© Jones and Bartlett Publishers, LLC. NOT FOR SALE OR DISTRIBUTION.

CHAPTER 2

Teams in Healthcare Performance Improvement

Teamwork Is Key for Improving Performance

The healthcare industry has "discovered" the value of teamwork in improving performance in the past few years. Traditionally, the healthcare workplace has been organized hierarchically, with physicians at the apex and other workers supporting the "orders" given by the physician in the interest of the patient. This system seemingly worked well for decades, particularly as the medical knowledge base expanded exponentially, creating increasing specialization and highly esoteric medical practice. Subspecialties have allowed improved scientific understanding of disease entities, but at the same time the relatively arcane knowledge base required in each of the subspecialties has mandated that patient care become an interdisciplinary effort. Although the traditional method of having a single "captain of the ship," usually the physician, once prevailed in delivering care to patients, healthcare processes have become increasingly a matter of teamwork, with multiple staff members accountable for ensuring safe and high-quality care. Thus improvement initiatives must be interdisciplinary if they are to succeed, with each team member participating equally.

Choosing a Project

One of the concepts we discuss in this book is using work systems that involve lean process management and six sigma project measurement systems. Using these approaches entails consideration of several factors in project selection. It is conceivable that a project may make big improvements in quality and productivity that have absolutely no impact on net profit. A lean six sigma project often relies on the theory of constraints articulated by Goldratt[1] in the 1990s to determine which projects to pursue.

Every organization has constraints that usually come in many forms and may actually have a useful purpose. Goldratt proposed using the following rules when a process has a resource constraint:[1]

1. *Identify the system's constraint(s)*. Review the process to determine if any bottlenecks are present. Managers often consider bottlenecks to be a negative

© Jones and Bartlett Publishers, LLC. NOT FOR SALE OR DISTRIBUTION.

factor constraining a process, but a bottleneck may be a competitive advantage for a company. For example, an expensive piece of equipment, such as a positron emission tomograph, may be a bottleneck for a hospital, but the purchase and operational cost of the machine may make it a competitive advantage in a given market. Thus the bottleneck is actually a benefit for the organization, and upstream "push" and downstream "pull" are the areas in which efforts may be concentrated for improving the process.

2. *Decide how to exploit the system's constraint(s)*. Projects should minimize waste related to the constraints. For example, if the constraint is market demand, then the project may involve 100% on-time delivery to optimize customer satisfaction. If the constraint is a machine, as noted in step 1, the focus of the project is usually on reducing setup time, eliminating waste and rework, and optimizing run time.
3. *Subordinate everything else to the decision made in step 2*. Projects that maximize throughput of the constraint provide the greatest payback, and the selected project will eliminate waste from downstream processes and steps (i.e., once the constraint has been used to create something, wasting the output because of a process glitch is highly counterproductive). If downstream processes are already functioning efficiently, then upstream process steps that ensure an adequate supply of resources will be the next target for a project. Slack resources are often the issue for upstream process steps, whereas either slack resources or uniform output flow tends to create problems downstream.
4. *Elevate the system's constraint(s)*. Elevate the constraint means "lift the restriction." Often, the projects completed in steps 2 and 3 eliminate the constraint. If the constraint continues to exist after performing steps 2 and 3, then the next effective approach may try to identify projects that provide additional resources to the constraint, like purchasing additional equipment or hiring additional workers with particular skills.
5. *If, in the previous steps, a constraint has been broken, go back to step 1*. If the constraint has been elevated but process output remains suboptimal, the process may not have been properly characterized, and the next approach is to review and remap the entire process, with the goal of identifying steps that were left out of the initial evaluation. Thus the task of project selection begins again.

Another, more traditional, approach to project selection involves Pareto analysis, known to many as "the 80-20 rule." The basic principle states that 80% of the problems in a process are caused by 20% of the possible sources. Pareto analysis involves identifying all the possible causes of variation or problems in a process, quantifying the number of times each cause occurs, and then graphing the results or placing them in a table sorted by the largest number. A sample Pareto analysis is illustrated in EXAMPLE 2.1.

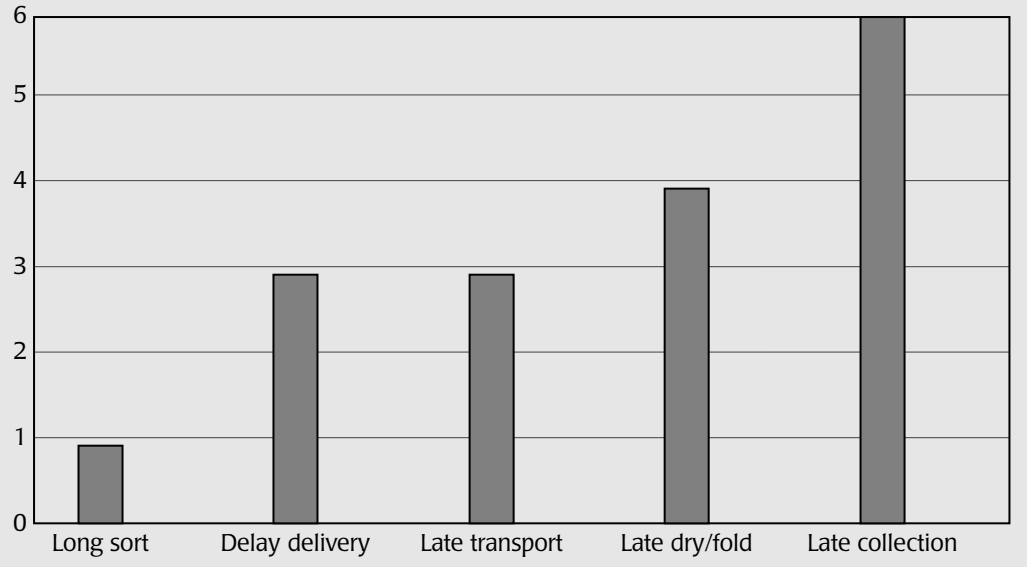
© Jones and Bartlett Publishers, LLC. NOT FOR SALE OR DISTRIBUTION.

Example 2.1 Pareto Analysis

The laundry service at CleanCloth Hospital cycles bed linens once every 6 hours for the medical-surgical unit, using Machine C, which is dedicated to the medical-surgical linens. The linens need to be back on the floor 12 hours after they have been removed, that is, the laundry team must launder the linens within 6 hours so that they are dried, folded, and returned to the floor within 12 hours. The "upstream process" consists of environmental services removing the bed linens, putting them in the proper container, and transporting them in batches to the laundry, where they are sorted to ensure that the linens are matched with Machine C. The "downstream process" entails drying, folding, and delivering the linens to the appropriate closet on the medical-surgical unit. Over the past 6 months the manager of the laundry service noted that approximately 5.2% of the medical-surgical linens are late returning to the unit, which has required using supplemental linens at added cost. The manager studied the process through 300 cycles and collected the number of incidents of errors at each step upstream and downstream from the constraint (Machine C), with the following results.

Cause	Process Position	Frequency of Defects	Percent of Sample
Late collection of bed linens	Upstream	6	2.0%
Late transport to laundry	Upstream	3	1.0%
Sort time prolonged	Upstream	1	0.3%
Drying and folding delayed	Downstream	4	1.3%
Delivery to medical-surgical delayed	Downstream	3	1.0%
Total errors		17	5.6%

The traditional method of displaying these data is a bar chart, as follows:



© Jones and Bartlett Publishers, LLC. NOT FOR SALE OR DISTRIBUTION.

The Pareto analysis in EXAMPLE 2.1 clearly indicates that upstream processes are the most likely culprits for intervention, and both environmental services and laundry will initiate projects to improve that part of the process. As project parameters are being examined, several issues must be considered:

- Importance to the organization's stakeholders
- Impact on a specific performance measure or set of measures
- Regulatory requirements
- Alignment with the strategic plan
- Ability to perform the project in a reasonable time
- Technical feasibility of the project, given existing resources
- Reproducibility in other departments or divisions
- Available financial and material resources
- Human, financial, legal, and organizational risks
- Cultural readiness for dealing with results

Once projects are determined, the next step is to select an optimum team for developing improvement initiatives.

Team Development

Team formation and function tends to follow four specific stages:

1. *Forming:* The first stage of team development during which team members are unsure of the ground rules and expectations for the team. During this stage people tend to be polite and reserved, learning about the other people on the team to determine how everyone fits together. During this stage people tend to discuss issues in more general terms and try to help other team members understand how they expect to fit into the team. At this early juncture, dialogue usually centers around such issues as the goals for the team, what data need to be collected, and who will assume various roles on the team. Team facilitators can expedite this stage by using some of the "team tools" discussed later in this chapter, but one of the most important steps for the forming stage is to establish effective ground rules for team function and member interaction.
2. *Storming:* The next stage in the process typically occurs when people are comfortable enough to begin disagreeing with one another on issues of importance to the team, such as the basic mission of the team or specific operating procedures. Disagreements may be very subtle and simmer below the surface or may become more heated. Either way, this normal phase of team development helps strengthen the team to deal with controversial issues, as well as establish an environment of trust in which everyone on the team feels secure to express opinions. During the storming stage, team members' collaborative styles

© Jones and Bartlett Publishers, LLC. NOT FOR SALE OR DISTRIBUTION.

become apparent, providing the team facilitator with important information about how to manage the group. Additionally, the team usually disagrees over some element of the team's structure or performance, often citing lack of progress as an indication that the team is dysfunctional. However, the critical need for this "shake out" phase becomes apparent as the team settles into the next stage of team evolution. Team leaders should bring disagreements to the surface for resolution, following the important ground rules of dealing with the issues rather than directing attacks at personalities. During the storming stage the team leader needs to continually reemphasize the team's purpose and charter to avoid letting the team wander off course.

3. *Norming:* After teams resolve the issues that surfaced during the storming stage, they enter the norming stage of team development. Team members begin to discuss constructive approaches to completing the group's work, using effective communication methods that were honed during the storming stage. With the emotional energy expenditures of storming behind them, members can focus on the purpose of the team and begin to develop effective processes for solving the problem at hand. At this point the ground rules established during the forming stage are easily applied and accepted by all team members, which accelerates resolution of conflicts that arise. The ideas that were generated in earlier stages are fleshed out, leading to decisions and action plans that help team members feel a sense of growth and accomplishment. Subgroups, based on mutual trust and respect, often predominate to help the team achieve goals faster. Team facilitators usually love this stage of the team's work, because harmony and progress characterize the effort and lead to realization of objectives. However, the team leader must remain engaged to ensure that the group remains on course, receives appropriate feedback on progress, and sticks to the timeline.
4. *Performing:* During this last stage of the team's evolution, the team has gelled into a highly effective, problem-solving unit that can come to consensus over useful solutions and predict problems before they become difficult to resolve. Teams often become proactive and seek other issues to attack, even before managers provide direction. These groups are highly cohesive, and members become loyal to one another, leading to respectful relationships that engender high performance and thrive on productive dissension. Team leaders become almost superfluous at this stage, because the group is capable of self-regulation; however, the leader frequently provides a focus for team bonding that creates the environment for high performance.

Although these stages are typical of team evolution, every team does not develop as neatly and sequentially as these four stages may suggest. Teams can progress from one stage to another relatively easily, or they may get stuck in one of the stages. If the team gets mired in the storming stage, for example, then it may end up disbanding because of lack of progress. Sometimes teams might actually regress to a prior stage,

© Jones and Bartlett Publishers, LLC. NOT FOR SALE OR DISTRIBUTION.

such as when an effective team leader is reassigned or a new member with a dominating personality joins the team. In those cases the team may need to retrace many of the steps that it completed successfully to reestablish team cohesiveness.

Application of the Team Approach

Teams are useful in a variety of circumstances, but not universally. The situations in which teams may be effective include the following:

- When a shared goal requires interdependencies or a project has complexities that require multiple skills and perspectives
- When the project crosses multiple processes or departments and coordinated effort is required to ensure success
- When project success depends on buy-in from multiple people
- When adequate time is available to allow a team to succeed
- When the issue or project is too complicated to be resolved in just a few meetings

On the other hand, some issues may not respond well to a team approach. These situations involve the following:

- Work that requires independent effort (e.g., writing a report) or involves only one person or department with no interdependencies with others (e.g., collecting data from a single source)
- Work that is more efficiently and effectively done by one individual
- Work that requires very specific expertise possessed by one person
- Projects that must be completed in a very short time
- Lack of willingness by managers to abrogate responsibility for a project to team members
- Lack of willingness of team members to assume accountability for the team's efforts

Organizational leaders must determine the suitability of a team approach, but it is important to remember that in some instances a team approach may be needed, even though one individual may want to solve a problem independently. In those situations, upper management intervention may be needed to ensure that a team functions properly.

In EXAMPLE 2.2A, which is not uncommon in healthcare organizations, the physician wishes to take charge of the renovation project and develop a plan that addresses the needs of the surgeons who operate at the facility. Dr. Davis is a highly respected surgeon, although more than a little overbearing and accustomed to issuing orders that are followed precisely in clinical situations. However, Terry knows that the

© Jones and Bartlett Publishers, LLC. NOT FOR SALE OR DISTRIBUTION.

project will require diverse viewpoints to succeed, with issues regarding supplies, regulations, bacteriological containment, finance, and many other items. Thus a team approach is the best method of ensuring that the renovation program will succeed, and EXAMPLE 2.2B reviews some approaches that might be helpful in this situation.

Steps in Creating Teams

A team charter serves as a roadmap for the team. The charter includes a statement of the mission of the team, objectives or statement of work, background of the project, authority or boundary conditions (scope, constraints, resources, and schedule), membership, requirements or specifications, and responsibilities for interactions with other

Example 2.2A The Issue

Dr. Davis is a widely respected surgeon at St. Change-Is-Now Hospital. His management style, which he learned in medical school and honed in his residency, is very directive, and the nursing staff knows that resistance is futile. Terry Thompson, the administrator at St. Change-Is-Now, has determined with his staff that the operating suites will require major overhaul in the next 3 years, and he now must determine what changes need to be made and develop a capital expenditure scenario to ensure that the program is affordable. Dr. Davis heard through the grapevine that the operating suites were about to be renovated, and he approached Terry to direct the planning and implementation of the program. He is confident that his extensive knowledge of the needs of surgeons will allow him to come up with an effective program for this project. How should Terry proceed?

Example 2.2B The Solution

Terry has a number of options, but, importantly, Dr. Davis needs to be involved in the project. Some approaches that Terry might take are as follow:

- Meet with Dr. Davis and explain the need for multiple viewpoints on the project, laying out the team design with a rationale for each team member (e.g., as in a team charter).
- Invite Dr. Davis to participate in the planning process, perhaps as a co-chair of the team or as the chair of a clinical subgroup that examines issues from a surgeon's standpoint.
- Keep Dr. Davis informed at each step of the process (e.g., through an "executive leadership team") so that any issues he might have may be either incorporated into the project or at least anticipated before a final report.

It should be self-evident that not taking a team approach in this situation could be very detrimental, but excluding Dr. Davis because he is not accustomed to being involved in teams would be equally damaging to the project. Additionally, exclusion of the other surgeons on staff would create major difficulties in gaining concurrence with the recommendations of the planning team.

© Jones and Bartlett Publishers, LLC. NOT FOR SALE OR DISTRIBUTION.

groups and leaders. The charter should be specific enough to get the team started in the right direction but not so limiting as to presage the outcome of the team's work. Teams will establish more specific goals and plan once they comprehend the scope of their work, and the original charter is sometimes revised to better reflect the actual work of the group. Confusion, conflicts, or disagreements about the charter must be resolved before the onset of team activity because it will serve as the primary guide to focus the group and as a contract between the team and its sponsor.

Creation of a charter is usually a joint effort of the team leader and sponsor, and the document should consist of the following sections:

- **Section 1—Purpose:** The purpose introduces the charter and generally reviews how the team will use the document.
- **Section 2—Background:** The background describes the issues to be addressed, the evolution of a particular problem that is the subject of the team's work, and a summary of the products or services within the team's purview.
  - **2.1—Program, project, or service description:** This section is a brief functional description of any required equipment or services that will be the subject of the project and how the product or service relates to the organization's strategic plan.
  - **2.2—Organizational interfaces:** These interfaces describe where the team fits within the organization and with which other teams, groups, or outside organizations the team will interact during the project.
  - **2.3—Users/customers:** The users and customers of the team's products, services, or output from the project are described here. Users are often other staff members and customers are usually external, but some companies consider all their staff members to be customers of one another.
  - **2.4—Special or unique circumstances:** Any special or unique circumstances applicable to the team are mentioned (e.g., specific skills or urgency of the task), with a description of how these characteristics impact the team.
- **Section 3—Team mission and goals:** The mission statement establishes the team's purpose and direction. A well-written mission affirms the team's link to the organization's mission statement, vision, and values. Based on the mission statement, the team will identify approximately three to seven high-level goals that have a time horizon set by the project sponsor. If the team is formed to manage a process over time, the goals may be related to business processes and have a short-term time frame of 6 to 12 months and a longer term time frame of 3 to 5 years. However, if the team is constituted to perform a project, the sponsor usually sets the duration of the assignment.

  From these goals, the team will develop short- and long-term objectives to measure progress toward fulfilling its goals. Team objectives must be written so that they are measurable. In-process team metrics that measure progress to goals

© Jones and Bartlett Publishers, LLC. NOT FOR SALE OR DISTRIBUTION.

Example 2.3 Team Mission Statement

The hospital's change team for improving the operating suites has formed a team that includes a mix of staff members with expertise in finance, construction, clinical issues, and support services. Terry Thompson and the Director of OR Services created the following mission statement for the group's work:

Mission: To create a plan for updating and modernizing the operating room suites that optimizes efficiency, reduces costs, and maximizes patient safety.

Goals: To ensure the highest quality pre-, intra-, and postoperative care at the lowest capital and operational costs.

through achievement of milestones and interim levels of improvement will be linked directly back to the team's objectives, as will longer term outcome measures (see EXAMPLE 2.3).

- **Section 4—Team composition:** A list is compiled of all cross-functional team members, including customers and suppliers, required for the team to achieve its mission. The listing should be specific with names or positions, contact information, and organizational unit represented. All high-performing teams develop a process for periodically reviewing and amending the list of team decision makers over the team's life cycle, and these changes must be reflected in updates to the team's charter. Sometimes there are so many potential team members that the size of the group may make it unworkable. In these situations the group may be subdivided into smaller units (e.g., core, extended, and support/advisory team members).
  - **4.1—Core team members:** Frequently, core team members are process owners and are required for conducting team business on a continuous basis, as well as being critical for team decision making. Core team members are listed by name, organization or unit, primary areas of responsibility, and contact information (phone number and e-mail).
  - **4.2—Extended team members:** These team members are involved in team activities on a part-time basis or specialize in particular phases of the project life cycle. Extended team members are free to participate in any team-based activities or decisions where they have expertise or their functional unit has an interest, including team decision making, particularly in their area of expertise or interest.
  - **4.3—Support/advisory team members:** Advisory team members provide support or specific expertise to other team members, much like consultants, but generally do not participate in team decisions. Typical advisory team members include customers, suppliers, consultants, and partners.

© Jones and Bartlett Publishers, LLC. NOT FOR SALE OR DISTRIBUTION.

- **Section 5—Team membership roles:** Roles and responsibilities of both the organizations supporting the team and of each core and extended team member provide important information about the team's functions. If the team has chosen a different team membership division than "core, extended, and support/advisory," it will identify and explain how the team members are organized and which members are allowed to vote on recommendations and decisions. Definition of roles and responsibilities for both organizations and individual team members enables the team to identify required functional areas for team participation, to match these functions with specific team members, and to point out any gaps between in needed skills that may require adjusting membership. Each team member's supervisor must grant the member time and authority to represent the business unit on the team and vote on issues of importance.
- **Section 6—Team empowerment boundaries:** The team and sponsor will often work together to identify the specific empowerment needed by the team to achieve its goals, based on its mission, objectives, and the level of team member skills and capabilities. Empowerment allows the team to appropriately apply its expertise to the issues identified in the charter and devote team members' energies to resolving the issue, rather than struggling to find resources. With this level of empowerment comes an associated level of team accountability for the use of the resources to achieve the goals outlined in the charter. Empowerment boundaries provide a clear agreement between the team and the sponsor and remainder of the organization on those areas in which the team can exercise its discretion. Because the resources needed by a team must be justified, the team must assess its capabilities to ensure the sponsor that resources will be managed effectively. As the team performs its work effectively, the empowerment statement may be revised to allow greater flexibility and wider boundaries. EXAMPLE 2.4 shows an empowerment statement.

Example 2.4 Empowerment Statement

Terry understood that the team may need to access resources to create an effective renovation plan, and so he worked with the team leader to craft the following:

- **Renovation Program Empowerment:** Except as noted below, the OR Renovation Team is empowered to develop, approve, and update, as necessary, all operating room renovation plans and documentation including but not limited to:
  - Program planning documentation and architectural plans
  - System, equipment, and software specifications
  - Floor plan and supporting systems management requirements and plans
  - Acquisition management documentation
  - Contract deliverables for equipment and supplies
- **Limit:** The OR Renovation Team may not execute contracts without approval by the CEO or the Chairman of the Board of Trustees, nor may the Team create financial obligations for the corporation in excess of $1,000 (one thousand dollars).

© Jones and Bartlett Publishers, LLC. NOT FOR SALE OR DISTRIBUTION.

- **Section 7—Team operations:** This section permits the team to describe the processes it plans to use in its operations and to identify required relationships with other teams, groups, or organizations crucial to its mission. The ability of a team to function properly may require new relationships and processes, and high-performing teams should address the following aspects of team operation:
  - **7.1—Closer proximity of team members**: To make team operations more effective, members may need to be located more closely together to enhance communications and interactions. As we discuss lean process management later in the book, the wisdom of "team pods" to facilitate effective team functions will become evident.
  - **7.2—Team shared accountability:** The accountability of team members should be explicit, with information about the percentage of time that team members will be expected to spend on team matters and the priority given team activity relative to the team members' usual duties.
  - **7.3—Decision-making processes:** The methods by which the team makes decisions will be important, particularly when the team consists of members from several departments at different levels on the organizational chart. Effective team operations generally require consensus decision making for all matters in which team stakeholders have interests, but at times other approaches, such as empowering an individual team member to decide and act, may be more appropriate. Those specific situations should be outlined in this section. Many times, teams may use flowcharts or other types of illustrations to describe these processes.
  - **7.4—Conflict resolution rules:** Internal conflicts are inevitable, and the team charter should have established rules for conflict resolution and an appeal process if the conflict deteriorates beyond the team's ability to resolve the issue. The inability to resolve conflicts may cause a team to lose focus and even disintegrate, and so this section is of particular importance.
  - **7.5—Problem-solving approaches:** Because most teams are devoted to resolving issues related to a new or existing process, the general approach to problem solving may be identified in the charter. For example, the team may be charged with using lean process management techniques or six sigma limits for resolving identified problems. To an extent, the problem-solving approaches may influence team composition, and so this section has implications beyond just providing the basis for improvement.
  - **7.6—Process improvement procedures:** High-performing teams understand that their own processes require continuous scrutiny for improvement, and so they constantly improve through monitoring, implementing, and tracking team processes. Opportunities for improvement should undergo the same analysis and implementation efforts as those for processes in the remainder of the organization.

© Jones and Bartlett Publishers, LLC. NOT FOR SALE OR DISTRIBUTION.

- **7.7—Changes in team membership:** Any team may need revision over time, as skill needs change, members leave the organization or are promoted to other positions, or to introduce new ideas into the mix. Procedures for identifying and then implementing changes in team membership should be codified at the beginning of the team's life so that these transitions are as smooth as possible.
- **7.8—Leadership changes:** As team projects progress through various cycles, team leadership may need to be changed to better reflect the team's goals and objectives at each stage. Some teams may identify a succession plan to deal with changes expected as the team evolves, identifying criteria for change to new team leadership prospectively. Some criteria that may be used include the following:
  - Leadership qualifications
  - The point in the team life cycle
  - Situations or issues encountered by the team
  - Team maturity and operational dynamics
- **7.9—Relationships with other teams:** Most teams must interact with other groups or teams in the organization or with partners and suppliers, and any specific relationships should be delineated. However, this section should also include proposed relationships as the team matures, so that these interactions can be developed without delay. For each organization identified, methods should be outlined to ensure the proper interface, interaction, and integration of activities.
- **7.10—Other relationships:** Any other relationships, such as with user or customer organizations, suppliers, or other groups that the team needs to interact with to effectively carry out its mission, goals, and objectives, should be acknowledged, with methods described for how the team will ensure the proper interface, interaction, and integration of activities.

- **Section 8—Team performance assessment:** To identify opportunities for improvement that must be recognized to ensure high performance, teams must have methods of assessing performance. Metrics should include "in-process" measures that determine the efficiency of team processes and "outcome" measures that determine the effectiveness of the team's operational processes. The team and sponsor should work together to define key areas of performance that need to be measured and assessed to continuously improve. Often, these measures are labeled "Candidates for Internal Team Metrics" in the charter and address both how the team functions and how well it progresses toward meeting the team goals and objectives stated in Section 3. The candidates for the metrics list should be comprehensive and include measures that the team is already using or that might be required because of internal or external regulations. These metrics are usually confidential for the team's use only, but in some cases the measures might be used by senior managers to determine team progress.

© Jones and Bartlett Publishers, LLC. NOT FOR SALE OR DISTRIBUTION.

- **Section 9—Team support requirements:** Many teams require outside assistance to succeed (e.g., consultants for specific tasks that are not available within the organization), and this section is used to document these needs. In addition to delineating these requirements, any shortfalls identified here should include proposed solutions (e.g., the name of a consultant or outside vendor, facility, educational program, or other resource needed to supply specific services). The team sponsor should be prepared to deal with any deficiency to ensure success of the project.
- **Section 10—Appendices:** Often used to amplify specific sections, appendices may be useful to delineate complex areas of the team's work that might not be immediately germane for all stakeholders who review the charter. For example, intricate data collection or analysis details may not be of interest to managers but may be of utmost importance in describing the team's work, and the appendices can serve as the location in the charter to provide these details. Additionally, many charters use appendices to outline any content that is likely to change on a recurring basis to prevent numerous revisions to the body of the charter. Additionally, the budget for the project is often placed in one of the appendices, and the detailed project timeline can be detailed in another of these attachments.

As part of the finalized charter, the team usually prepares an executive summary that allows senior managers to quickly understand the plan. These summaries are usually three to five pages, with the following components:

1. Team name
2. Mission statement and list of major products and/or services—with references to specific sections and page numbers in the charter
3. Team leader name and organizational chart
4. Empowerments—the title and one sentence summary of each requested empowerment accompanied by its location in the charter by section and page numbers
5. Team operations concepts—summarize how the team will address each of the following items with the section and page number:
   a. Team decision-making process
   b. Team conflict resolution approach
   c. Relationships with other teams
   d. Plan for leadership transition and member replacement
6. Support requirements—provide a list of needed resources, with section and page numbers
7. Special considerations—any other items in the charter that require special review by senior leaders, along with section and page references

Approval of the charter is the last step before creating the team. Team plan/charter preparation is complete when all decision-making members of the team demonstrate their concurrence by signing the plan/charter and supporting executives conduct a

© Jones and Bartlett Publishers, LLC. NOT FOR SALE OR DISTRIBUTION.

final review and sanction the effort. In some cases the plan may become part of the organization's strategic planning process and gain final acceptance as one of the primary initiatives for the company.

Team Selection

Most organizations use quality improvement teams in two situations: for specific projects (e.g., for improvement of throughput in the emergency department) and for ongoing process management (e.g., patient care in a clinical unit or for management of a specific business function). In both situations the team's task dictates the composition of the group.

Some organizations develop the team charter before the team is chosen, whereas others may select a team and have the group create the charter. In the former case senior management often has objectives for the team, whereas in the latter situation senior managers may defer to the team's expertise to define and address the issue by first creating the charter. A few principles apply to selecting a team.

Team Composition

A well-rounded team includes a mix of people and skills:

- *Content experts:* People who have a deep understanding of the processes to be examined; these individuals may come from any area in the organization and may be at any level of the organizational chart.
- *Process users:* Staff members who use the process on a regular basis and work closely with customers of the process; these individuals bring a wealth of knowledge of the practical aspects of the process. In some cases labor union representation may also add value to the team.
- *Technical support staff:* These important members often provide support for the process through information services, technical maintenance, and repair of equipment that is vital to the process or have in-depth knowledge of a highly technical engineering aspect of the process.
- *Customers and suppliers of the process:* When possible these team members are added so that inputs and outputs from the process may be properly assessed.

The team may occasionally add new members to bring a fresh perspective to the process review. For example, consultants may serve on teams to bring a broader perspective and, perhaps, a level of objectivity to the team. In this role the consultant can enhance the team's work by widening the scope of potential solutions to process problems. Teams may also find other types of members helpful at times, such as staff members who operate parallel processes in other departments who may be able to help integrate the team's work with other initiatives in the organization.

© Jones and Bartlett Publishers, LLC. NOT FOR SALE OR DISTRIBUTION.

Team Selection Criteria

Every team should strive to have the "best and brightest" as members, but these people also need to also be able to work together. Desirable team member characteristics include:

- Creativity and open-mindedness
- Ability to work with others in a collaborative mode
- Respected among peers and organizational leaders

By finding team members with these qualities, the team leader can optimize the team's work environment as well as expedite the work of the group.

Team Size Considerations

The recommended size of the team varies depending on the team's scope of work. Process reengineering teams, for example, generally have between 3 and 12 members. Teams with three or four members tend to work faster and produce results quickly. Teams with greater than seven or eight members usually require additional facilitation and often require subgroups to allow the team to operate efficiently. Larger teams of more than eight members often have an "executive group" or core leadership subgroup of three to four people who manage the overall project and oversee subgroups consisting of between two and four people each.

Larger teams are sometimes necessary to attain broader functional representation to bring different business perspectives and a greater knowledge base to the project. The price of this larger size is usually a slower pace of the team's progress due to such issues as scheduling conflicts and longer times to reach consensus on complex issues.

The number of people on a team is always a consideration from a cost standpoint as well. Larger teams cost more to run, because the time taken from the team members' regular work creates costs in the affected departments.

Core Team Roles

Each team must have a certain number of defined roles for the team to function properly:

- Team leader
  - Coach team members in their roles in the group
  - Assume accountability for the team's actions and outcomes
  - Work with team members to define methods and approaches
  - Liaison with other organizational resources to ensure team effectiveness
  - Interact with the steering committee, oversight group, or executive champion

© Jones and Bartlett Publishers, LLC. NOT FOR SALE OR DISTRIBUTION.

  - Manage the budget
  - Resolve disputes and manage conflict
- Project manager (may be the team leader for small teams)
  - Develop the project schedule and milestones, with tracking
  - Manage all subgroup meetings and projects
  - Monitor progress and focus on timelines and deadlines
- Facilitator (not always required for small teams)
  - Plan and lead team meetings
  - Utilize team-building and management approaches to ensure team effectiveness
  - Coordinate meeting records and follow-up
- Team members
  - Carry out assigned tasks and contribute to team progress
  - Assume responsibility for team progress and meeting deadlines

See EXHIBIT 2.1 for an example of a case of team development. Once team roles are established and the charter is created, the team is ready for action!

Exhibit 2.1 Crew Resource Management—A Special Case of Team Development

Many healthcare organizations have taken a technique used by the aviation industry since 1979 that was designed to use all available resources, such as information, equipment, and people, to achieve safe and efficient flight operations. Many patient safety initiatives are designed around this approach, which empowers team members to interrupt a process when an error is detected. Crew resource management (CRM) programs usually involve three error elimination approaches: (1) avoidance of errors, (2) trapping potential errors before they occur, and (3) alleviation of error consequences after they have occurred. Effective CRM programs involve training teams in each of these three errors, but, even more fundamentally, the training is about empowering team workers to identify and deal with potential errors and creating a blame-free environment in which team members can be assured of being respected for their views and observations. Educational programs teach teams that fatigue, work overload, and emergency situations can create the situations in which errors become difficult to avoid. The ability to assess personal and team member behavior is important to effective CRM, and so team training includes curricula providing insight into behavioral aspects of team effectiveness. Additionally, team members are instructed in how to find relevant operational information and then how to advocate for correct processes, communicate appropriate actions, and resolve conflict productively.

© Jones and Bartlett Publishers, LLC. NOT FOR SALE OR DISTRIBUTION.

Teamwork Tools

Getting teams to work together may be easy or it can present a real challenge for the team leader. Many teams are selected for compatibility, but in some cases team members have no prior relationship, which creates a need for team building early in the process. Additionally, teams have a toolbox of approaches to help stimulate creativity and expedite the process of achieving the goals set out in the charter. These tools include:

- Brainstorming and its variants, like brainwriting and nominal group technique (NGT)
- Benefits and barriers exercises (BBEs)
- Multivoting and list reduction

All these approaches are designed to help teams explode with new ideas and then gradually winnow the list of ideas down to the critical few for the team to pursue.

Brainstorming

When To Use This Approach

Brainstorming's benefits arise from the group interaction and rapid generation of ideas. One of the major advantages of the approach may be the improved morale that it generates in the group, because a well-conducted session usually energizes the group and can enhance team cohesiveness.

Principles for Use

The brainstorming process is designed to help each team member feel empowered to contribute to the group effort. The basic framework of the procedures includes the following:

- *Strive for quantity:* Don't worry about the "quality" of ideas but rather work to generate the largest number possible, with the precept that within the large number of concepts generated will reside the nub of an innovation.
- *No criticism allowed:* Any ideas generated during the session are recorded without any critique offered. Group members should try to expand on a relatively weak concept rather than dismiss it. The atmosphere during the brainstorming session should remain completely supportive.
- *Go for the unusual:* One sign that the process is effective is the appearance of unusual or even bizarre ideas that may not have much chance to make the cut later, but often these thoughts stimulate variants that can be implemented.
- *Combine and improve ideas:* Group members should be encouraged to amplify, modify, or combine suggestions generated during brainstorming. Some facilitators

© Jones and Bartlett Publishers, LLC. NOT FOR SALE OR DISTRIBUTION.

like to put the equation "1 + 1 = 3" in plain sight during the exercise to emphasize this concept.

Procedure

The steps in the brainstorming process include the following:

1. Definition of the problem with a problem statement that is clear, focused, and usually formulated as a question like, "How can we move patients through the outpatient clinic faster?" If the question is too broad, then it should be divided into smaller, more manageable components like, "How can we ensure that the patient chart is available to avoid delays in outpatient?"
2. Provide background on the issue through a short summary sheet or informational handout for the group. Sent with the invitation to participate, the summary should provide a quick review of the issue so that potential participants can determine their interest and ability to contribute. The background sheet may include some example ideas, so that when the session slows down or goes off track, the suggestions may help stimulate thought and bring the group back into a focused framework. Participants should have a few days to consider the issue, and so the background information should be distributed several days in advance.
3. Select participants according to expertise and interest, much as the selection process for any other team. In most cases groups of 5 to 10 provide the best possibility of coming to some conclusions in a timely manner. In most cases participants come from the team responsible for the overall project or operational area, but in many cases group members from other departments or outside the organization may add new ideas or a different perspective to the process. One person should be designated the facilitator and one the recorder.
4. Prepare for lapses in creativity by having some motivational questions ready. For example, the facilitator might ask if some of the ideas may be combined, or if the problem might be viewed from another perspective (e.g., outpatient throughput from the nurse's standpoint).
5. Conduct the session with the facilitator leading and recording, ensuring that ideas and discussion are captured. Key to success of the exercise, however, is observance of the rules for equal participation and no criticism. In some cases new participants may need a short practice session to learn how to function in a criticism-free zone, and a mock session using a relatively easy question may be beneficial. When the session begins, the facilitator presents the question and brief background, with the assumption that everyone has already read the background information. As each participant provides an idea, the recorder puts it on a flip chart, marker board, or computer screen so that everyone can see. Occasionally, an idea may not be clear, and the facilitator may ask for further information before moving on to the next thought, but no idea should be vetted until the exercise has been completed. Once all ideas have been

© Jones and Bartlett Publishers, LLC. NOT FOR SALE OR DISTRIBUTION.

presented, the group might take a short break so that the facilitator can organize the ideas into logical subsets for the group to review. At this point, the list can be reduced by one or more of the techniques discussed later in this chapter.

Tips for Improving the Brainstorming Process

- Provide paper and pencil to allow team members to write down ideas if they find it hard to speak. The group member can then present it later when the rate of idea generation slows.
- Have the recorder number the ideas to help the team identify each thought but also as a running tally for stimulating productivity.
- Do not invite managers and superiors to reduce the likelihood that the team may be inhibited in creative thought.

Nominal Group Technique

When To Use This Approach

The NGT is a type of brainstorming that encourages all participants to have an equal say in the process and is often used when group members find it difficult to speak openly. It can also be used to narrow a list of brainstormed ideas.

Principles for Use

NGT is very useful in a large group that is subdivided into smaller subgroups to work on specific parts of the project. For example, to determine the parameters of a new service, like a new outpatient clinic, a large group may be formed with experts in a number of areas. One subgroup may work on the hours of the clinic, whereas another subgroup may work on staffing, and still another on the equipment needed in the clinic. Each subgroup returns to the larger group to gain help in ranking the listed ideas. In some cases ideas that were previously dropped may be brought forward again once the group has had an opportunity to provide input.

Procedure

Preparation involves ensuring that everyone on the team starts with the same information about the issue at hand. Participants are provided with background information, much as in brainstorming, and the work area is prepared for the session. Generally, the materials involve only pencil and paper, but more sophisticated systems may be used that allow for collaboratively entering ideas into a computer file that is shared via a whiteboard on an interactive system, for example, when participants are at different sites and must communicate via webinar.

Participants are asked to write down their ideas anonymously, and then each group member's work is collected by the facilitator and arranged for voting either by secret ballot or by show of hands in a process known as "distillation." After distillation, the

© Jones and Bartlett Publishers, LLC. NOT FOR SALE OR DISTRIBUTION.

top-ranked ideas may be sent back to the group or to subgroups for further brainstorming. After a few cycles, the NGT process usually yields a short list of ideas.

Brainwriting

When To Use This Approach

Also known as the "group passing technique," brainwriting is an approach that stimulates a group of reticent individuals to contribute to the brainstorming process. When the facilitator is having trouble gaining input from all participants, the brainwriting technique provides an approach that all but requires people to participate.

Procedure

The group is seated in a circle so that sheets of paper can be passed easily. Following a process similar to brainstorming, each person in the circle writes down one idea on a form, such as that shown in TABLE 2.1, and then passes the piece of paper to the next person in a clockwise direction. Each person in turn adds thoughts to the form and passes it to the next person, who also adds some thoughts. This procedure repeats until everyone gets his or her original piece of paper back. By the time the paper makes its rounds, a wealth of new ideas should be generated by the group.

A popular variant to brainwriting mimics the NGT. This alternate approach uses an "idea book" with a distribution list. Each person on the list receives the book and posts one or more ideas in the book. The book contains forms like in TABLE 2.1 and may address multiple problems rather than just a single issue as in a typical brainstorming or brainwriting exercise. Each individual can add new ideas or expand on any of the thoughts already in the book. The process continues until the distribution list is exhausted, and then a facilitator conducts a follow-up meeting to discuss the ideas logged in the book. Although the idea book technique takes longer, it allows individuals to spend more time to think more extensively about the problem(s). If time is not

Table 2.1 Example of a Brainwriting Form

Issue: Get to work on time

Owner: John Administration

Use alarm clock	Take a cab	Drive fast	Take a shortcut	Don't stay out too late the night before
Get a wake-up call	Get someone to drive	Have a taxi waiting when you're ready to go	Use alternative, like train or bus	Change expectations of work hours

© Jones and Bartlett Publishers, LLC. NOT FOR SALE OR DISTRIBUTION.

constrained in the search for a solution, the idea book approach may actually yield higher quality results.

Benefits and Barriers Exercise (BBE)

When To Use This Approach

The goal of this exercise is to help individuals or a group to identify the benefits of a particular change and to determine any obstacles to implementation of the change. Using this approach, a team can gain buy-in from its own members and from leaders who need to support the project. Additionally, the exercise can pinpoint issues that may interfere with the change process. The BBE is usually applied when a significant change is to be implemented and the extent of buy-in is unclear, or when the change is encountering resistance from one or individuals or groups in the organization. A BBE is often useful when the team has identified the need for a new initiative through brainstorming or other methods of idea creation, because the barriers portion of the exercise can help define some of the approaches that the group may consider to ensure effective implementation. Particularly important is the need to recognize who might raise the greatest resistance to the new proposal and ensure that those individuals or groups are represented in the deliberations of the exercise.

Procedure

The exercise uses one of the brainstorming approaches described earlier to generate ideas regarding the benefits of a particular change and the barriers to reaching the desired outcome.

1. Groups of interested staff members and customers are selected based on their interest or involvement in a proposed change. Larger groups should be subdivided into smaller subgroups of four to seven individuals, preferably mixed among departments or divisions to ensure diversity on each team and to gain a broad range of input.
2. Each subgroup, or "BBE team," includes a facilitator to organize and lead the discussion. The tools required are minimal, consisting only of a flip chart or a pad of paper on which ideas are recorded, although some teams now use an electronic "whiteboard" projected on a screen to record ideas and changes quickly.
3. Each subgroup then receives a complete briefing on the proposed change, including data where applicable, so that everyone understands the issue well. Facilitators for each BBE team lead a discussion of benefits for team members' individual situations, as well as those for external customers, suppliers, and internal customers, such as the board or executive managers. The facilitator may record these ideas or a recorder may be appointed to free the facilitator to lead the discussion.
4. The full group should reassemble at this point to share the lists of benefits from all the teams and begin the process of narrowing the list using list reduction

© Jones and Bartlett Publishers, LLC. NOT FOR SALE OR DISTRIBUTION.

approaches described in the next section. Once the list has been revised to a manageable level (usually 5–10 highest priority thoughts), the group often breaks for a period of time before beginning the challenging barriers portion of the exercise.

5. After the break, subgroups reconvene to discuss organizational barriers to the proposed change. In almost a reverse to the prior approach, organizational barriers are considered first, and then each barrier may be dissected further to a department, division, and even individual level. Thoughts are again recorded for presentation and discussion in the larger group.
6. As the larger group meets again, the similarities between the groups are highlighted and used to prioritize the list of barriers to be surmounted by the implementation process. Additionally, the group should spend time strategizing the ways that the benefits may be used to address the barriers during the period of change. At the conclusion of this portion of the meeting, the larger group will have identified the highest priorities for both emphasizing benefits and dealing with barriers during the change process.
7. The group leader will create a final report from the BBE that includes (1) a brief description of the issue, (2) a description of the proposed change, (3) benefits to all stakeholders, (4) prioritization of barriers, and (5) implementation strategies for overcoming barriers. Many groups share the report with group members for final ratification before submitting it to senior managers.

Tips for Improving This Approach

- It is usually best to begin with individual benefits before extending to more "macro" situations, because people can most readily define the benefits for themselves first and then combine and build on those benefits for other stakeholders.
- During the barriers portion of the BBE, the facilitator must use care to keep the issue in focus and avoid letting the discussion move to a personal level that may threaten group members and diminish effectiveness of the BBE.
- The break between the discussions of benefits and barriers may be of value in allowing group members to better understand the advantages of the proposed change before discussing the problems with implementation. Often, it allows group members to reflect on how these advantages may be leveraged to better address the potential detriments from the change.

List Reduction and Multivoting

When To Use This Approach

After one of the brainstorming approaches is completed, a team often ends up with a long list of alternative ideas to examine, but the list usually has duplicate or very similar ideas that need to be combined or eliminated to make the list more useful. The

© Jones and Bartlett Publishers, LLC. NOT FOR SALE OR DISTRIBUTION.

list-reduction process provides a method of making a long list of alternatives more useful by removing duplicates and combining similar ideas.

Procedure

List reduction and multivoting follows a process similar to brainstorming, but the goal is not to increase the number of ideas under consideration but rather to bring the list under control. The procedure that follows is designed to systematically pare the list to a manageable level:

1. Display the complete list of items for everyone involved and review the process with team members.
2. Review all items on the list to ensure full understanding by all team members of all items to be considered. Some items may be combined in this early phase if the combination does not reduce the impact of either of the items.
3. **First vote:** During the first round of voting, everyone is allowed to vote for the items on the list that they consider most significant, and the votes are not weighted in any way. Group members may only vote once for an item but may vote for any number of items that seem most significant. During this phase group members do not discuss or negotiate any of the items.
    - After the first round votes are counted, items with the larger number of votes are circled, with the team deciding how many votes are necessary to circle an item.
4. **Second vote:** All members vote a second time on the smaller list. This time each team member is allowed only the number of votes equal to half the remaining list, so if there are six items remaining, each team member may vote only for the three items they consider most important. Again, no lobbying or negotiation of voting is permitted.
    - The second vote process is repeated to continue reducing the list until there are only from three to five items remaining for consideration.

Tips for Improving This Approach

- Never reduce the list to one remaining item. Voting down to one item creates a win/lose situation not desired for team dynamics.
- Ensure that everyone clearly understands the process in the beginning. Distribution of a one-page summary of the rules at the outset of the exercise may provide the needed information to ensure the process works according to plan.
- Although this process reduces a list of ideas to a critical few, it may still be necessary to finalize a decision on just one item. In that case, other methods may be used (e.g., statistical analysis of critical variables).
- Multivoting works best when done quickly and with no discussion of alternatives. Discussion is allowed only if an item is unclear to the group.

© Jones and Bartlett Publishers, LLC. NOT FOR SALE OR DISTRIBUTION.

Discussion Questions

1. How do teams improve the performance of healthcare organizations? Give examples of team approaches in your organization.
2. How should senior managers and team leaders determine which projects are most important to the organization? Describe use of the approach in a healthcare organization.
3. Describe Goldratt's theory of constraints. How will the theory ensure appropriate team alignment with process improvement?
4. What is the basis of the "80–20 rule"? Compare this principle to Goldratt's theory of constraints.
5. What are the four stages of team performance? How does effective management of each stage ensure team success?
6. What situations make the team approach most likely to succeed? When is the team approach not as likely to produce the best results?
7. How can managers and leaders ensure success in situations when physicians are involved?
8. What are the major elements of a team charter? How does a charter contribute to team effectiveness and success?
9. Name the two situations in which most organizations deploy quality improvement teams. Provide an example of each from your experience.
10. What criteria should be used for selecting team members? What considerations should be given to determining team composition?
11. List the core team roles in a typical team. How does each one contribute to the team's function and success?
12. Describe crew resource management. Discuss the origins and advantages of this approach.
13. What are the most common methods of generating ideas in a group? Describe each approach with necessary caveats.
14. Why do groups use a benefits and barriers exercise? Describe the process and desired outcome.
15. How do groups create manageable lists of tasks from a brainstorming exercise? Describe the process and expected outcome.

Reference

1. Goldratt MV. "Theory of constraints" thinking processes: A systems methodology linking soft with hard. Retrieved July 2008 from http://www.systemdynamics.org/conferences/1999/PAPERS/PARA104.PDF

© Jones and Bartlett Publishers, LLC. NOT FOR SALE OR DISTRIBUTION.

Additional Resources

Allen J, Rogelberg S, Scott J. Mind your meetings. *Quality Progress*. 2008;April:49–53. Retrieved September 2008 from http://www.asq.org/quality-progress/2008/04/full-issue.pdf

Coppola N. Leveraging team building strategies. *Healthcare Executive*. 2008;May/June:70–73.

Institute for Healthcare Improvement. Engaging physicians: How the team can incorporate quality and safety. *Healthcare Executive*. 2008;May/June:78–81.

Joint Commission on Accreditation of Healthcare Organizations. *Using Performance Improvement Tools in Ambulatory Care*. Oakbrook Terrace, IL: Joint Commission on Accreditation of Healthcare Organizations; 1998.

Laman S. Testing the limits of team development. *Quality Progress*. 2008;April:35–38. Retrieved September 2008 from http://www.asq.org/quality-progress/2008/04/full-issue.pdf

Tague N. *The Quality Toolbox*. Milwaukee, WI: American Society for Quality; 2005.

Thiraviam A. Simple tools for complex systems. *Quality Progress*. 2006;June:40–44. Retrieved September 2008 from http://www.asq.org/pub/qualityprogress/past/0606/qp0606thiraviam.html

© Jones and Bartlett Publishers, LLC. NOT FOR SALE OR DISTRIBUTION.