When you work in the burgeoning field of health data analytics, overcoming big challenges is part of the job. Elisa Horbatuk, director of Decision Support Services (DSS) at Stony Brook University Hospital, Stony Brook, NY, says that healthcare organizations face two large challenges in making sense of increasing amounts of incoming health data.

The first is learning to increase efficiencies so consistent resources can be used to manage an expanding scope. “We all are struggling to meet data needs that support quality and safety initiatives, operational needs, and regulatory requirements,” Horbatuk says.

To meet the challenge, her team of 23 analytics and clinical experts collaborate closely with the other hospital departments—including information technology (IT), clinical services, and finance—to better capture data at the point of care. This allows “a greater portion of data collection to be performed via query rather than manual abstraction, but [it] must be balanced with the need to maintain manageable workloads for nursing and medical staffs,” she says.

With tremendous support from IT, the team is working to increase reporting automation.

The other big challenge is meeting increasing requirements on external quality reporting at both the state and federal level. “With the expansion of electronic health records (EHRs), there is greater interest in being able to extract more clinical data in a quick turnaround time,” Horbatuk says, stressing that most quality measure sets require some manual review, regardless of format.

“Centers for Medicare & Medicaid Services and state requirements continue to increase every year, and sometimes there are new chart abstracted measure sets that we have to report, which impacts abstraction. Meanwhile, we have more claims- or outcome-based measures, which require less need for abstraction but greater need for analysis, and payers continuing to ask for more data,” she explains.

“My biggest challenge, however, is managing the sheer volume of information that must be processed every day in the healthcare environment,” Horbatuk says. “Information must be managed efficiently, but it must be of the highest quality in terms of accuracy, completeness, relevance, and ability to be understood.”

**DIVERSE CAREER PATH**

Horbatuk’s big-picture view of her profession stems from her varied career path. After earning a master’s degree in sociology and working in primary-care research, she worked outside of healthcare, conducting market research in the movie industry. There, while parsing and conducting reliability checks on raw data files, she was introduced to data management, quality, and analysis.

She also learned about effective narrative-report writing from one of her colleagues. “It was a fantastic opportunity to learn how to take raw numbers and turn them into something that is meaningful, readable, and actionable,” she says. It proved “a valuable and transferrable skill” when she returned to healthcare as a health analyst at a quality improvement organization and, later, in data management at Stony Brook University Hospital, where she continued to hone her analytic and reporting skills.

“I developed expertise in external quality reporting and in data and information quality before taking on greater supervisory and management responsibilities as DSS director 2 years ago,” she says. “I now lead a department that is data-focused and data-driven.”

Today, Horbatuk continues to broaden her professional skills. She is working on becoming a certified health data analyst and plans to earn her CPHQ in the near future. “Earning a CPHQ would broaden my focus from data to the wider arena of quality improvement, since it demands a broader knowledge base of quality beyond data and information collection and distillation,” she says.

Meanwhile, she plans to stay actively engaged in NAHQ.
where she learns from peers by collaborating on projects such as the health analytics work group. The opportunity to work with others and learn their perceptions of crucial components of health analytics broadens each individual’s concept of the required body of knowledge. Similarly, all of the competencies under development by NAHQ will aggregate diverse perspectives on the key knowledge and skills vital to being successful in healthcare quality improvement.

**STAY MISSION-FOCUSED**

For now, Horbatuk encourages those in health data analytics to stay true to their mission of providing hospital leadership with the information they need to improve quality. Focusing on the details rather than on the big picture of what we do decreases our ability to adapt quickly, she says.

The key is flexibility. “The overall mission for anyone working for any healthcare organization is to improve care and outcomes for patients,” she says. “The mechanisms by which we do that may change, and we cannot become tied to any one procedure or method. Analytic techniques and reporting tools change over time, and abstractors must collaborate to improve data capture in the EHR while still performing manual abstraction. It is our responsibility to provide the clinical services and to provide hospital leadership with the information they need to improve, and we cannot become wedded to any one mechanism for doing so.”

“Earning a CPHQ would broaden my focus from data to the wider arena of quality improvement, since it demands a broader knowledge base of quality beyond data and information collection and distillation.”