

The Importance of Safety and Quality in Rural America

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Approximately 5 years ago, concerns about patient safety in America were highlighted by the Institute of Medicine's (IOM) report *To Err is Human*.¹ This report demonstrated that between 44,000 and 98,000 people die as a result of medical errors annually. In addition to the human costs, medical errors carry an annual economic cost of \$17 billion to \$29 billion.¹ More recently, a study using the Patient Safety Indicators (PSI) of the Agency for Healthcare Research and Quality (AHRQ) demonstrated that nonmedication-related injuries resulted in more than 32,000 deaths attributable to compromises in patient safety (the PSIs are publicly available at no charge and can be downloaded from AHRQ's Web site at www.qualityindicators.ahrq.gov). Associated with these patient deaths were 2.4 million extra days of hospitalization and \$9.3 billion in excess charges.²

Although patient safety continues to command the attention of consumers, researchers, clinicians, purchasers, the press, and policy makers, the focus has expanded to encompass a broader view of health care quality and a prerequisite systems-based approach to achieving quality of care. This drive to improvement has been fueled by a growing body of evidence indicating that far too often there are serious flaws in the quality of America's health care—flaws that carry significant and problematic repercussions. Compromised quality is frequently characterized by inappropriate overuse and underuse of health services, with the attendant financial and human costs. Until very recently, virtually all of the research conducted on quality and patient safety emerged from studies conducted in urban health care settings, leaving health care stakeholders to wonder what the status of quality might be for the approximately 20% of the population who reside in rural America. This issue of *The Journal of Rural Health*, sponsored by AHRQ, is part of a concerted effort to draw much-needed research attention to the topic of rural health care quality and ultimately to stimulate appropriate redesign in rural health care systems and practices through institutional, academic, and public policy change.

Working in tandem with researchers and health care providers across the country, AHRQ is the lead federal agency charged with measuring and improving health care quality and safety in America. AHRQ and its predecessor agencies have a long-standing commitment to rural health services research that dates to the 1970s. AHRQ research has helped to support the examination of varied aspects of organizing, delivering, and financing care in rural America. Although research has been and remains a core mission of AHRQ, the agency's mission was recently changed to focus on improvement—"to improve the quality, safety, efficiency, and effectiveness of health care for all Americans." Unique to AHRQ, this focus includes both the production and use of evidence-based information to improve patient safety and quality of care. AHRQ's evidence can be used to help clinicians and patients select the best interventions and evaluate quality improvement efforts. With a focus on both clinical and organizational change, AHRQ's role as the "evidence agency" supports widespread implementation of what works and efforts to sustain evidence-based practice.

To "bridge the quality chasm" in America, AHRQ facilitates and conducts user-driven research that meets the needs of the agency's customers, translates research and evidence into practices that can be used to improve health care, and works with users to ensure that research results in measurable improvement. In order for AHRQ to achieve an improvement-oriented mission, partnerships with front-line institutions, such as critical

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access hospitals and rural health clinics, are needed to assess the value to real-life settings of an emerging rural-relevant clinical and organizational evidence base. For example, with a \$50 million investment in health information technology this year, AHRQ is hoping to learn more to support broad-based diffusion and implementation of health information technology. More than half of this \$50 million investment in information technology is targeted at rural hospitals and rural communities. In addition, to meet the technical and information needs of AHRQ's grantees and other health care providers, including rural providers, AHRQ will be sponsoring a new Health Information Technology Resource Center. The resource center is being awarded in September 2004.

Reaching thousands of rural health stakeholders across the nation, AHRQ is particularly pleased to support this special issue of *The Journal of Rural Health* focused on safety and quality in rural America. The articles contained in this issue address a wide range of highly relevant topics, including quality measurement, quality improvement strategies, error reporting systems, and translation of research into practice. Although at times these articles highlight facets of quality and safety unique to rural health care, the similarity in the focus of these issues to the overall health care system, regardless of geography, is most striking. For example, there are some potentially important differences in the applicability of the evidence base to rural health care, such as the volume-outcome relationship for high-risk surgery. In research supported by AHRQ, Birkmeyer recently demonstrated that older patients of high-volume surgeons had lower death rates for some cardiac and cancer surgeries than patients whose surgeons performed these operations less frequently.³ However, an article in this issue by Ward et al suggests that the strategy of evidence-based referral for patients in Iowa would present a significant burden to patients and hospitals, with a less impressive quality impact than anticipated.⁴

Although reporting of safety and quality events is a critical step in quality improvement regardless of geographic location, it is not necessarily sufficient to drive improvement. An article in this issue by Jones et al demonstrates that although an innovative reporting system allowed critical access hospitals to learn more about their medication systems, the limited number and presence of pharmacists in these settings inhibits the potential learning from the system failures demonstrated in the reporting system.⁵ In a related article by Westfall et al, the AHRQ-supported "Applied Strategies for Improving Patient Safety" initiative in primary care practice-based research networks demonstrated that successfully implemented voluntary

reporting by primary care clinicians can produce valuable information on process improvement to help enhance the quality of health care.⁶

Although many issues in patient safety are not uniquely related to geography, there are clearly challenges that highlight the unique circumstances facing rural health care delivery systems and rural providers. In this issue, several articles review safety and quality measures that are particularly relevant to rural hospitals, such as hospital transfers and intensive care unit transfers. In their article, Coburn et al review, among other topics, AHRQ's patient safety indicators as a measure of rural hospital quality.⁷ Earlier this year, the first National Healthcare Quality and National Healthcare Disparities Reports were released by the US Department of Health and Human Services. These new annual reports provide a baseline for the nation as we work to improve the quality of care for all. Although many of the quality measures have broad applicability to rural populations, the reports' ability to offer precise measurement of the quality of care in rural America was significantly hampered by sample size limitations. Many of the articles in this special issue offer important measurement strategies that will help to enhance the measurement precision and ultimately the care provided to rural populations.

The effectiveness of rural hospital care for high-profile, high-technology conditions offers special challenges in rural hospitals. The article by Ellerbeck and colleagues emphasizes the distinctive challenges of providing high-technology, highly specialized care for acute myocardial infarction.⁸ The article stresses the importance of rural hospital protocols and collaboration between urban and rural centers.

The IOM's *Crossing the Quality Chasm* report asserts that "the health care environment should be safe for all patients, in all of its processes, all of the time. This standard of safety implies that organizations should not have different, lower standards of care."⁹ Whether patients receive care in Boston, Massachusetts, or Bucktail, Pennsylvania, when it comes to quality and patient safety, the geographic location of care should not matter. The articles in this special issue of *The Journal of Rural Health* offer important insight into the unique rural opportunities and challenges to providing the highest quality care possible.

As with their urban counterparts, rural health care clinicians and managers need the benefit of health services research focused on a cascade of issues, including the redesign of care processes, use of information technology, care coordination, performance and outcome measurement, and cultural dynamics within rural care settings. Continued efforts in these research areas are likely to expose unique rural-urban differences and to

illuminate common findings that can inform both rural and urban health care delivery. This has the potential for positioning rural health environments as test beds of performance improvement and, in the process, setting new standards of care quality.

In summary, we are hopeful that the rural community will increasingly look toward partnering with AHRQ to build and apply the evidence needed to improve health care in rural America. As we collectively drive improvement in the safety and quality of health care, AHRQ looks forward to expanding its relationship with rural health care organizations and providers.

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