VALUE IN HEALTH 18 (2015) 355–357

Available online at www.sciencedirect.com

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COMMENTARY

Bringing Patient-Centered Outcomes Research to Life

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ABSTRACT

A substantial gap exists between medical evidence that is known and medical evidence that is put into practice. Although the Agency for Healthcare Research and Quality (AHRQ) has a long history of developing the content of evidence, the agency now pivots to close that gap by focusing on evidence dissemination and implementation. Achieving better health outcomes requires both the generation of new patient-centered outcomes research (PCOR) knowledge and the appropriate and timely implementation of that knowledge into practice. The Affordable Care Act provided funds to support both types of PCOR efforts, with AHRQ building on years of experience to advance research dissemination and implementation. This article describes the work the AHRQ has done, is doing, and will do in the future. To communicate PCOR evidence findings, AHRQ is currently synthesizing research findings into convincing collections of evidence that can be best taken up by clinicians, patients and caregivers, and policymakers. The future direction for AHRQ is to improve the context for evidence and practice improvement, thereby creating an environment receptive to PCOR. Toward this goal, AHRQ is actively engaging partners, such as professional societies and insurers, to make evidence central to decision making. In addition, AHRQ recently launched two programs that seek to both understand and encourage the use of evidence in clinical practice. Throughout these efforts, AHRQ will continually assess needs and adapt initiatives to ensure that PCOR translates into improved patient-centered health outcomes.

Keywords: dissemination, health care delivery, implementation, patient-centered outcomes research.

Nearly a million medical journal articles are published each year, yet the gap grows between what is known and what is put into practice. Occasionally, the medical community quickly adopts new research, particularly where demonstrable harm exists—as in using hormone replacement therapy for the prevention of cardiovascular disease [1]. Other times, it can take years even for compelling evidence to saturate clinical practice, as with beta-blockers after myocardial infarction [2]. Financial incentives, differing interpretations of results, cognitive biases, and inadequate use of clinical decision support have all been posited as reasons why research studies fail to change practice [3]. Patient-centered outcomes research (PCOR) evidence generation is necessary but not sufficient to produce what patients care most about—better health outcomes. Evidence needs to be put into practice.

Recognizing the need, the Affordable Care Act (ACA) provided funds, which are now approximately $100 million per year, to the Agency for Healthcare Research and Quality (AHRQ) to disseminate and implement PCOR evidence, in addition to a directive to train researchers. This AHRQ work is in collaboration with the two other components of the ACA PCOR portfolio—the Patient-Centered Outcomes Research Institute's broad mandate to aid patients in health-related decision making by advancing the quality and relevance of evidence, and the provision for the Secretary of Health and Human Services to develop data infrastructure for conducting PCOR. Although the ACA funding is new, AHRQ builds on years of experience in both generating new knowledge and facilitating research finding uptake, which fits within a framework of three factors: content of evidence, communication of the findings, and context for evidence and practice improvement. Improving the context for evidence and practice improvement by enhancing the receptivity of payers and providers to evidence is a focus for AHRQ. This article highlights the work that AHRQ has done, is doing, and will do in the future to improve the uptake of PCOR findings.

Content of Evidence

For many years, AHRQ has been a leading funder of studies that have closed many gaps in medical knowledge. AHRQ-funded research has shed light on topics ranging from the treatment of non–small cell lung cancer [4] to the safety of attention deficit/

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1098-3015$36.00 – see front matter Copyright © 2015, International Society for Pharmacoeconomics and Outcomes Research (ISPOR). Published by Elsevier Inc.

http://dx.doi.org/10.1016/j.jval.2015.01.010

hyperactivity disorder drugs [5,6] to the optimal duration of antiplatelet therapy after percutaneous coronary intervention [7]. AHRQ recognizes that the baton of PCOR evidence generation is now passed to the Patient-Centered Outcomes Research Institute whose mandate is to continue and expand this primary comparative clinical effectiveness research, along with the long-standing and ongoing commitment of the National Institutes of Health to generate clinical evidence. In the PCOR evidence arena, AHRQ now pivots to improving evidence dissemination and implementation.

Communication of Findings

A critical first step in communicating PCOR findings is organizing the vast and sometimes disparate primary research publications into collections of PCOR evidence. Synthesizing a body of work, rather than just presenting individual studies, enhances communication by demonstrating reproducibility and providing insights into how the findings will apply to diverse real-world patients. AHRQ has established a successful record of enhancing the content of medical knowledge by generating authoritative syntheses of research evidence through the Evidence-based Practice Center (EPC) Program [8]. The impact of the EPC Program has ranged, for example, from two evidence reports on diabetes care contributing to the evidence base for nearly 20 guidelines in the National Guideline Clearinghouse, to being a key factor in the Food and Drug Administration ban of ephedra-containing supplements.

The AHRQ-funded John M. Eisenberg Center for Clinical Decisions and Communications Science transforms these comprehensive evidence syntheses into concise, practically applicable summaries tailored for clinicians, patients and caregivers, and policymakers. AHRQ has produced more than 100 of these translational products through its Effective Health Care (EHC) Program, as well as generating free continuing education modules, slide sets for academic instruction, interactive decision aids for patients, and archived Webcasts. More than 5 million EHC Program publications have been distributed, and more than 60,000 health professionals have earned continuing education credit by completing activities based on EHC Program resources. The overall goal of these efforts is to bring both the patient and the physician closer to the evidence by providing succinct, accessible summaries that facilitate informed shared decision making.

Context for Evidence and Practice Improvement

The context for evidence and practice improvement is the environment in which the information will land to affect change. Contextual elements include the beliefs, values, and preferences of patients and physicians, as well as financial incentives and the structure of health care delivery. Context is the most challenging of the three factors to influence and the one in which AHRQ has the fewest direct levers to drive change on its own. Establishing an environment receptive to PCOR is a critical need and one in which AHRQ, expanding on previous work, will focus much of its PCOR implementation efforts in the next several years.

In providing the evidence, AHRQ actively promotes PCOR evidence to health system partners, such as professional societies in their educational and clinical guidelines activities, the Centers for Medicare & Medicaid Services and private payers in their coverage decisions, and health care providers in integrating evidence into the fabric of care delivery. For instance, the EPC Program drives implementation by identifying partners, such as medical professional societies or provider organizations, who use the reports to generate clinical guidelines, establish research agendas, and develop quality measures. One such successful evidence implementation was the series of EPC Program evidence reports and AHRQ studies on the use of atypical antipsychotic medications that contributed through active partnerships to Maryland developing a medication peer-review program and to new National Committee for Quality Assurance Healthcare Effectiveness Data and Information Set performance measures, all focused on promoting and assessing safe and appropriate antipsychotic medication use in children and adolescents. As a second example, the results of an EPC Program report were an important factor in an Office of Personnel Management decision to encourage Federal Employees Health Benefit plans to include Applied Behavioral Analysis as a covered benefit for children with autism. Future EPC Program work will similarly be produced with specific implementation paths.

To enhance the ability of providers to implement findings into practice, AHRQ recently launched two programs. The “Accelerating the Dissemination and Implementation of PCOR Findings into Primary Care Practice” initiative [9], with funding of up to $45 million per year over 3 years, uses PCOR findings to prevent cardiovascular disease in alignment with the Million Hearts campaign through improving the use of aspirin in high-risk individuals, blood pressure and cholesterol control, and smoking cessation. This program also strengthens the underlying decision-making context for small and medium-sized primary care practices by developing the capacity and infrastructure to implement PCOR findings in an ongoing basis. A second initiative, “Comparative Health System Performance in Accelerating PCOR Dissemination” [10], provides up to $10.5 million per year for 5 years creating Centers of Excellence to understand the role of health systems and their characteristics in the uptake of PCOR findings and the quality and cost of care. In today’s complex and quickly changing health care delivery environment, this program aims to provide researchers, payers, system leaders, and others the evidence they need to improve systems’ uptake of PCOR findings.

The Path Forward

Both the medical community and AHRQ have for years recognized the need to bring research evidence into practice. PCOR implementation requires a multifaceted approach addressing the content of evidence, the communication approach, and the context in which that evidence will be received. AHRQ will continually assess needs and develop new initiatives to ensure that PCOR translates into improved patient-centered health outcomes.

Acknowledgments

Drs. Borden and Chiang worked at the Agency for Healthcare Research and Quality (AHRQ) while writing this perspective article. Dr. Kronick is currently the Director of AHRQ.

Source of financial support: Funding was provided by the Agency for Healthcare Research and Quality.

REFERENCES

[1] Hersh AL, Stefanick ML, Stafford RS. National use of postmenopausal hormone therapy: annual trends and response to recent evidence. JAMA 2004;291:47–53.
[2] Lee TH. Eulogy for a quality measure. N Engl J Med 2007;357:1175–7.
[3] Schneider EC, Timbie JW, Fox DS, et al. Dissemination and Adoption of Comparative Effectiveness Research Findings When Findings Challenge Current Practices. Santa Monica, CA: RAND Corporation, 2011.

[4] Zhu J, Sharma DB, Gray SW, et al. Carboplatin and paclitaxel with vs without bevacizumab in older patients with advanced non–small cell lung cancer. JAMA 2012;307:1593–601.
[5] Cooper WO, Habel LA, Sox CM, et al. ADHD drugs and serious cardiovascular events in children and young adults. N Engl J Med 2011;365:1896–904.
[6] Habel LA, Cooper WO, Sox CM, et al. ADHD medications and risk of serious cardiovascular events in young and middle-aged adults. JAMA 2011;306:2673–83.
[7] Eisenstein EL, Anstrom KJ, Kong DF, et al. Clopidogrel use and long-term clinical outcomes after drug-eluting stent implantation. JAMA 2007;297:159–68.
[8] Agency for Healthcare Research and Quality. Evidence-based Practice Centers (EPC) program overview. Available from: http://www.ahrq.gov/research/findings/evidence-based-reports/overview/index.html. [Accessed January 2, 2015].
[9] Agency for Healthcare Research and Quality. Accelerating the dissemintation and implementation of PCOR findings into primary care practice. Available from: http://grants.nih.gov/grants/guide/rfa-files/RFA-HS-14-008.html. [Accessed October 20, 2014].
[10] Agency for Healthcare Research and Quality. Comparative health system performance in accelerating PCOR dissemination. Available from: http://grants.nih.gov/grants/guide/rfa-files/RFA-HS-14-011.html. [Accessed October 20, 2014].