VCU HEALTH OVERCOMES INTEROPERABILITY CHALLENGES ON WAY TO ECQM SUCCESS

A Case Study in Partnership with the American Hospital Association





ABOUT VCUHS

750+

Beds

700+

Physicians



Richmond, VA



- Five Schools
- One Academic Medical Center
- NCI-designated cancer center
- Full-service children's hospital



- Inpatient Discharges 36,095
- Emergency Department Visits 89,549
- Total Surgeries **22,242**

HIGHLIGHTS

- Jill Bradford Shuemaker, clinical informaticist, and Wendy Sale, eCQM project manager, at Virginia Commonwealth University Health System (VCUHS) were advocates for being on the leading edge of electronic quality measures.
- The challenges with interoperability and immature technology prevented the successful submission of eCQMs.
- To ensure their hospital met the new eCQM requirement in 2016, VCUHS partnered with Medisolv.
- Since acquiring the new technology, VCUHS successfully reported four eCQMs under budget and three months earlier than the deadline. VCUHS plans to double the amount of eCOMs submitted in 2017.

MEET THE TEAM



Jill Bradford Shuemaker, RN, CPHIMS Senior Clinical Informaticist, VCUHS



Wendy Sale eCQM Project Manager, VCUHS



Michele Riviere Senior Clinical Consultant of eMeasures, Medisolv

THE CHALLENGE

Like most providers, the Virginia Commonwealth University Health System (VCUHS) in Richmond, Virginia experienced a lot of pressure and uncertainty in preparing for its first mandatory Electronic Clinical Quality Measure (eCQM) submissions. Unlike most, VCUHS also felt frustration due to two previous unsuccessful attempts at eCQM implementations.

VCUHS was an early adopter of electronic health records and first attempted eCQM implementation in 2012 with help from its quality reporting vendor, using the vendor's reporting software. In that project, the health system and vendor together were unable to extract the data necessary for eCQMs from VCUHS' systems. In an attempt to solve that problem, VCUHS contracted with its EHR provider. While strides were made in data abstraction, this effort was not a full success due to lack of flexibility and data source interoperability. VCUHS met the submission criteria because it could attest that it could run a report. However, the actual data in the report was incomplete and largely inaccurate. VCUHS was not satisfied with the result. Because VCUHS is on a journey to become America's safest and most caring health system, with a strong commitment to quality, its goal was to produce meaningful data that could be used to evaluate and improve the quality of care and services.

"Capturing the required data elements for accurate eCQMs is a very different world from what everyone is used to," says Jill Bradford Shuemaker, a Clinical Informaticist who specializes in quality measures at VCUHS. She notes that providers, solution specialists, and even the regulators that developed the program and make the rules are struggling with the complexities and technical immaturity surrounding eCQM abstraction and submission. "It seemed logical for existing manual reporting vendors and EHR solution providers to come into the space, but it isn't natural for either of them. Many of the first vendors to come into the market are no longer eCQM vendors."

Here is one example of why eCQM quality reporting can be so challenging. VCUHS is an early adopter of electronic health records and implemented with a strategy to gain 100 percent user acceptance. To meet that goal it has made many modifications to its EHR system over the years. VCUHS uses multiple modules of the EHR, and they are not all interoperable. Data nomenclature is not standard or consistent across the different modules and system versions. For example: Instead of creating one field for blood pressure that could be utilized in multiple applications, VCUHS has multiple fields for documenting blood pressure based on clinical needs; therefore instead of being straight forward, extracting blood pressure data to report is complex and challenging.

"Lots of vendors can get to data, but knowing if the data is appropriate for a specific measure is critical," says Wendy

THE CHALLENGE

Sale, VCUHS' eCQM project manager. "You need someone who understands the specifications and complexities of each eCQM, and who understands your organization and its systems. Due to all the complexities, we approach eCQMs as a quality endeavor that relies heavily on collaboration with our information technology (IT) partners; both quality and IT expertise are essential for success."

Although VCUHS was uncertain if it could find a qualified partner to help it with eCQMs, the organization was determined to produce accurate, meaningful, actionable eCQM data. Therefore, it renewed its electronic submission efforts in 2015 by beginning a comprehensive new vendor assessment process. Among many goals of the project, VCUHS desired to submit the required four eCQMs by early December, 2016. The goal was three months before the deadline, which would leave VCUHS time to try again if something went wrong.

"We were much better prepared this time because we learned a lot from our previous projects," says Bradford Shuemaker. "We vetted our potential vendors very thoroughly, which we were able to do because we were educated about our own systems and their limitations, we knew what we wanted in a vendor, and we knew what questions to ask."

VCUHS' Performance Improvement/Quality office and Enterprise Analytics partnered to

define vendor requirements, including:

- Working knowledge of the current eCQM requirements and most recent revisions;
- Experience in the measures VCUHS selected so the vendor could advise on appropriate data and submission formats;
- The expertise and flexibility to extract data from multiple, inconsistent systems without requiring a lot of programming or maintenance support from VCUHS' IT staff.
- A convenient user interface for the eCQM solution;
- Drill down capabilities that facilitated data problem solving and pinpointing improvement opportunities.

"We wanted an organization that was at the forefront of the field. We're ahead of most organizations in eCQM experience, and we wanted to work with someone that was at our level or above," says Sale. "We also have high functional requirements. For example, we wanted to be able to drill down to the code level to see why we didn't meet a quality measure for any individual patient. The vendors we had worked with were not able to do that. We also needed a vendor who could support both Eligible Hospital and Eligible Clinician eCQMs, as we have an integrated EHR and manage quality measure programs centrally."



VCUHS initially identified five ONC-certified vendors for further investigation. After initial review the team narrowed the selection down to three vendors, who each presented demos and were asked to respond to a comprehensive set of questions. That process produced two finalists that underwent more extensive assessment before VCUHS selected Medisolv and its ENCOR quality reporting solution. ENCOR supports all 93 Ambulatory and hospital eCQMs, Inpatient Quality Reporting (IQR) measures, and Meaningful Use and Joint Commission ORYX program requirements.

"Medisolv's expertise was the biggest difference," says Bradford Shuemaker. "Medisolv is very engaged in quality reporting at the national level and is very in touch with providers and regulators regarding what is happening. They are an advocate that is helping shape the regulations."

Despite Medisolv's advantages, the company has one limitation relevant to this project: It can't stop time. When Medisolv was selected, VCUHS had a little more than six months until its initial hospital eCQM submission.

"Everyone here was nervous," says Sale. "We had a backup plan."



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As an established vendor, Medisolv had standard processes and knew what needed to be done, but provided the flexibility needed to meet VCUHS requirements.

"Medisolv didn't try to force-fit their process on us. They co-developed the process with us, even though they already had a methodology and learning tools. Their willingness to be flexible was very valuable to us," says Sale. "We never heard 'You can't do it that way.' With Medisolv, it was more like 'We don't usually do it that way, but here is what is needed to make it work.' To me, that flexibility made a big difference in this project."

"Many hospitals have one contact that coordinates eCQMs, whereas VCUHS had a strong team with very good clinical and technical people," said Medisolv Clinical Consultant Michele Riviere, who worked closely with VCUHS on the project. VCUHS' eCQM team included staff representing senior leadership, enterprise analytics, IT, financial services, lab, quality, pharmacy, abstraction, and clinical roles.

"They are a well-oiled machine," says Riviere. "For eCQM, VCUHS had a steering committee, a data acquisition committee and a clinical committee. Their approach and level of organization were real assets."

Besides being able to work well with VCUHS' team and structure, Medisolv also was able to effectively work with the organization's multiple and disparate records systems. After working with Medisolv to extract EHR data necessary for accurate eCQM results, it was time to focus on improving measure performance. The ENCOR solution provides robust capabilities for Quality staff to monitor and improve measure performance. The ability to drill down to the patient level and review clinical data elements that are used for measure calculations is critical in building confidence in the results.

"It drills right down to the code level when we're doing our validations to show us which criteria were and were not met," says Bradford Shuemaker. "Before, I needed five screens to get all the reference measures, codes and other data I needed."

"The products put everything you need for a group of patients, a measure or a specific patient all at your fingertips," adds Sale. "I don't have to go into the EHR or other systems."

RESULTS & NEXT STEPS

VCUHS submitted its first eCQMs in December, 2016 – three months before the deadline, and less than eight months after selecting Medisolv as its partner.

"Having been through this twice before, when Wendy told me the data we submitted was accurate and the submission was successful, I didn't believe it," says Bradford Shuemaker.

VCUHS credits the functionality of the ENCOR software and assistance from Medisolv's staff in meeting its submission goals on a tight timeline. "The solution is very proactive. Even before measure rate validation, it will show you if you are not picking up a data point that you need for a measure and help you see why you're not getting the data," says Sale. "It gives you

the level of detail you need to solve cases without going to the EHR. That's incredible to me."

Following its initial success, the project team at VCUHS committed to doubling the amount of eCQMs it would submit the following year, to eight. It is also expanding its use of ENCOR, now adding the ENCOR Clinician module to support electronic quality reporting for its Eligible Clinicians to meet QPP/MIPS quality reporting requirements of the MACRA legislation.

"We submitted our first eCQMs accurately, three months early, and under budget," says Sale. "It gives me comfort that as we move forward and the landscape changes, Medisolv will be right there with us."



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