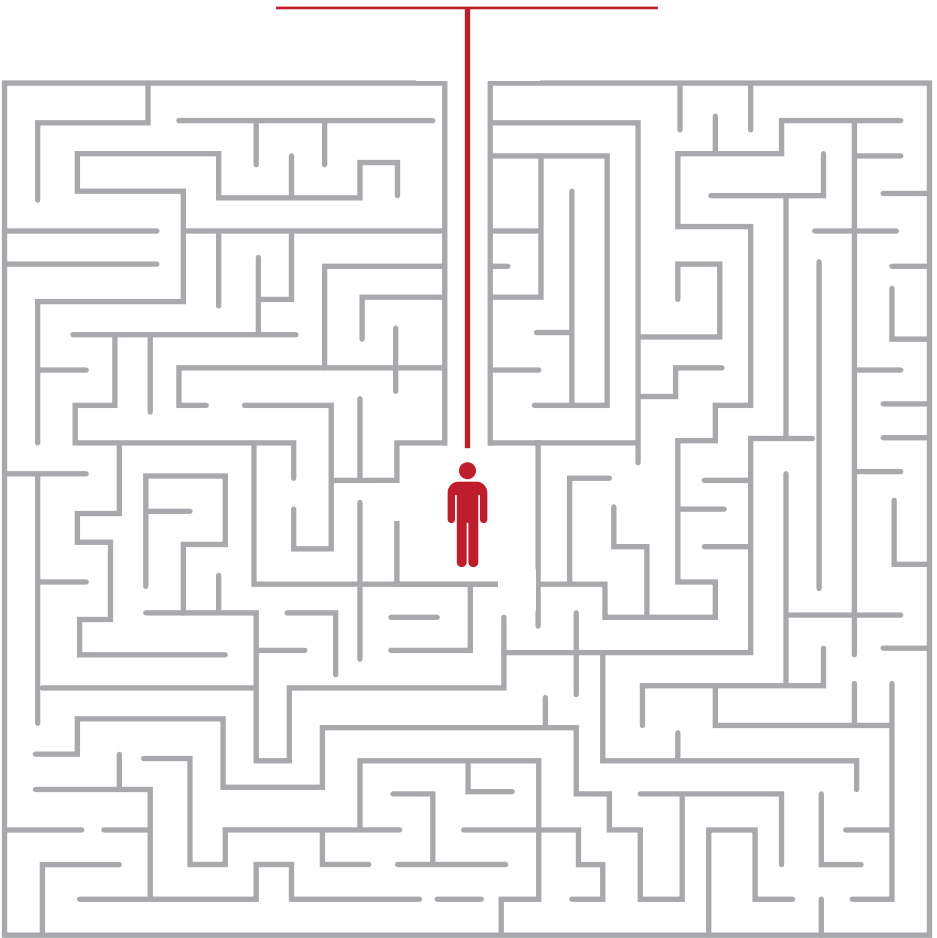


The Health Care Delivery System

A Blueprint for Reform



Quality of Care

Donald Berwick, M.D., M.P.P., F.R.C.P.

Chiquita Brooks-LaSure, M.P.P.

OVERVIEW

The quality of health care in the United States is the best in the world, but the Institute of Medicine notes that, “Between the health care we have and the care we could have lies, not just a gap, but a chasm.” It sounds like a paradox. To understand, we have to disassemble the idea of “quality,” itself.

The United States probably has the best high-technology health care in the world; it certainly has the most high-tech care. Patients who need complex cardiac surgery, audacious cancer care, or “rescue care” in trauma centers or intensive care units are more likely to get state-of-the-art help in the United States than in most other nations in the world. This is not to say that such high-end care is either uniformly available or equitably distributed in the United States—it is not.

We also have the most abundant care in the world, per capita. The good news is that abundance reduces waiting times for treatment. American patients wait, on average, less than patients anywhere else in the world to get the advanced, technical care that they need. The bad news is that the bill is enormous and that all that abundance doesn’t always help patients. The United States in 2006 spent about \$6,500 per capita for health care for its citizens, more than any of the 30 democracies in the Organization

KEY POLICY RECOMMENDATIONS

- Hold hospital boards accountable for quality. This accountability would be equivalent to requirements for proper financial stewardship, subject to penalties for failure to discharge it properly, requiring them to implement mechanisms for its enforcement, possibly as a condition of participation in Medicare.
- Create a Medicare-based national initiative to reduce preventable hospital admissions and readmissions, and work with hospitals to help mitigate the financial burden of that transition.
- Expand hospice care through support to community-based programs, especially in small communities, and proper redesign of Medicare and Medicaid payment systems to limit expensive treatments that do little to improve the quality of life.

for Economic Cooperation and Development. The next most costly nation spent 60 percent of that per capita, and several nations whose systems outperform ours in satisfaction and health status spent even less.¹

One reason for high cost and low value in U.S. health care is the phenomenon of “supply-driven care,” as documented by researchers at Dartmouth Medical School. Their studies show very high correlations between costs per capita in Medicare and local and regional levels of supply of specialists, hospital beds, ICU beds, and technologies—without any relationship between costs and outcomes.² Health care experts differ widely in their estimates of the degree of waste in America’s \$2 trillion health care bill, but many calculate it to be on the order of 30 percent of total production costs. Some say it is even higher.

The United States, in general, also leads the world in health care research. Biotechnical innovations and bioscience are successful in many nations, but no other nation has an organization that in scale, excellence, and achievement matches the National Institutes of Health or the Centers for Disease Control and Prevention.

Despite this excellence in health care technology, abundance, and research, the U.S. health care system in numerous other crucial dimensions significantly underperforms, both in absolute terms and relative to other developed nations and across states in areas such as injury rates of patients in care, absence of needed care, overuse of unnecessary and sometimes harmful care, continuity failures for the chronically ill, and racial and socioeconomic inequity.

The Institute of Medicine outlines six “aims for improvement” when it comes to health care system performance: safety, effectiveness, patient-centeredness, timeliness, efficiency, and equity (see the book’s introduction for more details). The IOM report, “Crossing the Quality Chasm,” summarizes evidence on major problems in every one of these six dimensions of health care quality, and suggests that the United States can significantly improve its health care quality in every dimension with the aid of already-available technology.³

Research since the report’s publication has continued to confirm that the quality chasm exists. Multinational comparison studies between the United States, the United Kingdom, Canada, Australia, New Zealand, Germany, and the Netherlands have ranked the United States last on measures of quality, efficiency, equity, outcomes, and most of all on health care costs as a percentage of GDP. Our life expectancy is even almost a full year lower than the average OECD country.⁴

The past decade has included some progress on quality of care, in many cases led by or catalyzed by federal policy and governmental actions. These include improved safety and care reliability in the Veterans Health Administration, higher chronic disease care quality in the Indian Health Service and in safety net services sponsored by the Bureau of Primary Care in the Health Resources and Services Administration, better technical assistance capacity in several Quality Improvement Organizations, Medicare’s successful Hospital Quality Improvement Demonstration Project, and the Agency for Healthcare Research and Quality’s annual National Reports on health care quality and disparities, as well as AHRQ’s research products on patient safety indicators and other standardized measures of quality.

These successes suggest that the federal government—as both a payer and provider of care—can catalyze focused health system improvements. It can lead through example as a care provider, have direct influence as a purchaser, and provide metrics for quality measurement and goal-setting. The National Quality Forum has made significant gains in certifying evidence-based measurements for health care quality in the private sector, with the active participation and encouragement of the Centers for Disease Control, the Agency for Healthcare Research and Quality, the Centers for Medicare and Medicaid Studies, and other federal agencies.

Private-sector activity on improving health quality also gained strength following the release of IOM’s “Crossing the Quality Chasm” and “To Err Is

Human” reports. A few of the particularly relevant improvements include a new Leadership Center at the American Hospital Association; tightened purchasing standards through the Leapfrog Group and the National Business Group on Health, among others; increased activity at the Institute for Healthcare Improvement, including two massive national campaigns on patient safety; formation of the Hospital Quality Alliance and the Ambulatory Quality Alliance, which promulgate quality goals and measurements in their respective sectors; new requirements for physician training in quality improvement as part of the standards of the Accreditation Council for Graduate Medical Education; and the widespread deployment of multi-organization collaborative improvement projects by foundations and multihospital systems.

Even though the private sector may be expanding its efforts to improve health care, the quality chasm remains wide. The Commonwealth Fund in July 2008 released its most recent report card on health care quality America, which observes that performance has deteriorated across the dimensions.⁵ Preliminary private-sector efforts are not enough; the United States needs more consistent and insistent federal leadership to accelerate progress.

THE FUTURE OF HEALTH CARE QUALITY

The pursuit of health care quality can be divided into two broad components: improving the quality of care for individuals, especially for people with acute and severe illnesses; and reshaping our health care systems to improve care across the population.

Each of these pursuits requires a different set of actors and a different set of changes in the regulatory and financing environment. Addressing the needs of the population as a whole will be more difficult than helping individuals, because it requires more structural changes and will mobilize stronger opposition from stakeholders in the status quo. But a new administration has opportunities to help on both agendas.

Improving individual care

The new administration should use the Institute of Medicine’s six dimensions of quality to set its aims for improving individual health care. Most

care providers, even large hospitals, still lack both the will and competence to improve the processes of care, and most health care boards of trustees and senior executives view the improvement of care as a strategic agenda at best secondary to maintaining revenues and stabilizing public reputation. The federal government should therefore push hospitals, nursing homes, and office-based practices to make the changes in care processes they need to achieve much higher levels of reliability and teamwork, and to invite patients and families much more into positions of influence and control over their own care.

The next president in his first term should set specific goals that include:

1. Reducing medically induced injuries to patients in hospitals by a specific target amount. A 20 percent reduction in four years is probably technically achievable.
2. Measurably improving the delivery of evidence-based care for a list of major chronic and acute illnesses in all relevant settings.
3. Supporting and expanding the use of shared decision-making supports for patients and families facing difficult choices among treatment options.
4. Identifying and reducing overuse of specific, ineffective health care procedures in hospitals and other acute care settings.

These overall goals for improvement cannot be achieved through a single policy change or action on the part of the federal government alone. A range of specific policies and regulatory actions, described later in this chapter, can increase the odds of success.

Improving care across the population

Improving individual care is important, but it cannot solve the concertmaster problems of better health outcomes and lower costs. The best long-term strategy for affordability—and making universal health care economically feasible—is to improve care systems. This means focusing on changes that affect structures and processes of care for the entire population—patterns well beyond individual, case-by-case improvements.

Systematic factors and preconditions drive excess treatment, leading to avoidable and wasteful costs. These factors include inadequate sec-

ondary prevention of complications in chronic disease care; over-reliance on technologies that are unproven or have very marginal value; administrative waste due to complexity and variation in billing, licensure, and record-keeping; the outmoded, defect-ridden, and inefficient paper medical record; and inefficiencies and inequities in the malpractice liability system.

Oversupply and fragmentation—the absence of integrated structures, processes, and behaviors, especially in the care of the chronically ill—are the two overriding characteristics that explain many of the problems with the current U.S. health care system. And neither can be mitigated substantially by focusing on the care of individuals alone.

Health providers can achieve sensible cost reductions while maintaining or improving the care experience of patients and families, but incentives are not aligned to get that done. One important example is the very high rate of readmission of Medicare patients who are discharged from the hospital after experiencing congestive heart failure. Congestive heart failure is the most common reason for admission among Medicare beneficiaries—almost 1 million admissions per year—and about 40 percent of the congestive heart failure patients discharged are readmitted within 90 days. This is nearly pure waste from the viewpoint of both patients and science.

Clinical researchers have known for over a decade that a well-designed chronic care support system can reduce that readmission rate by over 85 percent. The potential cost savings for Medicare would be enormous, and patients and families would be better off in terms of health and functional status. Achieving this result requires a combination of team-based care, home health care outreach, patient and family education, simple forms of home-based monitoring, proper pharmaceutical management, and self-care skills. All of this could be arranged by a hospital, in theory, if it cooperated and shared information with local physicians and agencies, and extended its efforts to the period after discharge. The result would be cost reductions for Medicare, better health for patients, and a major revenue loss to the hospital.

The catch is that more effective a hospital is, the worse its finances would become. Beds would lie empty, whereas hospital leaders and business plans are currently rewarded financially for keeping beds full by increasing admissions. Some hospitals, despite this toxicity of reimbursement, work hard on better chronic disease care and secondary pre-

vention. But they are too few. Physicians in primary care may focus more on these goals, but they usually lack the system leverage to execute chronic disease care properly, and their payment tariffs do not reward large investments in patient education or the hiring of allied health professionals to do the same.

Even more to the point, suppose that the Dartmouth research group is correct in determining that a lot of care—perhaps \$3,000 of per capita Medicare expenditures in the highest quintile areas each year—is supply-driven and does not help patients.⁶ That care is waste from Medicare’s viewpoint, but it is income for the professionals who, of course, believe that it is helpful care. Without a budget constraint or some sense of limitation, curiosity remains low about what care helps and what care does not help. This is not just a problem of excellence in individual care; it is a structural problem in the design of the financing and delivery system itself. When it is not in health provider’s interest to remove waste, they do not.

This lack of incentive, in our opinion, explains more than anything else why and how some European systems and a few U.S. systems are able to achieve better care at a far lower cost. Their structures and financing help them think and act in population terms. They can, and want to, integrate care across boundaries. They want to limit capital growth, rather than relying on it for revenue. They work with a sense of limited resources, and avidly seek to remove waste, because with capped resources, waste reduction is “internal” revenue, available for reinvestment. They can essentially harvest and reinvest the financial gains of reducing ineffective care. Public health investments and secondary prevention systems that avoid the need for high-technology services and hospital days become the “winners,” not “losers,” in these systems. In short, integrated care structures and population-based budgets provide the preconditions for far higher value and lower cost.

A strategy to address health quality must address the underlying payment incentives that influence clinical decisions. We must move away from treating only acute care needs and move to a more holistic approach. One recent framing of the needed social agenda is the so-called “triple aim”: improve care for individuals, improve the health of populations, and stabilize or reduce the per-capita cost of health care for the population.⁷

POLICY RECOMMENDATIONS

Improving individual care

Federal agencies need to improve care in the systems they oversee. The new administration should insist on, monitor, and fully support the continual improvement of care in all federally operated and sponsored health care organizations according to the IOM dimensions of quality. Specifically, a new administration should:

Strengthen oversight in Medicare and Medicaid. The new administration should support the expansion of the Centers for Medicare and Medicaid Services' quality improvement programs to designate, monitor, and technically support progress in hospitals, nursing homes, and physician practices toward specific and bold improvement targets. These should be reflected in the Quality Improvement Organizations' Scopes of Work. CMS should, in particular, set and monitor stringent standards for measuring and reducing patient injuries and complications, improving evidence-based care reliability, expanding patient-centered care practices, and reducing overuse of ineffective practices.

Encourage public-private payer cooperation. The federal government should support CMS' participation with the private sector in multi-payer coalitions and cooperatives to agree upon and together specify, enforce, and support care improvements. Strong administration leadership toward specific national improvement goals would be helpful in reducing the current chaotic situation, in which literally hundreds of priorities are created by a wide array of stakeholders.

One key barrier to setting goals at the national level is the number of entities that want to control priorities. Funding the National Quality Forum makes sense in pursuit of a more rational and better-harmonized set of goals and metrics. The federal government should provide stable funding for a 10-year horizon to the National Quality Forum to certify, develop, and help deploy system-level measures of health care quality, outcomes, and costs, including per capita costs, in full cooperation with the Agency for Healthcare Research and Quality. Initial priorities for improving U.S. health care can be guided, at least in part, by NQF's

recent “National Priorities Partnership,” which specifies goals with the endorsement of 28 NQF stakeholder groups.

Increase funding for AHRQ and expand its role in quality research and development. The new administration should increase budgeted support for the Agency for Healthcare Research and Quality to \$1 billion. The administration should designate AHRQ as the primary federal center for developing new metrics on health care quality, safety, reliability, outcomes, and costs; conducting research on the comparative effectiveness of treatments and procedures; and leading a major research program into redesigning health care systems and processes to achieve better individual care, better population health, and lower per capita costs. AHRQ should also continue to improve the annual National Quality Report and the National Health Disparities report, which should be received formally by the president and Congress, and responded to publicly each year by the president.

Hold hospital boards legally accountable for quality and safety improvements. The new administration should work with Congress to consider enacting a firm legal and regulatory requirement that hospital boards would have to “continually improve patient care quality and safety.” This would be equivalent to existing requirements for proper financial stewardship, subject to penalties for failure to discharge it properly, and should include mechanisms for its enforcement, or at least as a condition of participation in Medicare.

Support no-fault malpractice demonstration projects. The federal government should support statewide experiments in no-fault malpractice insurance, subject to the conditions of full disclosure, prompt compensation, apology, and systemic learning and improvement. No-fault malpractice policy would adapt to health care settings the basic principles of worker compensation programs, which focus less on judicial contests and findings of fault than on administrative procedures for prompt and fair compensation of injured parties. This would, admittedly, be a reach for the federal government, since malpractice liability is largely a matter of state-level policy, not federal policy. The new administration should therefore seek demonstration authority under which the federal government can try to help or influence a trend toward no-fault regimes.

Improving care across the population

The strongest lever available for truly altering our health care quality is moving away from paying providers on a transactional basis, and changing payments so that provider incentives align with better and more efficient care, especially for people with chronic illnesses.

The United States has experimented modestly in the past with integrated care systems under population-based budgets. The emergent format was the Health Maintenance Organization, or HMO, which was originally conceived by the founders of classical models such as Kaiser-Permanente in California, Group Health Cooperative of Puget Sound, and Health Partners in Minneapolis. In their heyday, which was approximately the 1960s and 1970s, these classic models significantly outperformed the fragmented majority of plans.

HMOs' popularity declined not because the classical HMO models failed at first, but because the HMO label was expanded in use to include a collection of restrictive, insurance-based models which did not really manage care, but managed rules and restrictions and the flow of money. The good forms of managed care, like the Kaiser Permanente-type model, still exist, but these programs are the exception rather than the rule. Less integrated health plans have difficulty changing the behavior of physicians and hospitals because they pay on an episodic basis. At worst, they may emphasize a restrictive role for primary care physicians, making them gatekeepers to limit care and keep costs low, rather than care coordinators with responsibility for making sure patients' providers are coordinated such that each individual patient receives efficient, timely, and effective treatment. The growth in these less integrated plans reflects the difficulties in aligning payment incentives to produce quality care.

High-performing health care systems in other developed nations tend, by and large, to “manage care” in the original sense: plan and coordinate it, maintain flexibility as to how resources are used, measure success primarily through health and satisfaction, be subject to overall budget limits, and unify the experience of patients across boundaries.

This level of coordination will be difficult to achieve given our current fragmented system with many different payers and many individuals managed by several different payers. Nonetheless, policy changes could be made to promote a fee-for-service model that contains strong case-management and disease-management tools and that financially rewards pro-

viders for services that improve quality. More integrated payment models are also needed in which providers, hospitals, and other health care providers are paid through means other than for episodic care. These changes are fundamental to any quality improvement effort.

Assuming major payment changes (see chapter 4 on payment for more information), the new administration will have to take a larger role in supporting wise and useful standardization in the private care system, a role largely played today by the states. Three ideas underlie all of these proposed changes: strengthening information technologies, especially electronic patient records, so that they become our nation's norm, not the exception; developing systems of integrated care for people with chronic illness across the entire continuum of care; and aligning financial incentives and payment streams to encourage, reward, and support effective care of the chronically ill. To accomplish these goals, the new administration should undertake five new initiatives:

Simplify and standardize health care administration. Standardizing codes and billing across industries would save much time and reduce errors and administrative costs for the government, insurance plans, and health care providers. Providers and patients would have a better understanding of what each plan covers and what payments they can expect. Billings should be done electronically rather than through paper to reduce costs and errors. These changes would also greatly reduce the amount of staff time devoted to deciphering each payer's billing practices so that providers could focus more of their time and attention on delivering patient care.

Developing electronic medical records that are accessible by a patient's treating physician or facility will be an important asset in improving quality. We ultimately need a system that guards confidentiality and is under the patient's control, but that is still accessible, with the patient's permission, to anyone treating the patient—physicians, providers, facilities, pharmacies, and others. Systems will achieve better dividends if an emergency department doctor does not have to rely on a patient's memory of treatment, or if uniform medical records follow chronically ill patients wherever they seek care. Electronic health records would aid in reducing duplicative or conflicting treatments and decreasing the likelihood of prescribing incompatible medications, avoiding adverse drug events, and reducing medication errors.

Support large-scale chronic disease registries. The federal government should promote the development and deployment of large-scale chronic disease registries that would, with major safeguards for confidentiality, allow health care providers to better manage patients across time and among institutions, as well as assess progress in clinical outcomes and total costs. Requiring electronic medical records could facilitate this change.

The new administration will need to develop a system to address privacy concerns over collecting these statistics. Private plans also object to data collection because of the administrative costs associated with managing it while ensuring confidentiality. The White House and Congress could use positive or negative incentives to obtain these data from private insurers, Medicare, Medicaid, and other federal health care programs.

Implement comparative effectiveness studies for treatments. The new administration should ensure that providers have the most up-to-date information about clinical research and effective treatments by establishing a neutral entity, free of commercial and political pressure, whose mission would be to compare procedures, drugs, and other treatments and to determine which course of treatment is most effective for different conditions. The federal government would also need to help and encourage providers to use the most effective treatments, and not simply the ones with the highest reimbursement levels or those believed, without evidence, to be more effective than less costly alternatives.

A critical component in a system using comparative effectiveness research is to assure that clinicians are educated about differences among procedures, drugs, and treatment alternatives, and that their management strategies reflect the most current knowledge. One of the major causes of health disparities among racial minorities stems from beneficiaries not getting adequate treatment at the right time—not getting needed preventive care, not being screened for conditions, and not getting the proper treatment when they do receive a diagnosis. This difference can be partially explained by a disproportionate lack of insurance, but racial disparities also persist among the insured.⁸ Educating providers about appropriate treatments and enforcing clinical standards would help narrow this care gap.

Develop a national initiative to reduce preventable hospital admissions and readmissions. The new administration should work with the Centers for

Medicare and Medicaid Services to develop and launch an initiative to reduce preventable hospital admissions and readmissions, and work with hospitals to help mitigate the financial burden of reaching this goal. Bottom-line financial losses will undoubtedly occur as hospitals demonstrably and measurably reduce patient visits for chronic illness through better home care, outreach, prevention, and coordination of services. The federal government may therefore need to step in for a period of time to protect the bottom-line financial losses they would thereby experience—protecting, for example, their absolute profits, but not their top-line revenues.

Expand hospice care through support to community-based programs. End-of-life care too often involves expensive treatments that do little to improve the quality of life. The federal government should aim for a major shift in patterns of end-of-life care throughout America, starting with a proper redesign of the of Medicare and Medicaid payment systems to improve dignity, comfort, family involvement, pain control, and the match between the care people want and the care people get in the last stages of their illnesses. Implementing such a policy would require an educational shift to move away from employing heroic, and often futile, efforts at the end of life. Effective programs for superb care at the end of life can reside both within appropriate health care organizations and in community and social service agencies.

KEY CHALLENGES

Improving individual care

A series of relatively feasible policy changes can improve care for individuals, especially hospitalized patients. Payment, public reporting, and technical assistance to hospitals could all focus on goals for improving patient safety and the reliability of evidence-based care. Much of this is already underway, led by the Centers for Medicare and Medicaid Services and progressive purchasers, among others.

The federal government could help accelerate quality of care improvements through increased funding, which is a perennial issue, and helping to shift political will. These changes are attainable with federal leadership.

Few major organizations would be losers in this pursuit, although hospitals and clinicians will have to change their behavior.

Many hospitals and other health care providers complain about the proliferation of performance metrics mandated or requested by both public and private stakeholders, such as payers, employers, accreditation bodies, government agencies, and consumer groups. For hospitals alone, the list of such measures now numbers many hundreds and is growing steadily, and the internal costs of managing reporting requirements is high. The stakes, and the worries, increase as payment gets linked to such performance metrics. One way to constructively mitigate these concerns and the associated political pushback is to try to progressively “harmonize” these goals and metrics into a smaller set of focused and important indicators of health care performance. Harmonization could decrease the cacophony, reduce the total costs of measurement, and focus energy on the most important goals for improvement.

Holding hospital boards legislation accountable for quality and safety improvements would, of course, be likely raise to concerns from the American Hospital Association and other trade groups. But, the questions remain: What happens to a board today that fails in due diligence to financial stewardship? And can we spread the same thinking to the requirement of the diligent stewardship of patient care quality and safety as a requirement of proper governance?

Improving care and health across the population

Improving quality for the entire health care system across the continuum and aiming for an overall healthier population requires more significant structural changes. The needed policy initiatives create losers, as well as winners, mainly as acute care needs decline in favor of primary care and integrated services. Specialist and acute-care provider opposition to these proposals could therefore be strong. If structural changes are not properly implemented, they could easily lead to a cost shift from Medicare to providers, plans, or both, and they would fail to improve the quality of care.

The most serious threat to health quality improvements would be “gaming” by plans and providers, who could recruit and enroll members who need the care least, leaving expensive subgroups to others, a problem that is already far too common in some Medicare Advantage plans. Policies

aimed at restructuring and improving care for populations will require more effort to implement, but could fundamentally change both the true costs and quality of our health care delivery if successful.

Trying to simplify billing procedures would generate some opposition because of the costs associated with making changes. Convincing all payers to move to a uniform system will take time, money, and political will. The federal government will need to offer some incentives or support to private payers to make these changes. Since states primarily regulate private insurance, Congress could just require these changes without positive incentives, but the industry would oppose this. Congress could have the Department of Health and Human Services develop model billing practices and give private insurers financial incentives such as tax credits to use national standards.

There is emerging consensus that electronic health records and comparative effectiveness are needed to improve health care quality, but there is also much concern about the very slow pace of actual implementation (see chapter 1 on infrastructure for more information on electronic health records). Privacy concerns will need to be addressed to implement either electronic health records or enhanced chronic illness registries. Again, in comparative effectiveness research, there will be winners (those whose procedures, drugs, or offered services are found to be most clinically effective) and losers (those whose services are found to be less effective), and thus we can expect vigorous opposition from at least some quarters to a comprehensive approach.

CONCLUSION

The United States has the largest economy in the world and the highest per capita health care costs, yet it consistently scores below other industrialized nations across several quality measures such as wait times to see physicians, life expectancy, mortality rates, coordination for chronic care, and deaths per capita from medical errors. We should not be outspending every country and still falling at or near the bottom across important quality measures. The American health care system needs a better return on its investment. Changing the way health care is conducted in our fragmented system will be difficult, and will require significant changes that

demand political will. Nonetheless, if the new administration can meaningfully manage opposition to these systematic changes, it would radically improve our health care system.

ENDNOTES

- 1 Organization for Economic Cooperation and Development, *Health Data 2006*, October 2006. OECD member countries include Australia, Austria, Belgium, Canada, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Korea, Luxembourg, Mexico, The Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Spain, Sweden, Switzerland, Turkey, United Kingdom, and the United States.
- 2 E.S. Fisher, D.E. Wennberg, T.A. Stukel, D.J. Gottlieb, F.L. Lucas, E.L. Pinder. "The implications of regional variations in Medicare spending: Part 1: The content, quality, and accessibility of care," *Annals of Internal Medicine* 138 (2003):273-287.
- 3 Institute of Medicine, "Crossing the Quality Chasm: A New Health System for the 21st Century" (Washington, DC: National Academies Press, 2001).
- 4 OECD, *Health Data 2006*, October 2006; The Commonwealth Fund Commission on a High Performance Health System, "Why Not the Best? Results from the National Scorecard on U.S. Health System Performance, 2008" (The Commonwealth Fund, July 2008). World Health Organization, *World Health Report 2000*.
- 5 The Commonwealth Fund Commission on a High Performance Health System, "Why Not the Best? Results from the National Scorecard on U.S. Health System Performance."
- 6 Fisher et al, "The implications of regional variations in Medicare spending: Part 1: The content, quality, and accessibility of care."
- 7 D.M. Berwick, T.W. Nolan, J. Whittington, "The Triple Aim: Care, health, and cost," *Health Affairs* 27 (2008):759-769.
- 8 J.Z. Ayanian, I.S. Udvarhelyi, C.A. Gatsonis, C.L. Pashos, A.M. Epstein, "Racial differences in the use of revascularization procedures after coronary angiography," *Journal of the American Medical Association* 269 (1993):2642-6; A.N. Trivedi, A.M. Zaslavsky, E.C. Schneider, J.Z. Ayanian, "The relationship between quality of care and racial disparities in Medicare health plans," *Journal of the American Medical Association* 296 (2006):1998-2004; J.Z. Ayanian, J.S. Weissman, S. Chasan-Taber, A.M. Epstein, "Quality of care by race and gender for congestive heart failure and pneumonia," *Med Care* 37 (1999):1260-9.

Center for American Progress



The Center for American Progress is a nonpartisan research and educational institute dedicated to promoting a strong, just and free America that ensures opportunity for all. We believe that Americans are bound together by a common commitment to these values and we aspire to ensure that our national policies reflect these values. We work to find progressive and pragmatic solutions to significant domestic and international problems and develop policy proposals that foster a government that is “of the people, by the people, and for the people.”



The Institute on Medicine as a Profession seeks to shape a world inside and outside of medicine that is responsive to the ideals of medical professionalism. IMAP supports research on the past, present, and future roles of medical professionalism in guiding individual and collective behavior. It aims to make professionalism in medicine relevant to physicians, leaders of medical organizations, policy analysts, public officials, and consumers.