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REFORMING HEALTH CARE

Basing Health Care on Empirical Evidence

by Jill Bernstein, Deborah Chollet, and Stephanie Peterson

Federal health reform emphasizes the development of evidence-based practice to improve the quality and effectiveness of health care and reduce unnecessary spending. Evidence-based practice uses findings from comparative effectiveness research, which compares the results of alternative treatments to identify what works best. Moving evidence into practice, however, requires developing new information, reporting systems, and approaches to provider and consumer education. This brief reviews initiatives under way to put evidence into practice. While many of these initiatives demonstrate great potential for quality improvement, and some demonstrate potential for cost savings, their results can differ among care settings, localities, and patient populations.

The Evidence Base Is Growing

Interest in evidence-based medicine has grown in both the public and private sectors with rising concern about the high cost and uneven quality of care.^{1,2} However, the evidence base to help health care consumers, providers, and others make informed choices among treatment alternatives is limited, largely due to the difficulty and cost of conducting good research comparing the effectiveness of tests, procedures, and treatments.^{3,4,5}

In 2009, the Obama Administration sought new federal resources to address this problem. The American Recovery and Reinvestment Act of 2009 (ARRA) allocated \$1.1 billion over two years to expand comparative effectiveness research at the Agency for Healthcare Research and Quality (AHRQ) and the National Institutes of Health (NIH). ARRA established

ABOUT THIS SERIES

This brief is the third in a series highlighting issues related to health care reform that policymakers may want to consider as they implement the federal health reform law. The list of forthcoming titles is on page 3. For more information, contact Deborah Chollet at dchollet@mathematica-mpr.com.

a federal coordinating council to recommend research priorities and create a strategic framework for research activities, and it charged the Institute of Medicine with developing a list of 100 research priorities for funding. These organizations released their recommendations in June 2009. ARRA directs the secretary of the U.S. Department of Health and Human Services (HHS) to consider both sets of recommendations in targeting research funds.^{6,7}

These ARRA initiatives complement the efforts of various federal, state, and private-sector organizations pursuing comparative effectiveness research and projects to foster evidence-based practice.⁸ For example:

- Together with other federal agencies, such as the Veterans Health Administration (VHA) and NIH, AHRQ has long been involved in developing and disseminating comparative effectiveness research. In 2005, AHRQ established its Effective Health Care program, which focuses on interventions for people with serious, often chronic, health problems enrolled in Medicare, Medicaid, and the Children's Health Insurance Program.⁹ Research institutions and health plans across the country participate in AHRQ Centers for Education and Research.¹⁰
- Private-sector organizations, some federal agencies, and a number of states have adopted programs that link coverage or payment for diagnostic tests, treatments, or technologies to evidence of effectiveness. For example, the Drug Effectiveness Review Project

(DERP) at Oregon Health Sciences University, a collaborative partnership among states and other government and nonprofit organizations, conducts evidence-based reviews to help state Medicaid programs make decisions about which drugs to cover and under what circumstances.¹¹ VHA and the Department of Defense also conduct comparative effectiveness assessments to support formulary and pricing decisions.¹² Some states have developed independent programs to assess scientific evidence, in order to help make the purchasing of proven, cost-effective care more consistent across state agencies.¹³

- Some private-sector health plans have developed “value-based” benefit designs that reward consumers and providers for choosing more effective service and treatment options.^{14, 15, 16}

Better Care at Lower Cost

Research conducted in the United States and other countries indicates that evidence-based practice can increase medical effectiveness, improve the quality of care, and reduce cost. For example:

- A recent study comparing alternative treatments for stable coronary artery disease found that patients treated with only a drug regimen had rates of survival and heart attacks similar to those of patients who, in addition, had angioplasty and insertion of a stent.¹⁷ Other research has compared the effectiveness of newer, more expensive drugs with older ones; examined whether diagnostic tests increase the likelihood of earlier detection of treatable conditions; and examined whether surgical procedures reduce short- or longer-term mortality, compared with alternative treatments.¹⁷
- Research on medical practice patterns and patient outcomes in Medicare has concluded that more conservative use of services for some prevalent conditions may both improve care and reduce spending.¹⁷ Medicare spending—and perhaps all health spending in the United States—might be cut by about 30 percent if the more conservative practice styles used in the lowest spending one-fifth of the country could be adopted nationwide.¹⁸

Evidence-based practice may not always reduce cost, however.¹⁹ While evidence-based practice may decrease the inappropriate use of services, it may increase delivery of services that had been underused

and require new resources for care coordination, monitoring, patient counseling, and provider and consumer education.

Also, in areas of the country in which medical providers already deliver care efficiently, new efforts to encourage evidence-based practice may have little impact on quality and cost. For example, the potential for Medicare savings from more conservative evidence-based medicine in the Northwest may be less than in many areas of the South or Northeast, where per capita use of Medicare services is higher.

Resource Needs

Developing evidence-based practice requires significant effort, even when the comparative effectiveness of medical care—when, where, and how best to use it—is known.²⁰ For example, new education and information programs may be needed to help providers and consumers understand the reasoning behind decisions that affect their treatment options.²¹ Providers also need training and technical assistance to help them change their practice patterns.²² In general, implementation efforts that are sustained, coordinated, and accountable are more likely to succeed because they send consistent signals to practitioners. Such efforts require sufficient and stable resources.²³

Considerations for Policymakers

Health care experts widely view the development of evidence-based practice as essential to improving health care quality and efficiency. The Patient Protection and Affordable Care Act (P.L. 111-148) or ACA, enacted in March 2010, embraces this approach. ACA establishes a private, nonprofit Patient-Centered Outcomes Research Institute to identify national priorities for health outcomes research. ACA charges this institute with fostering research comparing the effectiveness of health treatments and strategies—helping to coordinate and reinforce independent and collaborative efforts (such as DERP) among state, regional, and national organizations involved in comparative effectiveness research and the implementation and evaluation of evidence-based practice.

As major buyers of health care, states can play a prominent role in promoting evidence-based practice and minimizing burden on providers. In particular,

as Medicare focuses increasingly on incentives for evidence-based practice when comparative effectiveness research strongly supports it, state policymakers can build consistent incentives in Medicaid and other state-administered programs and health plans, and also engage private insurers in these efforts. By coordinating these efforts across payers, the states can play a pivotal role in building consistent incentives to improve the quality and efficiency of care—a goal of all stakeholders in health care reform.

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Notes

¹For example, recent reports from the Congressional Budget Office (CBO) and the Medicare Payment Advisory Commission (MedPAC) have urged that reforms include a focus on more effective health care delivery. In its June 2007 report, MedPAC observed, “There is no independent entity in the U.S. whose sole mission is to compare the benefits, risks, and costs of alternative services and make this information publicly available. . . . [Such research] is costly to generate and sponsors have difficulty recouping the costs of producing the research because other users will not pay to use the research once it is publicly available.” See Miller, M.E. “Producing Comparative Effectiveness Information.” Statement Before the Subcommittee on Health, Committee on Ways and Means, United States House of Representatives, June 12, 2007. See also Congressional Budget Office. “Research on the Comparative Effectiveness of Medical Treatments: Issues and Options for an Expanded Federal Role.” Washington, DC: CBO, 2007; Orszag, P., and P. Ellis. “The Challenge of Rising Health Care Costs—A View from the Congressional Budget Office.” *The New England Journal of Medicine*, vol. 357, no. 18, November 1, 2007, pp. 1793–95; and Medicare Payment Advisory Commission. “Report to the Congress: Promoting Greater Efficiency in Medicare.” Washington, DC: MedPAC, June 2007.

²In the private sector, recent policy statements regarding comparative effectiveness research include those of the Blue Cross and Blue Shield Association, available at [<http://www.bcbs.com/issues/transparency/background/improving-health-care-value.html>]; the Advanced Medical Technology Association, available at [<http://www.advamed.org/NR/rdonlyres/66E43D28-1F5F-4028-99CC-256A7BE25D53/0/AdvaMed CEPinciples22102407.pdf>]; the National Business Group on Health, available at [<http://www.aha.org/aha/content/2007/pdf/0704-uhp-nbgh.pdf>]; and the Alliance for Better Health Care, available at [<http://www.amcp.org/data/legislative/analysis/ABHC%20statement%20on%20clinical%20effectiveness.pdf>].

³Moon, M., B. Smith, and S. Gustafson. “Creating a Center for Evidence-Based Medicine.” MedPAC Report No. 08-1. Washington, DC: MedPAC, July 2007.

⁴Congressional Budget Office. “Research on the Comparative Effectiveness of Medical Treatments: Issues and Options for an Expanded Federal Role.” Washington, DC: CBO, 2007.

⁵RAND Corporation. “Analysis of Comparative Effectiveness,” 2010. Available at [<http://www.randcompare.org/analysis-of-options/analysis-of-comparative-effectiveness>].

⁶Institute of Medicine, Committee on Comparative Effectiveness Research Prioritization. *Initial National Priorities for Comparative Effectiveness Research*. Washington, DC: National Academies Press, 2009. See also Sox, H., and S. Greenfield. “Comparative Effectiveness Research: A Report from the Institute of Medicine.” *Annals of Internal Medicine*, vol. 151, no. 3, August 4, 2009, pp. 203–205.

⁷Federal Coordinating Council for Comparative Effectiveness Research. Report to the President and the Congress, June 30, 2009. Available at [<http://www.hhs.gov/recovery/programs/cer/cerannualrpt.pdf>].

⁸The volume and the range of cost of recent comparative effectiveness research are reported in AcademyHealth. *A First Look at the Volume and Cost of Comparative Effectiveness Research in the United States*. Washington, DC: AcademyHealth, 2009. Available at [http://www.academyhealth.org/files/FilesDownloads/AH_Monograph_09FINAL7.pdf].

⁹Agency for Healthcare Research and Quality (AHRQ). Effective Health Care Program homepage. Available at [<http://effectivehealthcare.ahrq.gov>].

¹⁰For example, the HMO Research Network in Seattle, in collaboration with the Group Health Center for Health Studies, is one of the participating AHRQ Centers for Education & Research on Therapeutics.

¹¹Hoadley, J., J. Crowley, D. Bergman, and N. Kaye. “Understanding Key Features of the Drug Effectiveness Review Project (DERP) and Lessons for State Policy Makers.” Washington, DC: National Academy for State Health Policy, 2006. Available at [<http://www.nashp.org/node/812>].

¹²Henry J. Kaiser Family Foundation. “Explaining Health Reform: What Is Comparative Effectiveness Research? Focus on Health Reform.” Menlo Park, CA: KFF, 2009. Available at [<http://www.kff.org/healthreform/upload/7946.pdf>].

¹³For example, Washington State initiated a Health Technology Assessment Program in 2006 to use clinical evidence to evaluate whether health services are safe, effective, and cost-effective. Using an open and transparent process that includes an independent clinical committee, the Health Care Authority had completed decisions on 13 technology assessments as of April, 2010, and another 8 were in progress. See Health Technology Assessment Program (HTA), Health Technology Assessment Findings. Available at [<http://www.hta.hca.wa.gov/assessments.html>].

¹⁴Silow-Carroll, A., and T. Alteras. “Value-Driven Health Care Purchasing: Case Study of Wisconsin’s Department of Employee Trust Funds.” Publication No. 1056. New York:

The Commonwealth Fund, 2007. See also Silow-Carroll, A., and T. Alteras. "Value-Driven Health Care Purchasing: Case Study of Minnesota's Smart Buy Alliance." Publication No. 1054. New York: The Commonwealth Fund, 2007.

¹⁵Chernew, M.E., A.B. Rosen, and M. Fendrick. "Value-Based Insurance Design." *Health Affairs*, vol. 26, no. 2, 2007, w195–w203. Web Exclusive. Available at [http://content.healthaffairs.org].

¹⁶See also the companion issue brief in this series: Bernstein, J., D. Chollet, and S. Peterson. "Financial Incentives for Providers and Consumers." Washington, DC: Mathematica Policy Research, forthcoming May 2010.

¹⁷Congressional Budget Office 2007.

¹⁸Fisher, E. "More Care Is Not Better: Regional Differences Show that Spending More Does Not Improve—and May Hurt—Patients. More Accountability May Help." Washington DC: National Institute for Health Care Management, January 2005.

¹⁹For example, evaluations of programs that apply evidence-based treatment protocols in treating patients with heart disease, diabetes, and asthma found that some generated no savings while others saved payers up to \$6.50 for each dollar they invested in treating serious chronic conditions, such as heart failure. See Dove, H., and I. Duncan. "Paper 3: Estimating Savings, Utilization Rate Changes, and Return on Investment: Selective Literature Review of Care Management Interventions." Schaumburg, IL: Society of Actuaries, 2005.

²⁰Santa, J., and M. Gibson. "Designing Benefits with Evidence in Mind." Employee Benefit Research Institute Issue Brief No. 290. Washington, DC: EBRI, February 2006; MedPAC 2008.

²¹Medicare Payment Advisory Commission. "Report to Congress: Medicare Payment Policy." Washington, DC: MedPAC, March 2006; Santa and Gibson 2006.

²²Medicare Payment Advisory Commission 2006.

²³Arguing for a national center on health care improvement, contractors to MedPAC emphasized the need to establish and maintain credibility with providers and consumers, and the link to stable funding. See Medicare Payment Advisory Commission 2006; Congressional Budget Office 2007.

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