of consumers' response to increased cost sharing, providers do respond predictably to incentives for cost control: risk sharing reduces health care utilization and spending. The introduction of Medicare's Prospective Payment System, for example, resulted in a substantial decline in lengths of stay in hospitals. Of course, the quality of care is also of concern, and there are conflicting findings regarding the effect of risk sharing on quality. There are also concerns about incentives for avoiding high-cost patients, but though such “cream skimming” has been found among health plans, there is weaker evidence in the case of providers. There is a paucity of well-controlled studies of risk sharing, however, and most of them confound provider payment with other features of coverage, organization, and care management.

Performance-based payment is increasingly being used to address quality problems in health care. Studies have found modest effects of pay for performance on process measures of quality and intermediate health outcome measures. There are few published data regarding the effect on costs, though one study showed that a pay-for-performance program tar-

geting diabetes quality measures generated savings of 1.5 to 2.5 times the program's cost.⁵ Savings from pay for performance should not be presumed, however, as demonstrated by Britain's experience with spending overruns due to its Quality and Outcomes Framework for general practitioners.

Although reformers point to economic principles to support market-oriented policies, in many cases there is a gap between belief and evidence. Yet research and practice with such policies provide some lessons. First, consumers and providers respond predictably to policies requiring them to share the burden of health care costs: they find ways to reduce utilization and spending. Second, there is strong evidence that increased consumer cost sharing causes unintended reductions in the use of services that are important for better health — a problem unlikely to be solved by simply offering consumers information or advice. But no similar body of evidence documents negative effects on quality from increased risk sharing by providers. Moreover, providers' information advantage over consumers, along with professional ethics, suggests that essential or effective services are less likely to be underused as a consequence of provider risk sharing than consumer cost sharing. Pay for performance and risk adjustment could minimize any negative effects on the quality of care.

On balance, I believe that reforms focused on provider rather than consumer behavior are more likely to yield lower costs and higher quality while minimizing unintended consequences. To be sure, many questions remain about the ideal design of provid-

er incentives. For example, how can risk-sharing arrangements be used effectively when providers are not part of integrated systems? And more research is needed to establish the appropriate scope and magnitude of pay for performance to complement enhanced risk-sharing regimes.

The focus on providers should not mean an absence of involvement by patients in improving the effectiveness and efficiency of care. Along these lines, there may be promise in efforts to reward consumers for the same care-quality processes included in

provider pay for performance. Consumers, too, must have some perceived financial stake — and choices — in cost control. Offering them a financial incentive to entrust their care to a provider team with the capabilities and incentives to deliver coordinated, effective, and efficient care might be a near-term way of accomplishing this goal.

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Dr. Rosenthal is an associate professor of health economics and policy at the Harvard School of Public Health, Boston.

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Controlling Conflict of Interest — Proposals from the Institute of Medicine

Robert Steinbrook, M.D.

As Congress considers mandating the disclosure of industry gifts and payments to physicians on a searchable federal government Web site,¹ others have been developing proposals for reforming physician–industry relations, and key changes are being made to policies at various academic medical centers, professional societies, and companies. In late April 2009, the Institute of Medicine (IOM) issued a report on conflicts of interest that is notable for its breadth — it covers many aspects of medical research, education, and practice as well as both individual and institutional financial relationships — and the variety of its proposals (see box).²

The IOM defined a conflict of interest as “a set of circumstances that creates a risk that professional judgment or actions regarding a primary interest will be unduly influenced by a sec-

ondary interest.” The primary interests of concern include “promoting and protecting the integrity of research, the welfare of patients, and the quality of medical education.” Secondary interests “may include not only financial gain but also the desire for professional advancement, recognition for personal achievement, and favors to friends and family or to students and colleagues.” Of course, public attention has focused primarily on financial conflicts of interest, and the IOM did so as well, viewing them as “not . . . necessarily more corrupting” than other secondary interests but “relatively more objective, fungible and quantifiable” and “more effectively and fairly regulated.”

In general, the IOM committee, chaired by Dr. Bernard Lo of the University of California, San Francisco, supports further restrictions on and oversight of financial associations — but not “a goal of \$0

contributions from industry,”³ as was recently proposed for professional medical associations. Some of the IOM recommendations involve prohibitions, such as bans on faculty participation in companies’ speakers bureaus and other promotional activities in which they “present content directly controlled by industry” and bans on gifts of any amount from medical companies. In some areas, such as research, the committee recommends permitting structured involvement in exceptional cases of physicians who have substantial financial interests in industry but also have expertise that is deemed essential. Noteworthy ideas include standardizing the content and format of disclosures of financial relationships, a new system of funding for accredited continuing medical education (CME) that is “free of industry influence” (although the committee did not agree on