

A winning game plan for QI

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Introduction

Macro management's days in health care are numbered. Medical group administrators can no longer rely on expanding revenues by increasing the client base, adding physicians or tweaking fees. Instead, the major challenge facing health care management today is to do more with less. Given this challenge, we at Palo Alto Medical Foundation (PAMF) began (in late 1991) to think about Continuous Quality Improvement (CQI) as an answer. A non-profit foundation formed as a partnership with an association of 150 physicians, PAMF is located in the California's Bay Area's "Silicon Valley," noted for cutting-edge technologies and business practices. The CQI approach has many advocates in the Bay Area, which is home to several finalists for the Malcolm Baldrige National Quality Award and two recent winners: Solectron (1991) and Granite Rock (1992).

Shortcomings of existing CQI programs

To find out what some of the pitfalls in a CQI effort might be, we talked with colleagues currently involved in QI (QI) programs. Several shortcomings they reported included:

- No game plan: Without a way to integrate the quality process with business goals, the quality effort was scattershot and lacked relevance to the organization as a whole. Employees learned techniques of QI but had no infrastructure allowing them to be put to use.
- Physician involvement: Lack of physician participation meant playing with half a team.
- Train and drain: Employee quality training was wasted when it was not put to immediate and relevant use.
- Lack of accountability: Without clearly assigned responsibilities, QI efforts faltered. The lack of a quality process leader often meant the collapse of the program.
- Quality "show dogs": Isolated improvements looked good but did not significantly affect quality in ways that mattered to the organization. Small successes were common but significant breakthroughs were rare.

Identifying our key processes

After investigating some well-known QI consulting firms, we decided to retain a consultant experienced in process management, a systematic approach to QI developed in industry. This approach assumes that processes, not people, are the problem. Process management is an objective methodology that focuses on the actual work that gets done in an organization, breaking down each process into specific activities that can be analyzed and measured.



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Process management had an impressive track record in manufacturing, but the question here was: would it work for a medical clinic?

Using a proprietary methodology called¹ Customer Process Deployment(TM), our consultant helped us develop an organization-wide plan to improve our clinic's processes. His approach provided us with a game plan rather than a playbook. The "plays" of QI are fairly familiar; Statistical Process Control methods and Pareto diagrams are examples. But winning the quality game requires a game plan that fits the plays into an overall strategy.

Our strategists, meeting weekly for one and a half hours as the executive quality council, were seven senior administrators, all reporting to the CEO, and five executive physicians. Our consultant acted as the coach, providing "hands-on" training in process management techniques.

Our first task was to determine which processes would help achieve the clinic's overall goal of high quality patient care. Since the patient is the ultimate judge of quality, this involved viewing the clinic's processes from a patient's point of view. Putting ourselves in the patient's shoes, we mentally toured our clinic, identifying each

process encountered. When a patient calls to make an appointment, for example, he or she encounters the process "Schedule Patient." Our first two meetings were spent identifying those processes affecting the patient's perception of quality, central to long-term success. These were our *key* processes.

Once we had identified our key processes, we created a flow chart of them and their interrelationships. We also added support processes, those that maintain the processes directly related to patient care. (See Figure 1)

For each box on the chart, a process improvement team, led by one or more owners from the executive quality council, is appointed. The entire organization is represented on the flow chart in terms of its processes, so people can see how they fit in. The chart serves as both an organization-wide plan and a management tool for administering it.

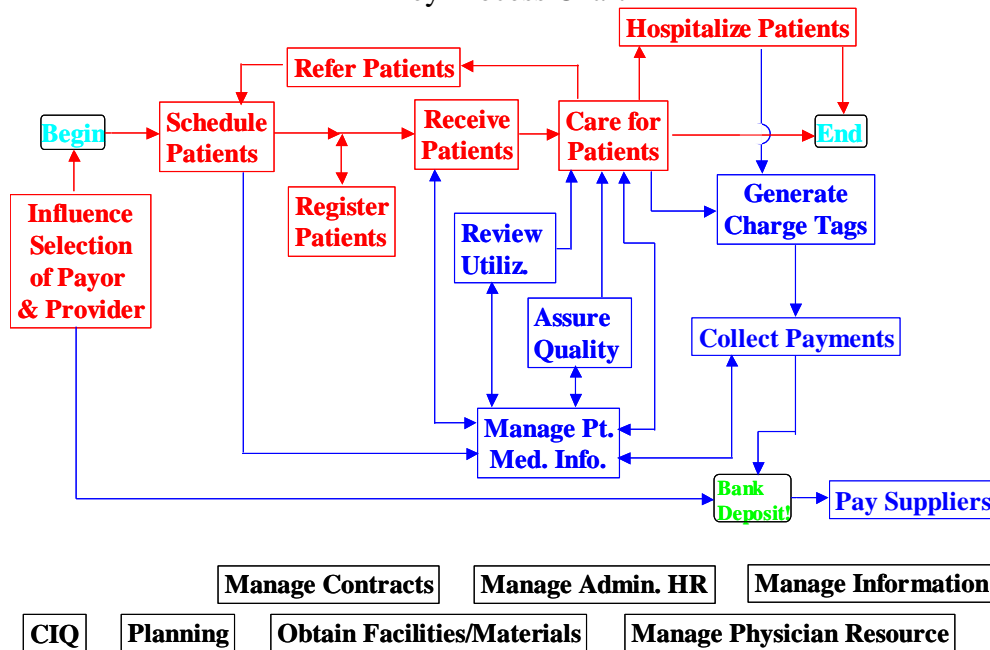
Success depends on understanding the key processes of your organization.

Selecting a process to improve and assigning ownership

We couldn't, of course, improve all of our processes at once; we had to prioritize them. Some of our processes we knew to be working well; others we knew had problems, such as the Scheduling Patient process. We chose this process early on as one to improve, chiefly because it was an "upstream" process. Errors in an "upstream" process become repeated in subsequent processes for a costly cascading effect.

The council considered the Schedule Patients process so important, the PAMF director and its physician executive director agreed to lead its improvement effort as process co-owners. Assigning ownership to a process builds in accountability and ensures the commitment of top management. Other members of the Schedule Patient process improvement team were: the medical director, the clinical area manager, four other physicians, two other administrators, a receptionist and a facilitator.

Figure 1
Key Process Chart



The importance of a facilitator is worth mentioning. The facilitator does not need to come from outside the organization, but he or she should be trained and without a vested interest in the issues under discussion. Our consultant and our director of quality management acted as our first facilitators, and, as we went along, they trained other managers to facilitate improvement teams outside their organizational jurisdiction.

Creating the customer/supplier diagram

The first step in improving any process involves identifying the “customers” of the process and the outputs they require from “suppliers.” After considerable discussion, the Schedule Patients process, customers and their required outputs were identified as shown in Figure 2.

The team spent considerable amounts of time discussing whether or not the physician was a customer of the process, finally

concluding that the physician was a supplier of skills and resources to the process, not a customer. An exception was a physician who referred a patient to another physician. In this instance, the referring physician was deemed a customer.

Next the team identified the measures used by the process’s customers to evaluate quality. Quality measures usually fall into one of two categories: cycle time –the time it takes customers to receive what they requested; and adverse indicators – defects, or the customer’s negative experiences.

The team agreed that the main cycle time measures were:

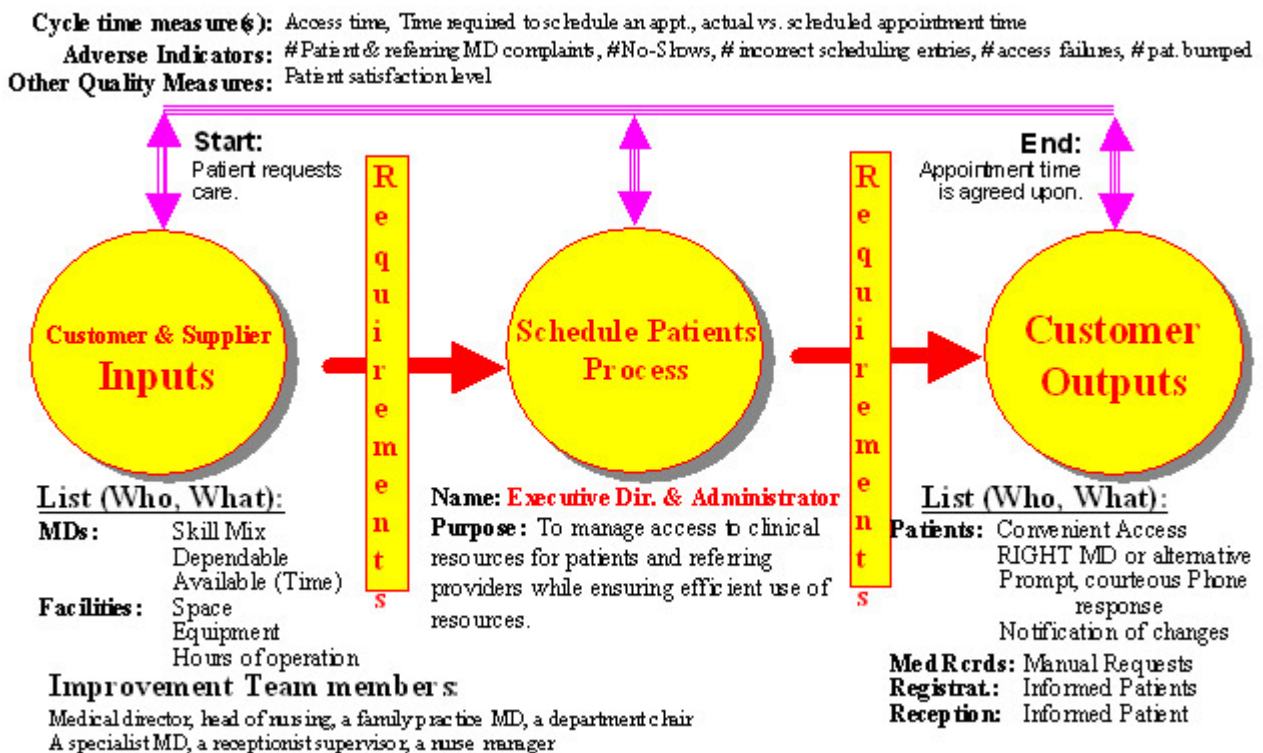
- The amount of time spent making the appointment;
- Access time, the time between the making of the appointment and being seen by the physician; and
- The time between the scheduled appointment hour and when the physician actually sees the patient.

The adverse indicators for the process included:

- The number of failed attempts to make an appointment;
- The number of complaints;
- The number of patient “no-shows”;
- The number of errors in recording patient information; and
- The number of patients double-booked at the last minute because the schedule was full.

Once the quality measures were identified, the team could brainstorm the inputs needed by the schedule patients process. The team agreed that the most important input was dependable physician availability to patients. If a physician was seeing too many patients, cycle times were too long. The medical skill mix available had a similar impact. Other factors were available space, equipment and hours of operation.

Figure 2
Customer-supplier diagram



At this point, the executive quality council and the process improvement team were ready to create a customer/supplier diagram for the schedule patients process. This diagram summarized the customer and supplier inputs, the process outputs and the quality measures used to evaluate the process. (A customer/supplier diagram is developed for each key process, as it becomes a candidate for improvement.)

Developing the customer/supplier diagram had several beneficial results. For one thing, staff changed the way they thought about their jobs. They looked at the process objectively, in terms of its activities, and gained an understanding of how their jobs fit into the clinic's overall operations. They also realized that they were working for the patient, not the physician. By taking the patient's viewpoint, the team focused on the appropriate activities to improve. The diagram also clarified responsibility and accountability for the specific activities of the process and established the parameters for analyzing and collecting data.

Identifying what to improve

To decide what needed improvement, the team created a flow chart of the schedule

patients process, showing the activities and relationships. Looking at the process in this new way revealed dozens of opportunities for improvements. Next the team reviewed the feedback measures, cycle times and defects measures that generated even more ideas for ways to improve. Many involved small changes the team was able to implement right away, such as using an existing "advice nurse" group in the family practice department to speed the response to patients' messages. It was not always necessary for the entire process team to work on an improvement either; individuals or small subteams could be assigned the task. The more significant projects, however, needed to be explored in more detail.

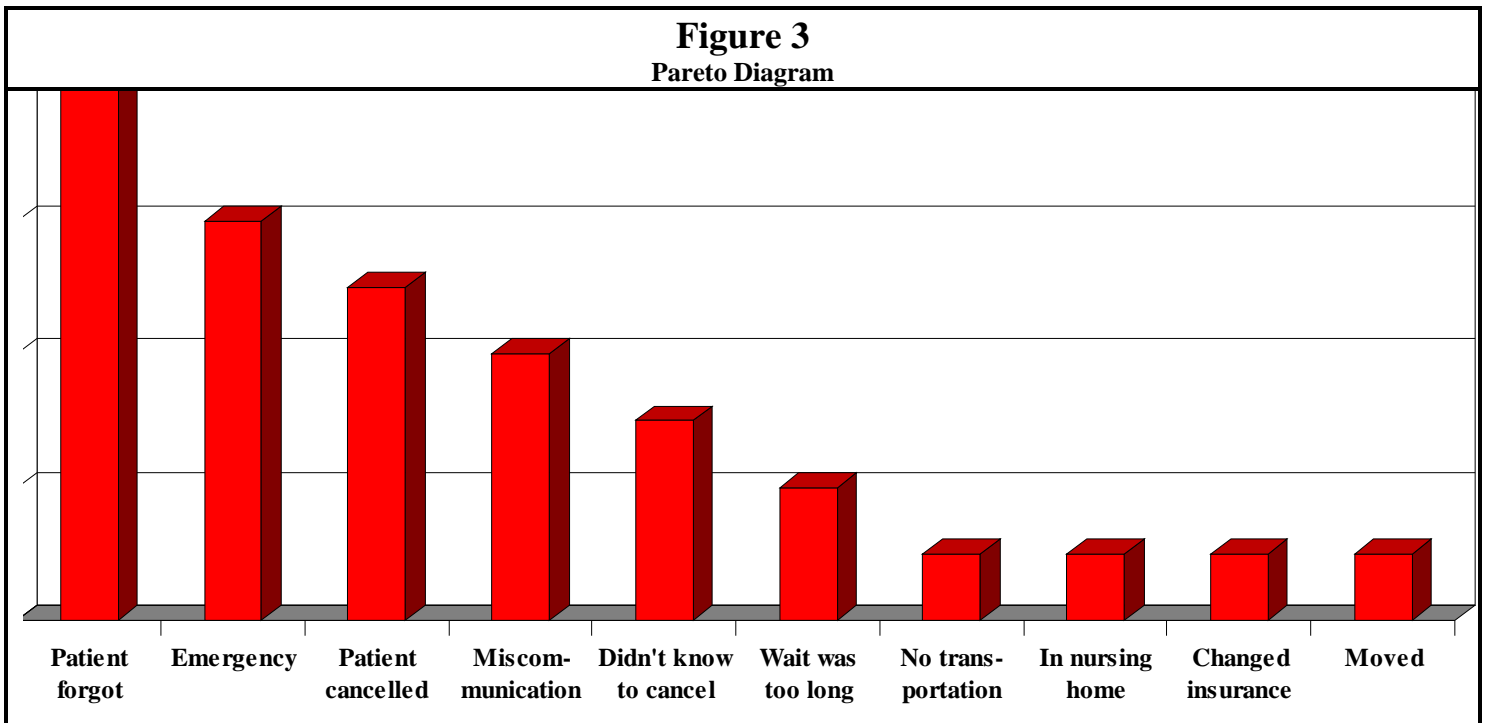
For example, the team determined that patient "no shows" were a significant adverse indicator. The team brainstormed the reasons why a patient might fail to show up for an appointment and charted them on a cause-and-effect diagram. The cause-and-effect diagram then served as a guide in developing a series of open-ended questions for a telephone survey of no-show patients, and the answers to the questions were tallied and graphed on a Pareto diagram.

As Figure 3 shows, the most common reason for no-shows was that the patient forgot about the appointment. To address this problem the team designed three different reminder systems and is currently measuring the results of each to determine which will work best. Other causes will be addressed as the team's work progresses.

Developing a review process

To evaluate improvements and goals, the executive quality council set up a biannual review for each key process. Objective feedback measures include a storyboard display of improvement data (how much cycle times have been reduced, how many complaints have been received, and so on). The quality council also adopted a six-level rating scheme to monitor and evaluate progress. Each rating level has specific requirements that must be met before a process advances to the next highest rating.

Figure 3
Pareto Diagram



In addition to establishing objective measurements of a process's improvement, the review process provides an opportunity to recognize the contributions of team members, boosting morale and team spirit. People feel they have a personal connection to the organization, and that they are helping to make things better. The review process is also a chance to gain executive buy-in for any potentially controversial improvements.

Some Results

In our first year, we chose four processes to improve: schedule patients, register patients, enter charges and manage patient medical information. We began seeing results in only four months. For example, the number of charge sheets turned in by physicians by deadline improved 25 percent for substantial savings. We also reduced claims denials due to registration errors by 50 percent. This gain represented numerous small improvements, but larger gains resulted from single changes, too. This was the case in pediatrics, which had the longest average waiting room time in the clinic – 30 minutes. The team traced the source of the problem to “same-day” appointments, which were being shoehorned into the schedule. Upon analysis, it turned out that the number of “same-day” appointments on any given day was predictable. By allowing a certain number of slots for them, the team reduced the thirty-minute wait to 19 minutes, a 30 percent improvement.

Results like these have an obviously favorable impact on our bottom line, but we feel benefits not so easily expressed in percentages have been equally important. One such benefit is the development of our in-house management resources. The members of the executive quality council have gained new process management skills that they can use in a variety of situations. And gradually, their skills are being shared with other managers, as more and more key processes become part of the CQI program.

Positive employee relations and an emerging culture of cooperation have been two other results. The objective approach to

processes not only minimizes finger pointing, personality conflicts and attitude problems. People from different departments working as a team get to know one another and form relationships, fostering cooperation. Because everyone on the team has an equal voice, everyone is a stakeholder.

Perhaps the most important benefit of all is that we are seeing improved results all the time. The *continuous* in continuous quality improvement is real.

Lessons learned

The Customer Process Deployment method we used for our CQI program avoided the shortcomings reported by our colleagues at the outset. We learned some important lessons. One was that success depends on understanding the key processes of your organization. A good rule of thumb is: don't try to improve anything unless you can identify the process to be improved and the specific measure that will signify improvement. A QI strategy based on key processes is a game plan that encompasses the entire organization and ensures significant and relevant results. It provides a structure enabling the techniques of QI to be used to best advantage.

Linking CQI to the existing management structure also builds in accountability and executive commitment. We learned that the education of top administrative and physician management in quality principles and techniques is essential for their participation and follow-through, two critical factors for long-term success.

Coaching proved a very effective way to educate. People learn best by doing. As more and more process improvement teams form, more and more people gain QI skills. And they learn them “just-in-time” to be put to use, before they are half-forgotten.

Physician involvement is an ongoing challenge for us. Physician attendance at weekly meetings is a significant and essential commitment. Here, the key process flow chart has proved helpful.

When the physicians see how their activities fit into the clinic's game plan, they become more interested in playing. Their attendance is always better when the issue is one in which they are invested. Sometimes we give them a choice, pointing out the importance of their participation in several processes and asking them to choose whichever one appeals to them most.

Conclusion

In developing a game plan based on key processes, we at PAMF developed a management system and culture that allows us to effectively improve quality — on a continuous basis. A new rigor of thinking directs our CQI effort, which features objective feedback measures and success indicators that can be benchmarked throughout the industry.

The Customer Process Deployment method worked for us, and it can work for other medical groups too. We have a tremendous industry opportunity to tease out processes for improvement generic to all clinics — patient registration, scheduling, charts and many others. Improving key processes is the best way we know to winning the quality game, and win the quality game is the best way we know to become a competitive low-cost provider of first-rate health services.

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1. Customer Process Deployment is a trademark of Shaw Resources, Cupertino, CA 95014

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