

# Incorporating Quality Assessment and Improvement

## Improving Outcomes, Reducing Costs

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During the past several decades, the American health care system has experienced what some experts have labeled a quality revolution that is similar to changes manufacturing organizations underwent in the 1980s.<sup>1</sup> Many indicators exist of this trend, including a greater prevalence of quality goals in organizational mission statements and strategies, the emergence of quality-based “report cards” on both the health policy and institutional management levels,<sup>2</sup> and even international comparisons of service quality performance at the national health system level.

The goals of this article are to examine the role of service quality assessment in community benefit organizations, to discuss how results of quality assessment efforts can assist an organization’s strategic direction and momentum, and to offer several examples of service quality assessment in a contemporary hospital community benefit program or initiative.



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### CONCEPT OF HEALTH CARE SERVICES QUALITY

According to the highly regarded Institute of Medicine (IOM) report, *Crossing the Quality Chasm*, quality of health care refers to both the degree to which health services for patients and populations increase the likelihood of desirable health outcomes and whether services are consistent with current professional knowledge.<sup>3</sup> This definition suggests quality assessment of the services of community benefit organizations is an important function because its results help us to understand how they directly or indirectly improve health outcomes in a population. They also tell us whether their processes function at an acceptable level, if not at the level of best practices in a specific field, and why the strategy of a hospital’s community benefit program or initiative needs to be closely aligned with that of its parent health care organization/system.

### QUALITY-DRIVEN ORGANIZATIONS

In order to produce higher levels of service quality that will benefit a specific organization and its stakeholders, the general consensus is that most organizations have to undertake a series of actions, including:

- increase focus on understanding (and eventually improving) internal work processes and systems versus simply reacting to problems and blaming individuals.
- develop a more proactive/preventive versus reactive orientation to measuring results and improving processes.
- utilize cross-functional teams with members from varied organizational levels and functions to improve processes rather than simply relying on inspectors to monitor defects.
- based on the old axiom that “you can’t manage what you don’t measure,” use readily available statistical tools and concepts to understand



process variation and root causes.

- focus upon continual improvement versus simply compliance with standards.
- benchmark results against best practices versus minimal standards.

### COMPONENTS OF SERVICE QUALITY

According to Avedis Donabedian<sup>4</sup>, the following three major types of quality measures can be used to assess the quality of a health care organization's services:

1) Structural indicators: are those that pertain to the resources that are available to provide services. This category includes factors such as facilities, staff and relevant technology.

2) Process measures: those that address the extent to which organizational practices are in accord with accepted standards (a key element described above in the IOM definition of service quality).

3) Outcome measures: those that typically address change in a person's health (broadly defined) following an organizational intervention. Outcomes are clearly a very important group because they reflect a bottom-line orientation. However, without sufficient understanding of structural and process quality, it is very difficult to produce better outcomes.

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### VALUE OF QUALITY ASSESSMENT TO COMMUNITY BENEFIT ORGANIZATIONS

Now that we have briefly reviewed basic issues that underlie the concept of service quality and what needs to be assessed, how can increased quality measurement help a hospital's community benefit program or initiative? Three relevant issues exist:

1) Understanding variation of work processes and its root causes is information that is essential to operations improvement that in turn is needed to produce greater efficiency and effectiveness. This is why it is important for any organization to include quality improvement in its strategy.

2) The results of an organization's quality assessment help an organization to document the value-added contributions of a hospital's commu-

nity benefit program to a larger health care organization or system (e.g., changes in population health that are associated with the hospital's community benefit services.)

3) Quality assessment provides results that should help managers of community benefit organizations improve their accountability to key stakeholders and even their future funding prospects. Thus, there are basic questions that invariably confront community benefit organization managers: Who are my customers? What do they expect from our organization? How are we doing? How can we continually improve our operations and results?

### CASE STUDIES OF QUALITY ASSESSMENT IN COMMUNITY BENEFIT ORGANIZATIONS

Now that we have examined the concept of service quality, its measurement and its relevance to the ongoing operations and strategic management of community benefit organizations, two specific case studies are presented below to enhance understanding. Their inclusion in this report is intended to show the types of quality outcomes that can be assessed by community benefit organizations and their relevance to organizational efforts to link their accomplishments to improving the health status of populations.

#### QUALITY ASSESSMENT CASE 1: NOW PROGRAM

The Spectrum Health Nutritional Options for Wellness program in Grand Rapids, Mich., was created as a result of a case manager's experience. She was making home visits for six months to a low-income patient who was suffering from an open wound that would not heal. In conversation, the case manager learned that the patient was not consuming the foods necessary to heal the wound. The case manager identified the appropriate foods for the patient and the wound began to show vast improvement within 17 days.

The wellness program's mission is to fight chronic disease by establishing a collaborative network to increase patient access to nutritional foods, raise patient awareness of community resources, and improve patient health through self-management. The program brings together case workers, nutritionists, food pantry managers, doctors, nurses, police and church groups to help high-risk, low-income patients manage their chronic diseases through better nutrition. These partners have worked together to develop a cadre of resources. A "food prescription" form for specific diseases for each patient was developed, which health care providers can personalize for each patient. The patient can then use the "prescription" to select nutritional food from local food pantries or grocery stores.



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Also, the program has developed disease specific "do" and "don't" lists for food selection and preparation, and are in the process of developing a new cookbook that patients can use to maintain a nutritional meal plan. Pantries will also be able to utilize this cookbook to procure foods to use in cookbook recipes.

Spectrum Health's program targets services for patients with cardiovascular disease, chronic obstructive pulmonary disease, diabetes, open wounds, pancreatitis, renal disease and sickle-cell disease. Kent County, Mich., residents, ages 18 to 65, who receive care through participating community clinics, are eligible for the program.

### RESULTS

From October 2004 through February 2008, more than 444 patients were served. The program has sponsored 16 chronic disease, self-management classes and 94 individuals have participated in eight cooking classes. The results so far have been outstanding, not only for the participants, but also for the community organizations.

Highlights include:

- Client emergency department visits decreased 26.4 percent following program completion.
- Client hospitalization decreased 44 percent after program completion.
- Clients receiving food prescriptions showed improved levels of albumin, glucose, potassium, triglycerides, cholesterol and weight. Diastolic blood pressure, fasting glucose, HDL cholesterol, HbA1c and LDL cholesterol showed significant improvement.
- Four area congregations/pantries are now asking parishioners for healthier food donations.
- The program was a 2007 American Hospital Association NOVA award winner. Collaboration with Michigan State University will allow the school to provide nutrition education to pantry volunteers, clients and community donors.
- One participating pantry has transitioned the entire pantry to service individuals who have specific nutritional needs.

### QUALITY ASSESSMENT CASE 2: SCHOOL HEALTH ADVOCACY

School nurses improve health outcomes in a nurse-managed School Health Advocacy Program in western Michigan. A regional health system and several area schools entered a partnership to fund school nurse and health aide teams. The program contributes to the students and their families while the cost benefits improve school and the health system outcomes.

### METHODS

Both systems recognized the need to improve the health of children. Each system had a different perspective on the impact of this to its particular mission. Therefore, outcome measurement needed to be translated into the language of the two systems. The health system wanted to make sure that children accessed medical services appropriately. The initial assessment revealed students were being seen in the emergency department for issues that could have been prevented or might be better served in a primary care office. Students suffered unnecessary complications and this meant an increase in cost and suffering. The school system recognized that students were missing school and that children had complex medical, mental health and social problems that parents did not know how to effectively deal with.

Meeting basic needs such as administering medications, eliminating lice, providing first aid, or assisting children with asthma or diabetes was overwhelming. Resources were limited and communicating with parents often proved difficult. The model intended to provide services in the most cost-effective manner to produce measurable outcomes that satisfied the school and the health system.

The service delivery system was developed after an assessment revealed needs to the health system and school districts. Combined structural resources from both organizations enabled school nurses to supervise health aides at selected schools. Service delivery processes were designed utilizing the health system's nursing, medical and health care management expertise. Job descriptions and health service protocols, policies, procedures, training and quality assurance measures were established. The hospital and school partnership team developed specific health outcomes for the program.

### RESULTS

This program serves more than 30,000 students in more than 55 schools in six districts in western Michigan. Data from 2006 and 2007 show these results:

- **Immunization rates:** More than 97 percent of students have complete immunizations.
- **Access to health care:** Basic first aid and care is provided by trained staff. Registered nurses are available during school hours for assistance and advice, with 55,402 documented visits. More than 95 percent of problems are resolved by the nurse and health aide. About 1,800 referrals are made to doctors, with 77 percent of patients seen.



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■ **Physical exams:** Performed at schools with parent permission, in collaboration with our local health center. Parents have given more than 4,000 consents for physical exams.

■ **Dental screening and services:** Completed at schools with parent permission in collaboration with local health center. Parents have given about 5,930 consents for dental exams. Preventive dental services and education are provided.

■ **Head lice:** Less than 1 percent of elementary students now have lice.

■ **Access to vision services:** More than 210 students received glasses after referral.

■ **Access to hearing services:** Fifty-four patients were treated for ear problems after referral.

■ **Safe medication administration:** All medications are reviewed by a registered nurse before administration by trained staff. More than 730 students were to get medications.

■ **Medical emergency care:** All schools had a team trained in CPR and first aid. Most schools demonstrated readiness. Roughly 620 staff were certified in CPR and first aid.

■ **Access to medical insurance:** More than 160 families were assisted to access Healthy Kids/MiChild.

■ **Participation in school for students with health conditions:** More than 3,700 children reported chronic health problems, including 49 with diabetes, and 2,227 had care plans to coordinate care.

■ **Recognition, reporting and support for children with suspected abuse or neglect:** Ninety-two referrals were made to children's protective services. Twenty-four percent of these referrals were substantiated.

■ **Health promotion and disease prevention activities:** Nurses coordinated various health promotion activities and events such as walking clubs.

■ **Health education to staff or students:** More than 1,600 health education lessons were given to staff or students.

Forming partnerships with local school systems presents an opportunity for health systems to

achieve favorable health outcomes for students and decrease health care costs for the community.

### **OBSTACLES TO QUALITY MEASUREMENT**

Although quality assessment is clearly important to community benefit organizations, and the above two cases demonstrate that rigorous plans can be developed and implemented by these organizations, obstacles will likely be encountered. In particular:

■ Information systems and databases may be inadequate. On occasion, the necessary data may well be unavailable. Thus, these concerns need to be addressed beforehand, probably at the proposal stage.

■ Staff members may resist quality measurement if they feel threatened by its results. That is why quality improvement must be based upon a mutual understanding of its importance to an organization's survival.

■ There may be a long lag between the time quality is assessed and managerial responses occur. This timeliness issue needs to be anticipated by organizational managers and built into organizational quality measurement efforts.

■ In order to improve operations, staff members need to understand the positive relationship between organizational efficiency and effectiveness. The most important factor to understand is that when processes are improved, process defects decrease and outcomes improve.

■ It is crucial that organizational managers to understand the need for a balanced focus upon both process-level and end-result outcomes. This will ensure that the community benefit organization adequately understands both how it is doing now and how it can improve its outcomes over time.

### **CONCLUSION**

In recent years, an increasingly popular management approach to quality improvement called Six Sigma has become popular in health care systems worldwide.<sup>5</sup> This model may well also be useful to a hospital's community benefit program or initiative because it also is in need of continual process improvement and the approach is simple yet systematic. Space constraints limit detailed discussion of this approach, but it does offer valuable insights into the stages of successful process improvement including: definition of customer expectations and increasing process understanding, measuring and benchmarking current levels of performance, analyzing root causes of variation and opportunities for improvement, introducing changes and building in



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control mechanisms to reinforce the change.

In contemporary health care, quality assessment and improvement are more important than ever because everyone wants more *value* (efficiency and effectiveness) from services.<sup>6</sup> The case studies based on Spectrum Health efforts clearly outline how a hospital's community benefit program or initiative can successfully employ quality assessment concepts and methods to underscore their value and identify opportunities for improvement. ■



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NOTES

1. Donald Berwick, "Continuous Improvement as an Ideal in Health Care," *New England Journal of*

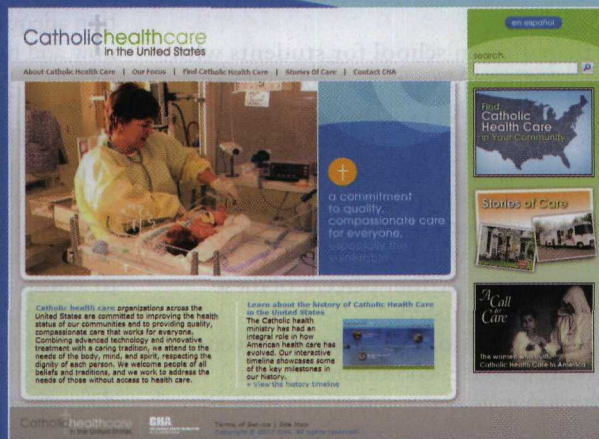
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