

# Comparative Effectiveness Research:

## Informing Decisions and Improving Quality

Comparative effectiveness research (CER) is the study of methods to “prevent, diagnose, treat, and monitor a clinical condition or to improve the delivery of care” (IOM 2009). Its purpose is to assist consumers, clinicians, purchasers, and policymakers in making informed decisions that will improve health care at both the individual and population levels (IOM 2009). Most CER is funded by the U.S. Department of Health and Human Services (DHHS) and its agencies, including the Agency for Health Care Research and Quality and the National Institutes for Health. While CER is an established field, there is controversy related to the potential misuse of information developed from the research.

There are two main types of CER. Primary research is original research that generates new knowledge on the relative merits of one intervention versus another. Secondary research is synthetic. It brings together what is already known for the purpose of drawing conclusions about which intervention has the best outcomes under certain circumstances (Docteur and Berenson 2010).

Studies that inform decisionmaking have the potential to improve patient outcomes, as well as the quality and delivery of care, by providing answers to practical questions that providers and patients have about treatments and their relative effectiveness. The application of CER also has the potential to improve health system effectiveness. For example, over half of health care system expenditures are a result of physicians and patients seeking new, more expensive technologies in hospital care and physician services (O’Leary et al. 2010). Research may yield cost savings by determining whether newer, more expensive treatments are more effective than existing, less costly treatments, and by inducing providers to adopt more cost-effective practices (Docteur and Berenson 2010).

Despite its possibilities, there has been both technical and political controversy surrounding CER. Docteur and Berenson (2010) note that most concerns relate to the potential misuse of CER-generated knowledge that could, for example, result in rationing of expensive but effective treatments; promote “cookbook” medicine that does not account for individual clinical needs; or could impede development of technological

development in health care. Such concerns can be mitigated by establishing crosscutting priorities for research, highlighting the need for research in areas with important knowledge gaps, and assessing and coordinating research efforts (Docteur and Berenson 2010).

### RECENT FEDERAL INVESTMENTS IN CER

Both the American Recovery and Reinvestment Act of 2009 (ARRA) and the Patient Protection and Affordable Care Act of 2010 (PPACA) include CER provisions. ARRA increased the federal investment in CER by allocating more than \$1 billion to DHHS. It also established a Federal Coordinating Council to coordinate research activities within the federal government (Conway and Clancy 2009). The Institute of Medicine (IOM) was tasked with developing a broad set of recommendations for implementing CER using ARRA funds. Presented in June 2009, the report set out 100 research priorities, more than half of which address different aspects of the health delivery system in order to determine how to make services to patients more effective (Iglehart 2009).

The recently passed health reform legislation included several new provisions for CER designed to complement the work begun under ARRA. First, PPACA establishes the Patient Centered Outcomes Research Institute (PCORI), a nonprofit independent organization, to replace the council established in ARRA. It also allocates additional research funds and establishes a Patient-Centered Outcomes Research Trust Fund to support PCORI (AAMC 2010).

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*CER identifies what works best for which patients under what circumstances (IOM 2009).*

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These recent federal investments have the potential to expand the scope of CER in the United States and create greater concordance between what is known and current health care practice. The key challenge, however, will be translating findings from research into practice. In fact, the IOM (2009) notes that “ultimately, research...will not yield real improvements unless the results are adopted by health care providers and organizations and integrated into clinical practice.” To help integrate CER into clinical decisionmaking,

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the IOM recommends including consumers, patients, and caregivers in strategic planning, priority setting, research proposal development, peer review, and dissemination to ensure that the research is practical and relevant to the everyday health care delivery needs of patients. CER should focus on questions that both patients and providers have in order to ensure it is actually utilized in clinical decisionmaking (IOM 2009). In addition, the IOM recommended that more efficient ways of collecting, disseminating, and using CER data be developed.

### **BUILDING SUPPORT FOR CER**

Foundations can play a vital role in ensuring that CER is understood by providers, policymakers, and the public, as well as application of the evidence base in patient and provider decisionmaking. Although changing medical practice is a difficult and slow process, even if the evidence shows dramatic quality improvements, foundations also can support dissemination of research findings, demonstration, projects and replication.

Health funders have begun playing an important role in helping policymakers and other leaders understand the benefits and challenges related to CER. The Robert Wood Johnson Foundation, in partnership with the Urban Institute, developed a series of policy briefs for federal decisionmakers. Grounded in the evidence base, the papers are designed to provide timely analysis on issues being debated in Congress, including CER. The papers are a departure from the foundation's usual work: they are not tied to any one program or project, but instead examine global health system issues. As discussed in a recent Grantmakers In Health audioconference, the foundation took a risk in producing the papers. It had to stand behind its findings without the benefit of the external validation process provided by peer reviewed journals. The foundation also ran the risk of producing reports that could get caught up in the rhetoric of the health care reform debate (GIH 2010).

The California HealthCare Foundation is also involved in CER. It has provided state policymakers and other leaders with analysis of the major health care provisions within ARRA, including CER. The issue briefs, produced by Mannatt Health Solutions, examine whether state or other stakeholders should take action relative to specific ARRA health care provisions. An analysis of CER provisions provides information on key sources of funding and the allocation process, whether or not

matching funds will be required, eligibility, and requirements for funding. It also examines levels of funding that California may expect to receive (California HealthCare Foundation 2009).

Helping consumers access and interpret health information fits into the mission of many foundations. Health grantmakers can help make quality information accessible, support the development of information technology to collect and disseminate information, and support advocacy efforts to help consumers understand their health care choices and integrate quality into decisions.

Grantmakers In Health intern Gagan Jindal contributed to this article.

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