

## Health Information Exchange Reduces Quality Reporting Burden in Low-Resource Rural Hospitals

How much time is spent on reporting rather than improving hospitals' quality performance? That is the question that should be on the minds of anyone who is seeking to transform health care. The more push toward value-based care we see, the more we see that analytics are the driving force in health care delivery and payment reform initiatives. At the heart of value-based care is the daily work of clinicians focused on creating positive patient outcomes. And yet, this type of patient-centered care can't happen without the right type of information to ensure that every patient receives exemplary care.

### SAYING "ENOUGH!" TO BURDENSOME QUALITY REPORTING

Launched in 2011, the [Medicare Beneficiary Quality Improvement Project](#) (MBQIP) aims to improve Critical Access Hospitals' (CAH) quality of care. One of the core tenants of the program is reporting and comparing quality to accelerate rural health care improvement.

"I always strongly supported the objectives of MBQIP," said Margaret Brockman, Nebraska Office of Rural Health (ORH) Director, "but I had a difficult time recruiting and keeping hospitals in this voluntary program because of the extensive amount of resources it takes to report the data."

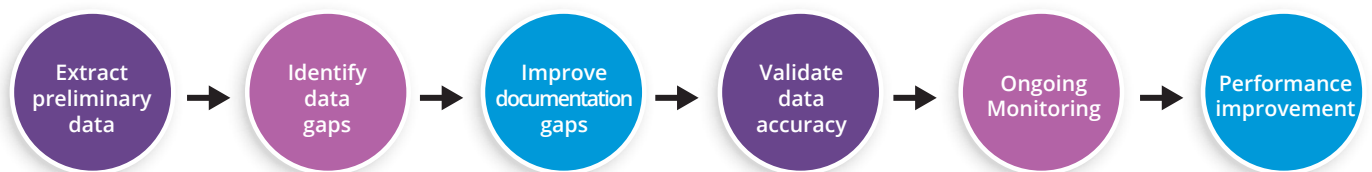
With nearly [40 percent](#) of rural hospitals having negative financial margins, CAHs struggle to maintain operations at status quo. The limited resources fighting against the need for transformative change is daunting. Part of the answer would seem to lie in providing stronger support at a state level through Health Information Exchange (HIE) support. The [Nebraska Health Information Initiative](#) (NEHII) is an innovator in enabling healthier communities through the exchange of health information. With more than 10,000 clinician users; data sharing connections that span across the community from hospitals and clinics to long-term post-acute care; and 100 percent of all medications data in Nebraska, it seemed like a promising solution to support rural health care. Nebraska's ORH, NEHII and their population health analytics vendor [KPI Ninja](#) partnered with [Saunders Medical Center](#) (SMC) to explore the application of HIE analytics to reduce the burden of participating in MBQIP.

The team engaged with the SMC team to discover and document the resources used to identify, aggregate, report and analyze quality results. Diving into workflow, the team learned that the core element of reporting processes were manual chart reviews, despite Electronic Health Record (EHR) system and capabilities. Manual steps included determining what charts qualify under MBQIP by searching for admission location or how the stay was financially coded, searching each chart for data points and sometimes even having to scan the entire chart to locate evidence of exclusion criteria. This is all under the caveat that the quality reporting process couldn't be started until coding and billing processes were completed, creating a process bottleneck.

Many companies today deploy solutions at scale, expecting the same results across different environments. In contrast, the NEHII and KPI team took a profoundly different approach by deep diving into various hospital systems to learn about workflows used through different EHR vendor products and exploring how technology could support the work of reporting and improving quality performance. Understanding current state requires significant fact-finding:

- **Identify** MBQIP measures reported, including specific data points, data sources and how it is captured (discrete/unstructured).
- **Learn** team members, their roles and level of proficiency with reporting tasks.
- **Understand** the pattern of work completed by care team members and the degree of variability within documentation processes (flowsheets, health maintenance, admission forms).
- **Examine** inputs needed, steps performed and timing of resources in the reporting process.

Having a deep knowledge of the current process state, KPI Ninja's technical team went to work with obtaining access to each hospital's VPN server and leveraging their innovative technology in NEHII's platform to reduce the reporting burden. Once the data was flowing and technology manipulation was in place, the pilot sites followed these steps to improve quality performance:



At the time of this publication, SMC was investing a total of 120 hours annually in extracting eight MBQIP measures. This extraction time has been eliminated, demonstrating a 100% extraction automation success. It should be noted that depending on the hospital size, the number of measures reported, and the electronic medical record used, this time and resource burden reduction may easily be doubled or tripled in other hospitals.

*"This partnership [with KPI Ninja] aligns with CMS' initiatives of burden reduction and improved population health outcomes." - Jaime Bland*

"Through the MBQIP project, NEHII and KPI Ninja assisted partner CAHs in achieving meaningful quality and workflow improvements through population health services and technical assistance," said Jaime Bland, Chief Executive Officer at NEHII. "The initiative is aligned with NEHII's commitment to supporting overall burden reduction for regulatory reporting for clinicians and making reporting easier for clinicians across various CMS programs."

Bland added: "Through near real-time dashboards, participating facilities can make data-driven, meaningful change that translates to improved health outcomes. This partnership aligns with CMS' initiatives of burden reduction and improved population health outcomes."

## HIE AS THE CHANGE AGENT

HIEs enable a tighter connection between clinical data and quality reporting when technology capabilities are aligned to value-based programs. This case study provides a sense of just how significantly HIE analytics can decrease the reporting burden as rural systems look to improve the quality and accessibility of affordable health care. Now that NEHII has this capability, the vision of this work is to spread it to all rural hospitals in the region and explore additional, optional measures to enable more comprehensive and impactful improvement efforts.

To ensure HIEs have a strong analytic infrastructure for reducing the reporting burden and performance improvement, we recommend the following actions:

- **Identify** the different quality initiatives your member organizations are participating in.
- **Partner** with a big-data analytic company that has powerful technology capabilities.
- **Carefully** vet the biggest quality pain points, whether under the lens of system burden or community statistics.
- **Provide** solutions that go beyond reducing the burden but also enabling population health.
- **Support** member organizations in thoughtfully implementing the provided solutions.

This case study demonstrates the role of the HIE in supporting population health and value-based care programs. HIEs should identify the various value-based initiatives and strategize how to support this work to ensure consistent, high levels of member organization engagement and continuous quality measure improvement.

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