that you can't quantify?

At all levels, employees must define ways of analyzing and describing their work and results by using flow charts and other simple graphic and quantitative methods. While it is new to the hospital world and not easy, one must quantify performance and measure it as far as is possible, and that includes developing standards for quality as well as for productivity. Only then can we elevate quality to be the prime goal in the minds of employees and medical staff, placing the goal of cost in its proper perspective—important but secondary to quality.

The importance of enlightened managers who can coach employees in their use of quality tools and who can engage them in active problem solving cannot be overestimated. Our training department has developed an intense 40-hour leadership development track in which all our supervisors participate. We also conduct “value-based” interviewing so that job applicants are screened for participation and teamwork skills as well as for other credentials.

Recognition of our successes is another key component of the program. Those of us who have watched PREPARE/21 evolve from a concept were thrilled to see how far it had come when we held an awards ceremony in February 1992. There, technicians, nurses, and patient transporters stood side by side accepting congratulations for their collaboration and contributions.

We are getting physicians more involved, too, as they realize that we are not assailing the quality of their care. Physicians will buy in when we talk about improving quality of care through improving the quality of the systems by which they deliver care. Overall, though, we have to define our expectations better, improve the training, and increase the understanding and sophistication of all employees and medical staff with respect to this program of participatory management. It is an ongoing, never-ending effort.

Changing the sociology of the workplace is a slow process. People involved in the Scanlon Plan in other industries have said it will take years of constant effort, five to seven years at least, before PREPARE/21 becomes an intrinsic part of the fabric of the organization. We talk about weaving it into the warp and woof of the organization. People seem to like that idea, and it makes the notion of years of effort more palatable.

PREPARE/21 is not simply the Scanlon Plan; it draws its basic ideas from Scanlon, and it also includes components of the ideas and techniques of other management systems and quality improvement programs. More important, it reflects the culture and values of Boston's Beth Israel Hospital and incorporates our own ideas of management as well. We expect PREPARE/21 to evolve continuously as we learn and grow. To the extent that this program improves quality at Beth Israel and leads to gains in efficiency and economy, and to the extent that it also helps employees and patients and medical staff feel better about what is being accomplished at Beth Israel, PREPARE/21 will be a success.

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Reference

monthly publication lists all submitted ideas—there were 510 ideas put forth in the first year—and we report by whom, to what the idea related, the action taken (that is, to whom it was referred), and what was done with it. We do not hesitate to reject an impractical idea, but we give the reason for turning it down. We think such candor leads to suggestions' becoming increasingly more realistic and sophisticated. The monthly Idea Report lists those ideas that have been accepted and the specific dollar savings that have resulted, savings that are incorporated into an immediate budget revision. Those dollar savings are then included in the gainsharing calculation. Their dollar value is distributed over the next 13 periods (that is, our fiscal year) so that once the idea is implemented, the dollar value is plugged into the gainsharing formula in a manner that has real meaning. Gainsharing value is derived from various formulas that translate impatient admissions, outpatient visits, expenditures for supplies, research grant awards, and other areas of the hospital’s performance into dollars and then compare these amounts with the amounts budgeted for these areas.

Hospital Performance Reports

Every four weeks, to let employees know how we are doing, we issue a PREPARE/21 Period Performance Report. This is disseminated through work team leaders, who meet once a month to learn the “weather” as well as the news about the hospital’s financial status and a variety of other information. The cover page comments on our performance for that fiscal period and year-to-date, and gives some of the reasons for major variances. The graphics continue to evolve, since we are constantly looking for clearer ways to present complex data and calculations. This report, too, is in English, French, and Spanish. The inner pages graphically display adult discharges, outpatient visits, lengths of stay, case-mix, and other operating indexes. Also reported are operating income, salaries and wages, supply expenses, and the operating bottom line for the fiscal period and for the year-to-date, all in relation to budget. We have also separated those expenses employees cannot influence from those they can, so that employees will understand on what basis the calculations of gains are being made.

Results

What are the results? In year one, October 1989 to September 1990, the hospital’s bottom line had been budgeted at $828,000. Happily, the operating bottom line came to much more: $4.8 million. About half of that was the result of a settlement with the Rate-Setting Commission over some 1984 rates. Our best estimate is that somewhere between $1 million and $2 million was the result of ideas employees provided that were fostered by the PREPARE/21 program. Of the 510 ideas submitted, 46% were implemented. Yet only a small part of the estimated savings resulting from these ideas could be documented, which probably will be the case every year. This is because many of the ideas produce cost savings, greater efficiencies, and improved quality in ways that create savings but that cannot be directly traced to a specific suggestion. Also, many of the ideas have pay-offs that may be greater in the future than they are immediately after implementation.

In retrospect, we were interested to see that many of these initial ideas were narrowly focused: people looked specifically at their own work, their own desks or departments. Broadening the scope of ideas was one of the targets for 1991 and beyond. All told, the PREPARE/21 gain we paid to employees over that first fiscal year was 0.7% of their total salaries. In year two, the gain was 0.6%. Incidentally, there is a maximum payout to the most highly paid individuals. Gains are paid as a percentage of one’s salary up to a maximum of what the IRS defines as “highly compensated,” which in the program’s first year was about $50,000 annually. People who earn more than that do not get larger gains, allowing for a more meaningful distribution of the gains throughout the organization.

Lessons Learned

Toward the end of that first fiscal year we invited a distinguished task force of experts from outside Beth Israel to evaluate the effectiveness of PREPARE/21 and give opinions on what mid-course corrections were necessary. The task force was composed of four distinguished academicians in management, organization development, and psychology; the chairman of the board of a furniture company with 30 years’ experience with the Scanlon Plan; and a management consultant. They were clear and helpful in their views of the program’s first year at Beth Israel, observing that there was uneven buy-in, particularly by physicians; that linkage between the hospital’s mission and PREPARE/21 needed better definition, since too many people saw it as merely cost savings and there was not yet enough emphasis on quality; that we had been good at solving certain narrow functional problems but less effective in dealing with systems issues, particularly those crossing departmental barriers; and that some of the forms we were using in the idea submission process were very complicated and needed simplifying. We acted on these criticisms and reported progress on all the issues to the task force when they came back in June 1991.

Second Year and Beyond

During 1991, our second year, our focus was broadened to pay more attention to systems. We added an internal quality improvement consultant and are beginning to emphasize and incorporate in PREPARE/21 some of the measurement and statistical techniques typically used in quality improvement programs in industry, because of the fundamental question, how do you know you are doing better if you can’t measure what you are doing? More important, how can you set and evaluate goals
deal with ideas that cross departments, and sometimes ad hoc work teams are formed when a submitted idea involves a number of departments or a unique situation. None of this is new as a process, but PREPARE/21 allows us to articulate it in a way that fosters the genesis of ideas and their best handling. And what is rather new is that this is happening in a major teaching hospital, an organization far more complex than most furniture plants or steel mills.

**Equity Subcommittee**

The Equity Subcommittee dealt with the notion of fair return, defining how we would share any gains resulting from the program. An important initial concept was that the gains we measured had to come from the reduction of costs or an increase in revenues. By contrast, those activities over which the employee had no control, such as depreciation or interest payments, would not be included in the gain calculation.

The system of sharing gain (i.e., "gainsharing") had to be understandable; it had to help foster that critical sense of ownership that is so crucial to the plan's overall effectiveness; and the dollar rewards had to be distributed broadly across the organization. We wanted to reinforce the importance of teamwork and the interdependence of hospital departments. Equity also embodies another concept: if one invests, one has a right to expect some return on the investment. We embrace the notion that employees invest in the hospital, as do patients, managers, trustees, staff physicians, and other referring physicians in the community—all have the right to some return for their specific investments.

**PREPARE/21 Booklet**

The net result of the work of the subcommittees was a document on PREPARE/21. It is written in an interesting, user-friendly format. It is a useful way of presenting a large amount of material for ready access to a diverse readership. Illustrations are used—for example, to demonstrate the progress of a suggested idea moving through the system. The booklet is available in three languages, English, Haitian French, and Spanish, reflecting the ethnic mix of Beth Israel's employees and the importance of broad buy-in.

**Trustees' Approval**

With the PREPARE/21 document and a projection of what our gainsharing might be for the operating bottom line, we went to the Board of Trustees, who had been kept informed of how the program was developing, for their formal approval. Some board members hesitated, because the idea of formally sharing any improved bottom line with employees in a not-for-profit enterprise concerned them. However, they endorsed the plan once they understood the overall thrust of our intention: that is, that the administration would continue to make its annual operating budget as tight as possible, and there would be no gaming on budgets in order to "look good" or to produce gains.

Once the budget is as tight as possible, then anything better than that which can be influenced by employees can be viewed as "found money," whether these funds are from increased revenues from admissions, direct cost savings on existing budgets, or money-saving ideas implemented through the program's participation process. In these cases, the gain is shared 50–50—half for the hospital, half for the employees. For the actual payout, some reserves are held back every fiscal year so that the process is real yet tempered to provide some buffer for those fiscal periods when the gain calculation may come up negative. In agreeing that the plan was worth a try, the Board of Trustees gave us a vote of confidence that we found very reassuring.

**Ongoing Operation and Development**

From 1985, when we first learned about the Scanlon Plan, and after we began creating the Beth Israel version of it in 1986, there was a long period of education before we finally got approval to continue its implementation, first from the employees and then from the Board of Trustees. Both were kept informed from the start, with educational efforts gradually increasing as we sought the trustees' formal approval. The plan has been in full operation since the start of fiscal year 1990, that is, October 1989.

**Communication**

We use many communication mechanisms to keep people aware of what is going on. Naturally, our employees' newsletter, the BJ Examiner, carries a great deal about PREPARE/21. A centerfold in every issue features ideas offered by employees; this, too, is another way of providing rewards through personal or departmental recognition. If the rewards were only dollars in gainsharing, the program would not work, for in tough times, an organization will not always do better than its original budget. Actually, the cash awards themselves have been fairly small, but they are paid by means of separate checks, which are bright purple and inscribed with "Thank You" to emphasize the importance of employees' participation to improve quality, rather than being simply a cash reward for good work. There are a number of other important communications—for example, the weekly Dear Doctor letter and the weekly Employee Newsletter from the hospital president's office have periodic information and encouragement about PREPARE/21. There is also an occasional special newsletter, "PREPAREPORT."

**Submitting Ideas**

There are special forms for submitting ideas, and an increasingly smooth, rapid, and still evolving methodology for reviewing these ideas, acting on them, and providing the feedback on every one. The idea form was initially quite complicated and has been simplified over time. A
ceive a fair return on that investment. This mechanism is discussed more fully later in this essay.

Compatibility with Beth Israel

We felt these mechanisms of the plan were in harmony with both what existed and what we wanted to develop in the work culture of our hospital. At Beth Israel, there is a tradition of openness and sharing and fair treatment, yet the concept is not simply that of one big, happy family where there are no differences. We saw that the Scanlon Plan actually encourages the recognition of differences. After all, if you have a better way to do your job than the manager has decided for you, that is a difference. The plan helps create a climate of trust and openness, and provides ways for individuals who have common goals to voice their differences and then resolve them in a cooperative manner.

In addition, the Scanlon Plan offered us several other advantages. In the world of health care, where dramatic changes are the order of the day, the plan presents an interesting and useful way to meet the ongoing problem of change. Also, we saw that if it proved successful, it could lead to having a large number of employees and medical staff who would own the problems of quality, productivity, and efficiency, and they, in daily contact with patients, would then demonstrate positive attitudes toward the necessary restrictions and restraints of hospital budgets. Certainly it is far better to have the staff feeling, “Well, times are tough, but at this hospital we are managing,” than to have them feel that they are victimized by circumstances or that “the management of this hospital is kicking us around to achieve the economies they seek.” For an example of what we mean by owning the problems of quality, productivity, and efficiency, see the boxed text entitled “Owning the Problems.”

Preparation

Although we felt the plan’s concepts were compatible with Beth Israel’s work culture, it took us some time to move to the practical level of preparing for and implementing the plan. We were helped greatly by persons who were familiar with how the plan operated, and by a visit to a furniture manufacturing plant in Michigan where we interviewed managers and workers.

Misgivings

Even when we knew enough to begin introducing the plan, we had misgivings, for we represented a service organization rather than a manufacturer. Typically, the Scanlon Plan has been used in companies with employee bases of several hundred, not several thousand. The unique role of physicians, the problem of higher employee turnover in hospitals than in most production organizations, and the complexity of the services we provided raised questions of whether and how we could engender the kind of responsiveness in the hospital that we knew the plan had evoked elsewhere. With such a diversity of people delivering the goods, could we make participatory management a success at Beth Israel?

Education

Despite the lack of a definite answer to this question, by 1986 we had decided to use the Scanlon Plan as the basis for introducing participatory management into the work culture of Beth Israel, assuming both the employees and the Board of Trustees would approve. We realized, however, that approval and implementation had to be preceded by a period of educating the entire staff and then seeing whether they would be willing to give the plan a try. One cannot simply convince top management to be committed and assume that implementation will then occur.

We in management began educating small groups of ten or 15 people at a time, not telling them that “we’re going to do the Scanlon Plan” but “here are some of the principles, and we want to know whether you think it ought to be explored further.” We went through the entire hospital using this small-group approach and asked people to vote after each meeting by an informal but secret ballot, in order to allow the nay-sayers full expression. Our question at that time was something like “Do you think we should pursue this further, and would you be willing to elect a group of your peers to develop a plan for us to consider for Beth Israel Hospital?” The responses indicated overwhelming support to go farther and implement the plan.

Implementation

We decided to call our program PREPARE/21; we chose this acronym to signify a program to prepare us for the 21st century. Each letter represents a key aspect of the program: P for Participation, R for Responsibility, E for Education, P for Productivity, A for Accountability, R for Recognition, and E for Excellence (for the 21st century). A committee of 75 people was elected from all segments of the hospital. This was immediately subdivided into three groups of 25, in order to develop the three major components of the Scanlon Plan: identity, participation, and equity.

Identity Subcommittee

The Identity Subcommittee developed a document describing our mission, our history, the health care environment, the relationship of the success of individuals and individual units of the hospital to the organization’s overall success, and our philosophy of change.

Participation Subcommittee

The Participation Subcommittee addressed the importance of working together to achieve hospital goals. This collaboration is the cornerstone of PREPARE/21: the efforts of work teams (generally equivalent to existing departments or organizational subunits of the hospital) to generate suggestions that focus on improving quality or efficiency within a particular department. Other work teams
Joseph Scanlon

In 1930, Joseph Scanlon, a steel worker and union leader, was working at a small steel company that was about to fold. He conceptualized the management principles that later bore his name and was able to convince the company leadership that his principles applied to and by the employees could save the company. It worked. He went on to the United Steel Workers and there created some significant improvements in union-management relationships. Ultimately he was invited to teach at the Massachusetts Institute of Technology. Among the faculty there at that time was a young man named Carl Frost. Now in his seventies, he is still active as a consultant and remains very enthusiastic about the Scanlon Plan.

goals and in supporting the groups or teams to which they belong. These positive attributes of people are most evident when (1) all members of the organization are enabled to participate as fully as they can in its activities and (2) they feel that they are recognized personally and are equitably rewarded for their participation.

These potentials of employees can be evoked through types of management that encourage them to identify with their work group and its relationship with the overall mission of the entire organization. The Scanlon Plan is a fluid process that enables individuals to effect change, not a system of rigid procedural rules.

Two Mechanisms

The plan has two mechanisms to foster employees’ positive participation in their work. One is a process designed to ensure that all members of the organization have the opportunity to improve productivity, primarily through an open suggestion system and a committee structure that encourages, evaluates, and acts on these suggestions, and communicates action taken on them—and does so fairly quickly. The central concept, which is not unique to the Scanlon Plan, is that the person doing the work will usually have excellent ideas about how to do it better. The following are examples of this concept in action at Beth Israel once we began implementing the plan:

The staff in the admitting office recognized far sooner than did top management that with the advent of same-day admissions in ambulatory surgery, the admission process—which was an efficient one for the conventional admissions of yesterday—was no longer viable. Because the admissions staff had an opportunity to identify the problems, propose solutions, and help implement them, they did not become alienated and discouraged, and the system did not remain bogged down.

Delays in the arrivals of patients at the computerized axial tomography (CAT scan) unit had been seen as “somebody else’s problem” by the radiology technicians, transporters, unit coordinators, and floor nurses involved; each group was blaming the other. As a result of PREPARE/21, they were challenged to solve the problem of delayed arrivals. They formed a team, collected and analyzed data on the delays, and were able to tackle the problem systematically and successfully. Over a few months’ time, the delays—which typically had been 15 to 45 minutes—disappeared. Now, 95% of the CAT scan patients arrive within 5 minutes of the scheduled time.

These examples show how the involvement of individual employees means that they have both the opportunity and the responsibility to influence the organization’s decision making, within their areas of competence.

The other mechanism of the Scanlon Plan is a means to provide equitable rewards for all members of the organization who improve its productivity. Included in this mechanism is the concept that people should know not only how their job or department relates to the larger mission of the company, but also how the company is doing overall, and that when there is improved productivity, the rewards should be fairly determined and equitably distributed by sharing the resulting gains. In other words, when people invest their time and effort in working together to achieve the goals of the organization, they should re-

Owning the Problem

In our attempt to understand how the Scanlon Plan actually worked, we visited a furniture company in Michigan, toured the plant, and met workers on the floor. We were astounded at their attitudes. For example, on the loading dock was a burly, tattooed worker. We asked him, “What’s important about your job?”

He looked at us as if we had just hit him in the stomach. “What’s important about my job? Don’t you understand? You see that desk over there? Now that is cherry, and it has right-hand drawers. Suppose we send it out with left-hand drawers? You know what that costs? The customer gets mad, he sends it back, we pay the freight, and our company’s a lousy organization. All that eats into the profit, so we put the correct drawers on and send it back—but we made a mistake and used walnut drawers. How long do you think that guy’s going to buy from us?”

He turned to us and said, “Do you know that overseas they can make this same stuff, same quality, and ship it to the United States for 35% less than we’re doing it right now? So the real question about my job is, do we want to be a company that manufactures furniture, a company that employs 2,000 people, or do we want to be a company that imports furniture and employs only 20?”

We thought: This guy owns the company! And we finally understood what “owning the problem” meant. That loading dock worker really did own the problems of quality, economy, and performance.
MITCHELL T. RABKIN, M.D., and LAURA AVAKIAN, M.A.
Participatory Management at Boston’s Beth Israel Hospital

Abstract—In the mid-1980s, the senior management of Boston’s Beth Israel Hospital became concerned that continuous cost-cutting efforts could lower the quality of the hospital’s services and the morale of its staff. This led them to investigate organizational approaches to “participatory management” to determine whether any of these might be of value to the hospital. They decided that an approach developed in the 1930s called the “Scanlon Plan” would be compatible with the workplace culture of Beth Israel, could help the hospital meet the ongoing problems of change, and could help the staff at all levels develop a sense that they owned the problems of quality, productivity, and efficiency, which would motivate them to address these problems constructively in the face of necessary budget constraints. This plan has two mechanisms to foster employees’ positive participa-

tion: (1) a process to ensure that all members of the organization have the opportunity to improve productivity, primarily through an open suggestion system and a responsive committee structure, and (2) a means of providing equitable rewards for all members of the organization as productivity and quality improve. This essay describes in some detail the plan and why it was selected, explains how it was adapted, prepared for, and finally implemented in 1989, and reports its success, lessons learned, and future plans as of early 1992. The authors believe Beth Israel’s experience with the Scanlon Plan is noteworthy as an example of a leading teaching hospital’s taking a quality improvement program seriously and making it work. Acad. Med. 67(1992):289–294.

The economic and regulatory environments in which hospitals function are going through dramatic changes. A new world is emerging that challenges the ability of teaching hospitals, in particular, to provide quality patient care, unrestricted access, excellent teaching, and leading-edge research. For some time, we in the senior management of Boston’s Beth Israel Hospital have been exploring ways to meet this challenge so that our hospital can maintain and improve the high quality of its programs.

One of our most important concerns has been that our continuous cost-cutting efforts could lower the quality of our services and the morale of our staff. In 1985 this led us to investigate organizational approaches to “participatory management” to determine whether any of these could be of value to Beth Israel. This essay is a report of (1) the system we selected and why, (2) how we adapted and implemented the system, (3) the lessons we have learned, (4) future plans, and (5) our conviction that over time, the system will increasingly succeed in achieving our main goal—fostering better morale and quality of performance in our staff—as well as the lesser one of effecting modest cost savings.

We believe it is important to report what we have done. Not because the participatory management system we have adopted is new—it was conceived in 1930. Nor because there are likely to be major cost savings—that was never the primary goal anyway. What we find unusual and noteworthy is that the managers of a leading teaching hospital, in response to the threat that today’s conditions pose to the fulfillment of its mission, have taken a quality improvement program seriously, are pleased with the results thus far, and believe this approach to solving the hospital’s problems will be viable for decades to come.

The Scanlon Plan

Among the systems to promote corporate efficiency and quality that we learned of in 1985, one that especially attracted us was the Scanlon Plan. It seemed well suited to Beth Israel’s needs and culture, and had been successful in various organizations, particularly in the Midwest, since its invention during the Great Depression (see boxed text entitled “Joseph Scanlon”).

Philosophy

The Scanlon Plan is a theory of the sociology of the workplace and a set of management principles. The basic assumption is that people desire to express themselves in all situations, including at work. When they do so at work, they can be constructive in helping the organization achieve its