

Pursuing Perfection In Healthcare

SIX SIGMA AND
THE CONCEPT OF
DEFECT FREE
SERVICE IS BEING
TESTED.

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Despite the belief that healthcare in the United States is the best in the world, there is growing understanding that healthcare quality in America has serious problems. Studies show major quality deficits for common acute conditions, adverse events from medications in six out of 100 hospital admissions and startling differences in services and outcomes for people of different races.

Compared with other industries, the expectation for healthcare quality is low. In other industries, leading businesses view defect free processes as their central business strategy for increasing market share and profits. They would not tolerate error rates comparable to those currently experienced in healthcare.

No existing healthcare organization has shown it is possible to achieve major quality improvements across its entire delivery system. But there are significant, albeit limited, examples of success in improving quality in some targeted areas.

Demonstration Project

Recognizing the need for compelling models of excellence in healthcare, in early 2001 the Robert Wood Johnson Foundation (RWJF) initiated a \$20.9 million Six Sigma type national demonstration program called “Pursuing Perfection: Raising the Bar for Healthcare Performance.” The intent was to show systemwide efforts are feasible and can set new benchmarks for healthcare quality and safety.

Pursuing Perfection is an experiment—a test of the idea that healthcare organizations can make quality a central business strategy and thereby attain outstanding patient outcomes and financial viability. The program has three components:

1. Major grants and technical assistance for a small group of highly committed healthcare providers to plan and implement programs that pursue perfection as a central business strategy.
2. A large public learning network that helps all program applicants and others who would like to make similar improvements in their organization.
3. A communications campaign targeting providers and opinion leaders about opportunities to improve the quality of healthcare in America.

All three components hinge on healthcare providers taking up the challenge of creating perfect care—developing in their organizations a delivery system with performance and reliability never dreamed of before.

The work in the program thus far has been to find such organizations and start the experiment. Twelve organizations were given seven month plan-

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ning and start-up grants in September 2001, and a subset of these will be awarded implementation grants this month. In addition, two or more international healthcare organizations will join this effort on a self-funded basis.

RWJF has granted funds to the Institute for Healthcare Improvement (IHI) in Boston to administer the program and provide technical assistance. The program is directed by Donald Berwick, M.D., of the IHI and Thomas Nolan of Associates in Process Improvement.

New Strategies

The program seeks to create an entirely new phenomenon—care that strives to:

- Deliver services accurately, correctly and at the right time.
- Avoid services that are not helpful or cost effective.
- Prevent safety hazards and errors.
- Respect each patient's unique needs and preferences.

With no precedent for this type of performance in healthcare, substantial design work has been needed and Pursuing Perfection had help from two major sources. First RWJF appointed a National Advisory Committee (NAC) in early 2001 to advise the foundation and IHI on direction for the program and selection of grantees.

The committee, made up of national experts on quality from within healthcare and other industries, brings both vision and practical experience to the program. When RWJF staff and IHI directors sought leadership for NAC, former Motorola CEO Bob Galvin's expertise and articulate advocacy for Six Sigma perfection made him the right choice as an industry representative. He joined Gail Warden, CEO of Henry Ford Health System, to co-chair NAC.

A second resource for the program was the fortuitous

release of a new Institute of Medicine report, "Crossing the Quality Chasm."¹ This report offers a framework for the transformation of healthcare delivery and methods for addressing deficiencies in the system.

Among the most powerful messages in the report was an inclusive definition of quality, calling for care that is not only effective but also safe, patient centered, efficient, timely and equitable. The report also specified the components needed to create a dramatically improved system of care. These concepts have been integrated into the design of the Pursuing Perfection program.

The program design calls for improvements that change care for all major populations and all major care processes by seeking perfection in first two and then five additional projects. Examples of projects include improving care for people with chronic diseases, such as diabetes or depression, and improving important hospital processes such as medication administration or care for patients with heart attacks.

Knowing successful projects alone would not be sufficient to reach the program's goals, the program design also calls for changes in the key components of the organization's infrastructure: involvement of senior leadership, establishment of quality as a central business strategy and development of information technology, human resources, improvement methods, monitoring and communication to support improvement throughout the organization.

Program Start-Up

In April 2001, 226 hospitals, medical groups and integrated delivery systems applied for grants to complete their plans and initiate efforts to pursue perfection. In the few months since the Pursuing Perfection initiative was announced, members of the U.S. healthcare community have signaled a strong unified desire to raise the bar for healthcare performance. Impressive numbers of providers and healthcare leaders have contacted IHI, seeking to be part of what may be the

largest initiative to achieve excellence in the history of our industry.

The selection process itself raised questions about important details of the design:

- Do we really mean perfection, or is best in healthcare enough?

- Can the program goals be achieved with the current organizational structure, or is new infrastructure needed?
- How can perfection be created in large and complex delivery systems?
- How can it be paid for?
- What is the meaning of patient centered care?

QUALITY AND DIABETES CARE

Using the six dimensions of healthcare quality, the following is an example how an organization can use lay terms to describe patient care goals or promises to patients.

- **Safety:** We will prescribe the ideal medication regimen for your diabetes and all associated conditions.
- **Effectiveness:** We promise to provide the most current, evidence based, customized care you need to accomplish the goals you've established to manage your diabetes and other health issues.
- **Timeliness:** We promise you can get your care when and how you want it without wasting your time.
- **Efficiency:** We will optimize our resources and yours to prevent and treat diabetes and effectively customize and manage your care with the providers and settings (such as health center, home, office or community) that meet your needs.
- **Patient centered:** We promise to keep you at the center of our care and help you live with your diabetes and other health conditions.
- **Equitable:** The measures for all the previous promises will demonstrate similar results for all our patient population.

Other examples are available on the Institute for Healthcare Improvement Web site at www.ihf.org/pursuingperfection.

NAC and IHI wrestled with these questions, drawing on lessons from other industries. Galvin was a staunch advocate for staying the course. He drew on his Six Sigma experience to explain, "We seek defect free care. To be successful, organizations must have a simple and pedantic way to know the rate of defects. This defect rate must be shared within the organization and with others. Only then will healthcare providers be pursuing perfection."

Reviewing proposals gave the NAC even more insight into the capacity of healthcare providers and challenges ahead. Perhaps foremost among the barriers was a project mentality. Hospital and medical groups had a good idea of how to seek defect free care in one condition or process at a time, but the vision and methods for making perfection the goal in the whole organization was not as clear.

Again, NAC advised the Pursuing Perfection project to emphasize that pursuing perfection could not be the work of an office or a few people. It had to be the central organizing business strategy for the enterprise, fully embraced by the chief executive.

The 12 organizations received their planning grants and set off on one of the most ambitious and risky development projects in healthcare. A launch meeting in early September brought the leaders from each of the organizations together to establish a shared vision for the program and find solutions for some of the challenges ahead.

Galvin addressed the group members, providing encouragement and reminding them their work was all-important to their patients. Although achieving perfection in healthcare seemed a daunting task, he applauded their willingness to be pioneers and said such a journey would be fruitful for all of them.

Key Tasks

Planning for a project of this magnitude drew on all the resources IHI could muster. The participating organizations had many tasks before them, but two were crucial—setting aims and building a strategy for changing the organization.

Setting Goals and Promises

One of the first tasks for the organizations participating in Pursuing Perfection has been to set aims that actually raise the bar for healthcare performance.

We know from experience breakthrough goals are achievable in specific areas, such as reducing symptoms for asthma patients or decreasing the number of patients who are harmed by medications.

In Pursuing Perfection, participants seek to exceed these performance levels in two ways: by stretching for perfect care and expanding the definition of quality to include multiple dimensions of care, including safety, effectiveness, efficiency, patient centeredness, timeliness and equity.

The way to make the pursuit of perfection visible is to set goals for defect free care. Project leaders have engaged in the following steps:

1. Establish a definition of perfection using the six dimensions of healthcare quality: safety, effectiveness, timeliness, efficiency, patient centered and equitable.
2. Identify worthy targets for each dimension.
3. Describe the measure that can be used to assess progress.
4. Describe in lay terms what it would mean to achieve these goals (promises for patients).

This last step, making promises to patients about care, is a demonstration of just how different these organizations seek to be. (See “Quality and Diabetes Care” for an example of promises.)

A current listing of the goals and promises for each participant appears on the Pursuing Perfection Web site at www.ihp.org/pursuingperfection.

Making such promises is a significant undertaking for any organization. For most, the concept of reaching defect free care is a huge leap that is difficult to imagine. To help make this leap, Nolan, a statistician, contributed an innovation in goal setting in the concept of half lives of defects, drawn from quality control in other industries.

The use of half lives can be described as follows: Given a process with defects—lost laboratory tests or waiting times, for example—goals are set serially by measuring the time it takes to cut the defect rate in half, and then again in half, and then again in half. While you never reach perfection, you get closer and closer.

Organizations can use this half life approach to plan their pursuit of perfection. They can estimate

what it would take to halve their current rate, and then plan how to do that in four to six months. Using the concept leads them to try to shorten the cycle time for defect reduction—the halving time for defects.

The result is a measure of organizational competence. Shorter halving times indicate quick and effective improvement. Many organizations have used this to help them in their planning.

Reaching All Populations and Care Processes

A second key task is to integrate the knowledge from perfect care in project areas into the infrastructure of the organization. The aim is to assure every employee and every process has Pursuing Perfection as the focus.

Patient centered, system minded, evidence based care should become true north for the entire organization, and the participants’ task is to construct a strategy that transforms operations so they all point true north. For most, this means changing the support systems in the organization: information technology, human resources, leadership and governance, improvement methods and communication. And it means improving relationships with the community and payers (usually insurers and government agencies).

During the planning process, the participants have identified the strategic linkages among their projects and how they will be spread throughout the system. They are building skills in planned care from their first projects (diabetes care, for example) and applying these competencies to enhance care for people with asthma. They are modifying the workforce in the emergency department and then adapting the successful changes to other inpatient units. They are creating hospital information systems that assure coordination of inpatient stays is applicable to coordination of care in the community.

Planning Work Highlights, Strengths and Challenges

During the planning period, the remarkable assets in the Pursuing Perfection program became apparent. Terrific capacity in system design, along with the devotion of senior leaders to the work and engagement of both internal and external stakeholders, has been nothing less than inspiring. Making promises and designing ways to keep them has energized the front line staffs.

Beyond devotion, there is great knowledge of healthcare and improvement. Community providers, developers of information technology and those who fund healthcare have shown tremendous willingness to donate resources and time to help Pursuing Perfection work.

The planning process also has highlighted what will be the most difficult changes to make in our current system. True involvement of patients will require systematic changes in communication, training and evaluation of the healthcare workforce. The need to be transparent, to do their work in the daylight, with both success and failures visible to the staff and to the community, is not only new, but is also threatening to individuals and organizations.

Finding ways to make a quality strategy financially viable has challenged providers for many years, and there are no ready solutions yet. In the Pursuing Perfection program, however, the organizations will be able to work together to come up with viable strate-

gies and leverage their experiences to solve many of them.

As the implementation phase of the program begins, the participants will address the toughest problems head on. Staff may ask again whether best in class is good enough performance. Senior leaders will be very cautious when sharing information on defects with the community. Project teams will be on new ground when inviting patients to assist with service redesign.

But the project teams have a beacon to follow, a signal from other industries conveyed by Bob Galvin and others on NAC that the pursuit of perfection will lead to success for them and the entire healthcare community.

REFERENCE

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1. "Crossing the Quality Chasm," Institute of Medicine, www.iom.edu/iom/iomhome.nsf/Pages/2001+Reports. 