

P E R S P E C T I V E

The Promise Of Health Care Cost Containment

In the face of rising health care spending, we must redouble our efforts to establish value for that spending.

by **Alan Garber, Dana P. Goldman, and Anupam B. Jena**

ABSTRACT: Today the United States may be on the cusp of changing from a cost-unconscious health care system to one that seeks value. The consequences of adopting a value-based approach to coverage have not been well studied; however, several broad strands of the health literature suggest that spending could be reduced by as much as 30 percent without adversely affecting health. [*Health Affairs* 26, no. 6 (2007): 1545–1547; 10.1377/hlthaff.26.6.1545]

THE DISSEMINATION of new medical technologies is often considered to be the principal controllable driver of health care spending growth.¹ Yet the very technological innovation that propels spending, it is believed, also confers enormous benefits. According to some estimates, in the twentieth century, the economic value of improvements in survival in the United States far outweighed the costs of medical care and nearly equaled measured gains in all other aspects of material well-being.² Reconciling these alternative views of the role of technology is central to the debate about how to control health spending growth.

There can be little doubt about the great value of medical technology when put to its best use. Diagnostic tests can lead to earlier and more effective treatment, but they can also lead to the diagnosis of clinically undetectable but costly “pseudo-disease,” which left undetected and untreated would have no bearing

on physical well-being.³ Many interventions to prevent heart disease are dramatically effective when used by people at high risk, but the benefits are much less pronounced, and the adverse effects just as great, among people at lower risk of developing heart disease. Expensive cancer treatments are often very effective when used as first-line therapy for some cancers but of very limited effectiveness in other situations, such as salvage therapy for treatment-resistant cancer. Regulatory approval to market a drug, and coverage decisions, are often based on evidence of effectiveness in clinical situations when the intervention is most likely to be effective. Following adoption, however, interventions disseminate well beyond the settings in which their impacts have been proven.

The variability in benefits that different patients receive from similar interventions is at the heart of the conflicting views of the value of medical technology. A medical intervention

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can greatly improve outcomes among a limited number of patients, while offering minimal or no benefits to others, yet on average be seen as highly beneficial. In the language of economics, the health benefits on average can be great while the marginal benefits may be much less than the marginal costs, or even negative. Because average benefit can be large even when much—even most—of the use is grossly inefficient, average benefit is a misleading measure of efficiency.

The risk of aggressive efforts to eliminate inefficiency is that they may compromise high-value care, if they are oversimplified or excessively blunt. However, there is ample empirical evidence to suggest that well-designed cost containment strategies can avoid such risks. Perhaps the strongest and earliest such evidence came from the RAND Health Insurance Experiment (HIE), which randomized families to health insurance plans of varying generosity.⁴ One of the HIE's main findings was that families in the least generous plan (95 percent coinsurance) spent nearly 30 percent less on medical care, with little or no difference in health. If we were to apply this lesson to the nearly \$1.5 trillion now spent on health care in the United States, the reductions in spending would be remarkable.

The same study, however, also struck a cautious note. The HIE examined many medical outcome measures in various subgroups of enrollees. Although there was not compelling evidence that higher cost sharing led to worse health outcomes, low-income participants who were in poor health appeared to be more vulnerable than others to adverse outcomes. For example, poor people with high blood pressure had slightly higher mortality rates if they had high copayments than if they didn't. In addition, the HIE found that participants in the high-copayment group were as likely to reduce "appropriate" as "inappropriate" care, as defined by groups of medical experts. Numerous other studies, such as the work on regional

variation in the use of medical care, have found that greater utilization is not associated with better health outcomes. Elliott Fisher and colleagues have demonstrated that end-of-life spending by Medicare beneficiaries varies widely across regions. Enrollees in higher-spending regions receive more care but do not appear to live longer or otherwise experience better health outcomes than their enrollees in other regions.⁵ Katherine Baicker and colleagues obtained similar results for the use of

caesarean sections across counties: Areas with high use (and presumably spending) perform more C-sections on healthy mothers than is the case in other areas, with no beneficial effects on either maternal or neonatal mortality.⁶

To move from these empirical findings to policy requires not only a good understanding of the effectiveness of care but also insight into the political and financial barriers to adoption of efficient care, as well as the ability to implement changes in clinical practice. Technology evaluation efforts have customarily focused on the provision of information to control adoption of new, expensive technologies and invasive surgical procedures. These are logical targets for cost containment because it is easier to control the adoption of a new technology than to cut back on the use of one that has already been disseminated widely, and also because even slight reductions in rates of inappropriate use of expensive procedures generate substantial savings.

Payers interested in delivering value will feel strong pressure to ensure not only that the care they cover improves health, but also that the incremental benefits outweigh the costs. In a controversial ruling, the U.K. National Institute for Health and Clinical Excellence (NICE) determined that the Alzheimer's medication Aricept did not meet this criterion, even though it might have had clinical benefits in early-stage Alzheimer's. Critics of the coverage decision argue that Aricept and other drugs in its class had important benefits that

“Medical technologies should not be covered whose incremental costs exceed the benefits.”

were omitted from the cost-effectiveness model.⁷ Although further scrutiny of the NICE determination may or may not confirm its initial determination, two lessons are clear: (1) Medical technologies should not be covered whose incremental costs exceed the benefits, and (2) the value individuals place on health is sufficiently high that careful attention must be paid to accurately determining the true costs and benefits of technologies under consideration.

Today the United States may be on the cusp of changing from a cost-unconscious health care system to one that seeks value. Whether this is operationalized in formal cost-effectiveness analyses for coverage decision making or in other forms, such an effort will require better information. The consequences of adopting a value-based approach to coverage have not been well studied. If 30 percent of care is provided inefficiently, because the care either is ineffective, is delivered in an inefficient manner, or simply represents care of little value, and if policy changes curtail such care, the financial consequences will be enormous. The effects on health could be minimal but are not known with certainty. The HIE showed that spending can be reduced by 30 percent with limited impact on health; the quality literature suggests that 30 percent of care delivered is inappropriate; the variations literature suggests that there is a 30 percent difference in end-of-life spending across regions. So the potential to reduce spending is certainly there.

However, it is important to emphasize that a broadly applied cost-effectiveness rule could increase spending in some circumstances, given the number of future technologies expected to increase costs but also bring substantial health improvements.⁸ To get to greater efficiency in health care, we will need a more serious commitment to funding research on appropriate care and on the evaluation of medical technologies, and we will need to adopt health care practices that promote value. Perhaps in the current political environment, it is time to redouble our efforts to promote value in health care.

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NOTES

1. J.P. Newhouse and the Insurance Experiment Group, *Free for All? Lessons from the RAND Health Insurance Experiment* (Cambridge, Mass., and London, U.K.: Harvard University Press, 1993); and D.P. Goldman et al., "Consequences of Health Trends and Medical Innovation for the Future Elderly," *Health Affairs* 24 (2005): r5-r17 (published online 26 September; 10.1377/hlthaff.w5.r5).
2. W.D. Nordhaus, "The Health of Nations: the Contribution of Improved Health to Living Standards," in *Measuring the Gains from Medical Research: An Economic Approach*, ed. K. Murphy and R. Topel (Chicago: University of Chicago Press, 2003); K.M. Murphy and R.H. Topel, *The Value of Health and Longevity* (Chicago: George J. Stigler Center, March 2005); and D.M. Cutler and M.B. McClellan, "Is Technological Change in Medicine Worth It?" *Health Affairs* 20, no. 5 (2001): 11-29.
3. E.S. Fisher and H.G. Welch, "Avoiding the Unintended Consequences of Growth in Medical Care: How Might More Be Worse?" *Journal of the American Medical Association* 281, no. 5 (1999): 446-453.
4. Newhouse et al., *Free for All?*
5. E.S. Fisher et al., "The Implications of Regional Variations in Medicare Spending, Part 2: Health Outcomes and Satisfaction with Care," *Annals of Internal Medicine* 138, no. 4 (1999): 288-298; and E.S. Fisher et al., "The Implications of Regional Variations in Medicare Spending, Part 1: The Content, Quality, and Accessibility of Care," *Annals of Internal Medicine* 138, no. 4 (2003): 273-287.
6. K. Baicker, K.S. Buckles, and A. Chandra, "Geographic Variation in the Appropriate Use of Cesarean Delivery," *Health Affairs* 25 (2006): w355-w367 (published online 8 August 2006; 10.1377/hlthaff.w5.355).
7. National Institute for Health and Clinical Excellence, *Written Evidence*, Pub. no. HC 503-II, 17 May 2007, pp. 27-34, <http://www.publications.parliament.uk/pa/cm200607/cmselect/cmhealth/503/503ii.pdf> (accessed 18 September 2007).
8. Goldman et al., "Consequences of Health Trends."