Quality improvement in rural health care

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Introduction

Today nearly 1 in 5 Americans live in a rural community.\textsuperscript{1} Rural health care has unique challenges. To date, rural health care providers have been minimally involved in quality improvement programs.\textsuperscript{2} Rural communities are falling behind in the movement to value-based care due to inequities, limited financial resources, and access to technology. The US spent $4.1 trillion on health care in 2022 or about $12,300 per person, according to Centers for Medicare and Medicaid Services’ (CMS) data.\textsuperscript{3} The patient-to-provider ratio in rural areas is 39.8 compared to 53.3 per 100,000 patients in urban areas. Nearly 20 percent of people are over 65 in rural communities compared to 15 percent in urban areas.\textsuperscript{4} While the Medicare Beneficiary Quality Improvement Program was intended to create value for the collection of quality metrics, the measures relevant to rural areas have been retired.

In 2015 Congress passed the Medicare Access and Children’s Health Insurance Program Reauthorization Act (MACRA). This legislation moved reimbursement from a volume-based payment system to one that rewards value for Medicare and Medicaid patients. CMS implemented a set of core provisions for MACRA as the Quality Payment Program. This initial set of payment reforms put an increased focus on quality and value rather than volume. There was a complex system for measuring, reporting, and scoring the value and quality of care. CMS published the final set of regulations on October 14, 2016, with the first performance year to begin January 1, 2017. The Value-Based Methodology Program was to be “cost neutral” and provided upward or downward incentive payments based on quality of care as compared with cost during the performance period. Many variations of this initial program via CMS, the Center for Medicare and Medicaid Innovation, and other pilot projects continue to be proposed and evaluated to identify a program best suited for large practices and/or hospitals.\textsuperscript{5}

In 2001, the Institute of Medicine (IOM) issued a report titled “Crossing the Quality Chasm: A New Health System for the 21st Century.” It called for fundamental reform for higher standards and identified six improvement areas: safe, effective, patient-centered, timely, efficient, and equitable.\textsuperscript{6} Another report in 2005 by the IOM identified rural challenges in ensuring the availability of high-quality health care services.\textsuperscript{7} Finally, in 2015, a National Quality Forum (NQF) report identified many quality improvement barriers including:\textsuperscript{8}

- Fewer health care providers
- Lack of information technology
- Fewer staff available to meet many different demands
- Limited resources available for quality improvement
- Serving a more vulnerable population

In 2018 the NQF Measures Application Partnership (MAP) Rural Health Workgroup identified additional barriers including lack of experience with performance measurement and reporting. Challenges with claims-based performance measures due to low patient volumes and data limitations pressed time, staff, and financial resources.\textsuperscript{9}

Providers paid on alternate methodologies, such as rural health clinics (RHCs) and federally qualified health centers, are frequently excluded from quality initiatives. These programs require an evaluation of utilization of clinic services and have a performance improvement program in place only. No national
quality reporting to Medicare is required for RHCs. Therefore, rural providers and organizations continue to fall behind in performance initiatives. The NQF MAP recognized the lack of tools for rural providers for treatment of behavioral and mental health, substance use, infectious diseases, widened health inequity, and social determinants of health. These issues directly affect value-based scoring in diabetes, hypertension, kidney health, maternal health, mortality, patient experience, patient safety, and preventative care.

**Analysis of the current rural health care status**

Rural hospitals serve individuals that are older, sicker, and poorer than their urban counterparts. According to the American Hospital Association’s Rural Report 2019, Medicare and Medicaid composed 56 percent of payments to hospitals. In 2020, private/self-pay accounted for 68.4 percent of hospital revenue on average, while Medicare’s percentage of net revenue was 19.8 percent and Medicaid was 13.1 percent according to Definitive Healthcare.

In 2017 Medicare and Medicaid made up 56 percent of rural hospitals’ net revenue, yet hospitals receive payment of only 87 cents for every dollar spent caring for Medicare and Medicaid patients overall. Notably, the Medicare Payment Advisory Commission found in its March 2018 report to Congress that rural hospitals’ (excluding critical access hospitals (CAHs)) Medicare margin was -7.4 percent. Nationally, data from the Chartis Group shows that 39 percent of rural hospitals in the US are operating in the red, and without COVID-19 relief funds that number would be 45 percent.

As of December 2022, over 140 rural hospitals have closed in the US since 2010, and 453 are identified as vulnerable to closure. A 2021 study from the Chartis Group discovered that in rural communities where people of color represented more than 15 percent of the population, those individuals were more vulnerable to poor health outcomes than their urban counterparts. Additionally, more communities of color tend to be in states that have had rural hospital closures, increasing their vulnerability and widening health inequity.

National data from the Chartis Group shows that CAHs have an overall INDEX score of 56 percent, with quality at 63 percent, outcomes at 51 percent, patient satisfaction at 67 percent, cost at 34 percent, inpatient market share at 42 percent, and outpatient market share at 48 percent. The best score possible is 100 percent in each area, and the best score possible for readmit and mortality rates is 0.0 percent. The Chartis Rural Hospital Performance INDEX is the industry standard for assessing and benchmarking rural and CAH performance.

National CAH readmit and mortality rates include:

- 30-day heart failure readmit: 21.8 percent
- 30-day pneumonia readmit: 16.3 percent
- 30-day COPD readmit: 19.4 percent
- 30-day heart failure mortality: 12 percent
- 30-day pneumonia mortality: 15.5 percent
- 30-day COPD mortality: 8.4 percent
- Hospital-wide 30-day remit: 15.5 percent

In the April 27, 2016, Federal Register/Vol. 81, No. 81/IPPS Proposed Rules/page 25174, CMS noted, “We believe that in the near future, collection and reporting of data elements through electronic health records (EHRs) will greatly simplify and streamline reporting for various CMS quality reporting programs, and that hospitals will be able to switch primarily to EHR-based data reporting for many measures that are currently manually chart abstracted and submitted to CMS for the Hospital Inpatient Quality Reporting Program.

CMS released their Framework for Advancing Health Care in Rural, Tribal, and Geographically Isolated
Communities in November 2022. This framework consists of six priorities and “supports efforts to advance health equity, expand access to quality, affordable health coverage, and improve health outcomes” as outlined below.

- Priority 1: Apply a community-informed geographic lens to CMS programs and policies
- Priority 2: Increase collection and use of standardized data to improve health care for rural, tribal, and geographically isolated communities
- Priority 3: Strengthen and support health care professionals in rural, tribal, and geographically isolated communities
- Priority 4: Optimize medical and communication technology for rural, tribal, and geographically isolated communities
- Priority 5: Expand access to comprehensive health care coverage, benefits, and services and supports for individuals in rural, tribal, and geographically isolated communities
- Priority 6: Drive innovation and value-based care in rural, tribal, and geographically isolated communities

Additionally, CMS released a Framework for Health Equity with five priorities as outlined below. Creating equity within rural communities is important, and with the average age increasing in rural communities the framework will help ensure equitable access to care.

- Priority 1: Expand the collection, reporting, and analysis of standardized data
- Priority 2: Assess causes of disparities within CMS programs and address inequities in policies and operations to close gaps
- Priority 3: Build capacity of health care organizations and the workforce to reduce health and health care disparities
- Priority 4: Advance language access, health literacy, and the provision of culturally tailored services
- Priority 5: Increase all forms of accessibility to health care services and coverage

**Policy recommendations**

- Continue partnership with the Federal Office of Rural Health Policy (FORHP) for the purpose of recommending rural-relevant quality measures that focus on the top five chronic diseases, (cancer, stroke, chronic obstructive pulmonary disease, and diabetes) including the NQF metrics to improve rural health.
- Continue partnership with CMS to present policies and regulations affecting rural providers, reconsider current policy, and identify health equity and access issues affecting rural populations that will allow services to be expanded in a variety of situations. Incorporating rural needs into policy development would allow providers to work at the top of their license, with appropriate regulatory reduction to support to providers in multiple diverse locations.
- Ensure that rural health providers receive technical assistance through the state offices of rural health. This recognizes the limitations of small rural practices, as clinicians and rural hospitals are supported with EHRs and experience IT limitations, reporting challenges, health information exchange connections, etc.
- Relax regulations that allow all rural facilities to integrate care while being reimbursed on the cost-based model. This could include reimbursement for social determinants of care and incentives for participation.

**Recommended actions**
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- Create partnerships with FORHP and/or CMS.
- Identify policies and regulations impacting health equity and access issues in rural communities and work to resolve these issues.
- Advocate for alignment of rural-relevant quality measures that focus on the top five chronic diseases, including NQF metrics to improve rural health. Ensure expected results for rural areas take into account small numbers, the true costs of care, and limited availability of providers.
- Work with CMMI to develop a grant program in collaboration with FORHP that allows for all 50 states through their state office of rural health to create a demonstration program using rural-relevant quality measures, enhanced reimbursement, and one-sided risk. These measures should align with NRHA policies on population health and cost savings.
- Ensure that CMS quality initiatives do not overlap for rural and cause duplication of efforts. For example, ensure measures are rural relevant.
- Advocate for CMS interoperability funding to states for analytics programs to allow quality reporting through electronic medical records.
- Advocate for CMS to properly reimburse rural facilities and providers for population health, engage with the expansion of the Quality Improvement Program, and assist with the additional expenses of IT, staff, and EHR due to limited technology and EHR capabilities.
- Advocate for modified reimbursement to better align with current social determinants of health and significant comorbidities due to lack of specialty care/consultation.

Conclusion

Rural communities are falling behind in the movement to value-based care due to inequities, financial resources, and access to technology. Rural hospitals serve individuals who are older, sicker, and poorer than their urban counterparts. In order to advance health equity and ensure access to care in rural communities, a rural lens needs to be applied by CMS. Additionally, rural-relevant measures need to be established and supported through funding, technology, technical assistance, and relaxed regulations.

References

4 Cromartie J. Rural aging occurs in different places for very different reasons. https://www.usda.gov/media/blog/2018/12/20/rural-aging-occurs-different-places-very-different-reasons. Published December 20, 2018.
6 2001, the Institute of Medicine (IOM) issued a report “Crossing the Quality Chasm: A New Health System for the 21st Century
8 2015 National Quality Forum (NQF) Report
9 2018 NQF Measures Application Partnership (MAP)


