By the Numbers Part II: Interpreting Data to Identify Trends and Drive Decision Making

Increasingly under public scrutiny to improve patient care, health care executives may point with pride to a plethora of data being collected by their information technology (IT) systems. But unless those data are supplying leaders and staff with information that matters, their medical informatics may be far afield from helping them make important decisions based on what their stakeholders need. Using data to drive decision making is a worthy goal, but the quality of data is crucial.

"Not everything can or should be measured," says Randy A. Hayes, senior vice president for quality management and health information with Timberline Knolls, Lemont, Illinois. You can rely on too many or too few data. Before designing which data to collect, therefore, a first step is to conceptualize the service system in which you work.

Conceptualizing the Service System

Trending is the examination of data over time to determine whether or not they are meeting a health care system's needs and whether an area or issue is improving. "You need to know the goals of your service system," Hayes says, "and that starts with your organization's vision and mission."

Hayes offers advice from David Gustafson, Ph.D., with the University of Wisconsin's Network for the Improvement of Addiction Treatment. "Trend on the things that keep the CEO awake at night," he says; in other words, those data that are considered critically important. Design improvement projects to use data so that they help providers translate quality improvement goals into enhanced patient care.

This means understanding the multidimensionality of the system with which you are working. A service system is neither linear nor additive, but rather it is dynamic; outcomes can be better understood through the interconnections of individuals, both

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CASE STUDY

Using Evidence-Based Practice and Outcomes Management to Improve Care

Evidence-based practice is an approach to health care delivery in which organizations use practices, processes, and procedures that have been demonstrated through empirical research to have a positive impact on patient care and safety to provide quality care to patients. Coupled with outcomes management—the use of data to determine whether patient care is effective and appropriate—organizations can provide focused and targeted care to patients that achieves positive outcomes and improved quality.

Several years ago, the Astor Home for Children began an effort to increase their use of evidence-based practices and to incorporate concepts from outcomes management into its programs. "The entire field of health care is moving toward providing evidence-based care and using outcomes management, and we are no different," says James McGuirk, Ph.D., executive director and chief executive officer for the Astor Home for Children. "We want to be sure that the care we are providing is the best possible care and can have the most positive impact on our clients."

Using a Multifaceted Approach to Achieve Success

Implementing an evidence-based program is not always easy. "Many times clinicians want to treat clients using the methods with which they are most familiar, not necessarily the ones that data show are most effective," says McGuirk. To incorporate evidence-based practices into the organization, Astor began a multifaceted program that involved shifting the organizational culture.

One component of this program involves using the organization’s professional services committee to research, investigate, recommend, and support the use of evidence-based practice. The committee is comprised of the organization’s clinical leaders and chaired by the medical director. Committee members discuss how the organization can use best practices to improve care and how to incorporate evidence-based practices into the daily operations of the organization. The committee explores information on possible treatments and their effectiveness. The committee also recommends new treatments, sets targets to measure success, and determines any potential staffing issues associated with new treatment options.

Another component of Astor’s program is the organization’s leadership day, during which leaders from across the organization meet two or three times a year to discuss and learn about various topics. Leadership day has proven to be an effective forum to educate leaders about evidence-based practice and outcomes management. "At some of these leadership meetings, we brought in experts in the field. We also had individuals from different Astor service areas share their own success stories about evidence-based care and outcomes management," says McGuirk. "These meetings create an opportunity to share best practices and encourage the use of evidence-based practice and outcomes management."

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Astor also uses town meetings to assess staff feedback and concerns regarding the use and implementation of evidence-based practices. "The medical director and the director of programs improvement, outcomes management, and research go on periodic 'listening tours' to visit different areas of the organization and gather and listen to staff feedback and concerns. They also discuss any obstacles [to] implementing evidence-based practice," says McGuirk. The two directors bring any identified concerns back to the professional services committee to be addressed.

One of the more innovative ways that Astor encourages the use of evidence-based practices is through evidence-based case conferences. Every service area within the Astor system is required to conduct at least one of these case conferences. "They really help get people in the habit of pursuing evidence-based care," says McGuirk. Within these conferences, the service area reviews the case history of a client who is not progressing as he or she should. The information is shared with the director of program improvement, outcomes management, and research, who does a literature review to see what evidence-based practice exists that could potentially help the client. The director develops a presentation for the service area on the available and appropriate evidence based practice, and identifies resources that would be needed for implementation with the client. "One of the first evidence-based case conferences we did was on a 4-year-old client who was in our Head Start program and was also being treated at our mental health clinic. Based on the child's circumstances, the evidence showed that providing parent/child interaction training (PCIT) would benefit the child and family and improve client outcomes. Based on the literature review, we determined that New York University (NYU) was an expert in this training method, and we brought representatives from NYU to Astor to provide training for the clinical staff. The PCIT approach was then implemented with the family. The service saw some true progress with the child as a result of implementing the evidence-based practice, and the PCIT model has become a model of care throughout the organization for particular clients," says McGuirk.

The organization brings in experts and leaders in the field to provide training and also uses a "train the trainer" approach to educate staff across the organization.

Training is also a critical aspect of changing the culture at Astor. "If you expect staff members to use evidence-based practices, then you need to train them in the use of the methods involved," says McGuirk. To do this, the organization brings in experts and leaders in the field to provide training and also uses a "train the trainer" approach to educate staff across the organization. Astor also provides off-site training opportunities to staff.

Using Data to Drive Decisions
A key component to Astor's cultural change is using data to drive decisions. This is accomplished through the organization's outcomes management program, in which it standardizes data measures and analyzes client data to determine if the care provided is appropriate and effective. "By using objective assessment tools, we can make sure the client is receiving the appropriate level of care," says McGuirk. "We also use data to inform our treatment decisions. For example, we use data—in the form of empirically supported clinical assessment tools given upon admission—to help ensure a treatment planning process that is driven by objective data." In addition, Astor has been using the childhood/adolescent needs and strengths survey, developed by John Lyons, Ph.D., to help assess clients on intake and at discharge to evaluate the effectiveness of the services. "In our organization, evidence-based practice and outcomes management have a symbiotic relationship. We use research to inform practice in the form of evidence-based care, but we use data to inform the selection of evidence-based practices."

Achieving Success
As a result of its cultural shift, Astor has tripled the number of specific evidence-based practices in use in the organization. This has resulted in client improvement in most areas of the agency. In addition, parent/caregiver satisfaction survey results suggest a shift from just overall satisfaction with Astor staff to satisfaction with specific aspects of care. "Parents are able to target specific improvements in their children as opposed to just indicating they are satisfied with care," says McGuirk. "For example, before we implemented our evidence-based practice approach, a mother may have indicated that she was satisfied with her son's care, but now she might say something as specific as 'My son is learning to control his temper,' or 'They have taught my son to read and do mathematics.' These specific improvements indicate that our treatment is more focused on the needs of the individual client."

The Astor Home for Children is continuously working on its shift to evidence-based practice and outcomes management. The organization is hoping to further improve its data collection and analysis functions and continue to sustain and support the use of evidence-based practices throughout the organization.