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The Agency for Healthcare Research and Quality and the Development of a Learning Health Care System

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VIEWPOINT

The Agency for Healthcare Research and Quality and the Development of a Learning Health Care System

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The Agency for Healthcare Research and Quality (AHRQ), of which I was the director from May 2016 until January 2017, has played a leading federal role in promoting evidence-based medicine through its support of health services research, the synthesis of clinical research findings into evidence, and strategies to move evidence into practice. Although evidence-based medicine remains an aspirational goal, studies consistently show gaps between optimal care as determined by research evidence and actual practice.[1] In this Viewpoint, I describe a strategy begun during my time at AHRQ that has the potential to be more effective than prior approaches for moving evidence into practice.

AHRQ has regarded the synthesis of research findings on a topic, with rigorous statistical and other scientific techniques to be the highest form of evidence. Thus, the agency has supported the methods and the actual work of doing this by partnering with evidence-based practice centers located at 13, primarily academic, institutions in the United States and Canada, which published 56 evidence reviews on prevention, treatment, and delivery system topics in 2016.[2]

The predecessor of AHRQ, known as the Agency for Health Care Policy and Research (AHCPR), would take the additional step of translating the findings from evidence reviews into practice guidelines. However in some cases, most notably a guideline related to treatment of back pain, a group of clinicians, who perceived that their clinical decision making and autonomy were being threatened by federal practice guidelines, sought to undermine the agency's role in this work. These clinicians organized a lobbying effort in Congress, which resulted in the renaming of AHCPR as AHRQ, a reduction in the agency's budget, and the elimination of guideline development as a part of the agency's functions.[3]

As an alternative to producing clinical guidelines, AHRQ began working with clinical specialty societies to support the implementation of evidence into practice, a role that specialty societies have embraced. These organizations are invited to nominate topics for AHRQ to conduct an evidence review. Once the reviews are completed, the hope is that the specialty societies will use the findings to issue guidance to clinicians. Although AHRQ is not responsible for the development of the guidelines, it maintains the National Guidelines Clearinghouse.[4]

For many clinicians, specialty societies are trusted and influential sources of information on practice. However, there are limitations in relying on them to broker information between investigators and clinicians. Specialty societies are not in a position to understand the wide range of workflow challenges clinicians face in implementing their guidance. Furthermore, specialty societies also lobby on behalf of the financial interests of their members, which can introduce a conflict for interpreting evidence and issuing practice guidance. The contradictions in guidance among specialty societies may contribute to variation in practice even within the same health care system, and thereby undermine patients' ability to have consistent information with which they can participate in shared decision making.

Given the large gaps in time between the production of new knowledge and its application in practice, the current approach to disseminating evidence to clinicians seems inadequate. Patients can be deprived of information about potentially beneficial treatment approaches, and the lack of a system to counteract differential rates of dissemination among clinicians who care for patients with different social characteristics may contribute to health care disparities.

The rapid consolidation of physicians into health care organizations provides another means for disseminating evidence that could improve the inconsistent results achieved by relying on specialty societies. Motivated in large part by alternative payment models that hold clinicians accountable for cost and quality, these organizations have a need to be consistent in their practices and to develop their capacity to become learning health care systems, which can continually improve care over time.

Learning health care systems adopt evidence on a systematic basis and ensure that it is incorporated into decision making throughout the organization in a consistent way.[5] This can be evidence developed outside or within the organization, such as through the analysis of electronic health data. The goal is not to have all patients with a similar clinical need receive the same treatment, but rather to ensure that patients receive consistent information regardless of their clinician or the specific location of care. Patients require consistent information to engage in shared decision making.

The path to becoming a learning health care system is unchartered territory for most health care organizations. If they are to succeed, they will need help in developing processes for adopting, generating, and applying evidence. Because AHRQ is neither a payer nor a regulator, it is the federal agency best positioned to serve as a facilitator that can help health care organizations to make this transition. AHRQ has relevant experience in establishing the scientific methods health care organizations can use to judge the quality of evidence they generate from their own data or that they wish to adopt from external research. AHRQ has also had success in build-

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ing and disseminating toolkits, which have helped health care organizations to develop their approaches to improving patient safety.

These approaches could also be the basis for a more concentrated and sustained effort to help health care organizations make transformational changes to improve health care quality and value. Working as a facilitator to organizations, AHRQ would not be in the untenable position of directly recommending to clinicians how they should practice. Rather, the agency would be supporting clinical leaders who have responsibility to harmonize different perspectives on the available evidence and to establish an organizational approach to apply it.

In January 2017, AHRQ requested comment on how the agency could support the efforts of health care organization to become learning health care systems.[6] One way is by directing support for health services research training toward individuals who work within health systems and in collaboration with the organization's clinical and informatics leaders.

In addition, AHRQ has begun to focus its research portfolio related to health information technology on supporting the development of data analytic tools that can be used for population health management. This includes tools to help clinical leaders within organizations to understand the relevance of available evidence to their own patient population through feedback on the number of patients with specified conditions as well as the variation in their treatment and outcomes. AHRQ is also supporting efforts to implement clinical decision support tools that can help practitioners to recognize when their patients might benefit from evidence adopted across the organization.

Ultimately, it may prove valuable for AHRQ to support the creation of a network of clinical leaders engaged in the transformation of their health care organizations They could identify evidence gaps ripe for consideration by AHRQ's evidence-based practice centers and discuss ways to be more effective in generating, adopting, and incorporating evidence to improve quality and safety across their health systems. Collaborative problem solving would also provide AHRQ with insights about how to best support organizational transformation.

The path forward for AHRQ, however, is complicated by ongoing discussions about whether it should continue as an independent agency or instead become a part of the National Institutes of Health (NIH). There are potential benefits of using a shared organizational structure to connect the NIH's role in generating research findings with AHRQ's role in formulating evidence and translating it into practice. But there are also potential disadvantages, and these should be carefully considered before decisions are made.[7] If AHRQ were to be absorbed into the NIH, it would still require designated funding appropriate to the size of the task as well as the prominence of being an organizational unit, such as an institute, on par with other prioritized areas of research.

The health care system in the United States is rapidly undergoing changes in how clinicians are paid, organized, and connected through information technology. These changes are providing incentives and opportunities to achieve higher value from our health care investments. This will require substantial investment by health care organizations and long-range planning without a definitive roadmap for how to achieve success. With enhanced resources and visibility, AHRQ is uniquely qualified and positioned to assist in this journey and to provide a public benefit that the marketplace has yet to deliver on its own.

ARTICLE INFORMATION

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