Since the Institute of Medicine (IOM) released the report *Crossing the Quality Chasm: A New Health System for the 21st Century,* few health care systems have succeeded in making the substantial transformations necessary to achieve the IOM’s recommended aims: care that is safe, effective, patient centered, timely, efficient, and equitable. Transformational change requires a fundamental shift not only in structures and processes, but also in the inherent culture and values of an organization.

Care teams on medical–surgical units have a long history of providing high-quality care to patients. However, the demands of caring for an aging population, the increased acuity and complexity of patients’ needs, inefficient care processes, and burdensome documentation requirements result in a complex, challenging work environment. Another challenge to providing high-quality, patient-centered care is the high turnover of nursing staff. The national average for nursing turnover in U.S. hospitals ranges from about 8% to 14% per year; and the rate for nurses on medical–surgical units may be even higher. To restore the vitality of the nursing staff and care teams, reduce inefficiencies in care processes, decrease nursing turnover, and improve outcomes for patients and family members, medical–surgical units must undergo a fundamental redesign and cultural transformation.

**Transforming Care at the Bedside (TCAB)** is a vehicle for doing this.

**WHAT IS TCAB?**

Launched in 2003, TCAB is a national program initially developed and led by the Robert Wood Johnson Foundation (RWJF) and the Institute for Healthcare Improvement (IHI). TCAB engages leaders at all levels of the health care organization and empowers front-line nurses and other care team members to improve the quality and safety of patient care on medical–surgical units, increase the vitality and retention of nurses, engage patients and families and improve their experiences of care, and improve the effectiveness of the entire care team. These four design aims or themes—safe and reliable care, vitality and teamwork, patient-centered care, and value-added care processes—served as the initial framework for formulating changes to achieve the goals of TCAB.

Several characteristics distinguish TCAB from other quality improvement initiatives. First, TCAB engages the hearts and minds of front-line staff and unit managers in improving care processes. With TCAB, new ideas for transforming the way care is delivered don’t come solely from hospital leaders or the quality improvement department, but from front-line nurses and other care team members—the people who spend the most time with patients and their families.

Second, TCAB fosters transformative change. Leaders and front-line staff challenge and validate their assumptions, critically reflect upon their experiences, and develop new perspectives and paradigms.

For example, TCAB promotes viewing patients and family members as full partners when making decisions about their care, rather than viewing them simply as recipients of care.

Third, TCAB emphasizes continuous learning and discovery. Teams test new ideas and continually aim for process improvements; they learn their way to the desired results. At the heart of TCAB is the Model for Improvement developed by the Associates in Process Improvement. This model guides teams to focus on three questions: What are we trying to accomplish? How will we know that a change is an improvement? What changes can we make that will result in improvement? The Plan–Do–Study–Act (PDSA) cycle is used to test and implement changes on the TCAB pilot units. The PDSA cycle was originally developed by Walter A. Shewhart as the Plan–Do–Check–Act cycle. W. Edwards Deming
modified Shewhart’s cycle, replacing “check” with “study.”

A team of front-line staff identifies and tests changes and observes the results to see if the changes are feasible. The team then uses quantitative and qualitative data collected during these “tests of change” to determine if the idea should be adopted, adapted, or abandoned. (See Testing and Implementing Changes Using the Plan–Do–Study–Act Cycle for a description of how one TCAB team applied the PDSA cycle.)

This supplement to the American Journal of Nursing illustrates how hospitals around the country are using these strategies to transform the care they deliver. Their stories represent learning experiences not only for the units that engaged in TCAB, but also for others that want to try this approach to transformative quality improvement.

Additional TCAB resources can be found at the Websites of the RWJF (www.rwjf.org/qualityequality/product.jsp?id=30051) and the IHI (www.ihi.org/IHI/Programs/StrategicInitiatives/TransformingCareAtTheBedside.htm).

THE RWJF–IHI INITIATIVE

In July 2003 the RWJF awarded the IHI the first of three TCAB grants. The grants covered design work

<table>
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<tr>
<th>STEPS</th>
<th>EXPLANATION</th>
<th>EXAMPLE: RESIDENT ORIENTATION</th>
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| PLAN — Devise the test or observation, including a plan for collecting data. | • State the objective of the test.  
• Predict what will happen and why.  
• Develop a plan to test the change. | • Discuss how to improve communication between nursing staff and resident physicians and to improve residents’ familiarity with unit practices.  
• Review staff vitality data.  
• Discuss the new program with the senior resident.  
• Develop a way to evaluate the process. |
| DO — Try the test on a small scale. | • Carry out the test.  
• Document problems and unexpected observations.  
• Begin analysis of the data. | • Develop a standardized resident orientation.  
• Create handouts.  
• Provide a monthly, standardized orientation for residents.  
• Administer an exit survey after residents complete their rotation. |
| STUDY — Analyze the data and study the results. | • Complete analysis of the data.  
• Compare the data to predictions.  
• Summarize and reflect on what was learned. | • Use the exit survey to evaluate residents’ experiences.  
• Evaluate prechange and postchange responses of patients and families on Press Ganey surveys.  
• Evaluate prechange and postchange responses of nurses on Staff Vitality Survey. |
| ACT — Refine the change based on what was learned from the test. | • Determine what modifications should be made.  
• Prepare a plan for the next test. | • Change time of orientation to avoid conflicts with residents’ other activities.  
• Expand content according to residents’ feedback.  
• If next orientation is successful, spread resident orientation beyond the unit to general medical units. |

Transforming Care
and activities of the pilot hospitals during three phases, through April 2008.

The TCAB design team, consisting of 19 IHI faculty and process improvement experts, led the project through all three phases of the TCAB pilot (for their names, see TCAB Design Team). Through all three phases of TCAB, the design team applied the IHI’s Idealized Design Process, which brings together organizations committed to comprehensive system redesign. The design team created the TCAB framework; convened and facilitated site visits, face-to-face meetings, and conference calls; helped teams on the pilot units create their strategies; coached these teams through testing, implementation, and spread of new ideas; synthesized what was learned; and fostered communication and learning among the pilot hospital teams. With the support of the TCAB design team, the front-line teams and managers on participating medical–surgical units created and tested innovative changes in their processes of care to achieve new levels of performance and better quality outcomes.

Conceptual framework. Throughout the three phases, a conceptual framework served as the “north star” for both the design team and the hospital teams navigating toward transformation. The TCAB framework evolved as teams identified the most effective changes for transforming care at the bedside. Figure 1 shows the October 2008 version of the TCAB conceptual framework.

The framework provided TCAB hospital teams with direction and a vision—the key design themes of safe and reliable care, vitality and teamwork, patient-centered care, and value-added care processes. Target goals for an improved level of performance were set for each of these themes. The conceptual framework also depicted the development status of high-leverage changes in the pilot hospitals. High-leverage changes are thought, on the basis of results over the four years of phases 2 and 3, to be most likely to result in improved outcomes.

A fifth theme, transformational leadership, was added to the TCAB framework during phase 3. The design team realized that the success of TCAB ultimately depends on the commitment of leaders at all levels of the organization to pledge the resources necessary to support and sustain the innovations—ranging from the senior executives who set strategic priorities, to the midlevel clinical leaders who empower staff and orchestrate change, to the front-line leaders and staff who test new processes to improve patient care.

The three phases. In phase 1 of TCAB, three pilot hospitals—Kaiser Permanente Roseville Medical Center in California, Seton Northwest Hospital in Austin, Texas, and the University of Pittsburgh Medical Center

<table>
<thead>
<tr>
<th>TCAB DESIGN TEAM</th>
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<tbody>
<tr>
<td>• Annette Bartley, MSc, MPH, RGN, director, The Health Foundation’s Safer Patient Network, United Kingdom</td>
</tr>
<tr>
<td>• Barbara Boushon, BSN, RN, director, Institute for Healthcare Improvement (IHI), Cambridge, Massachusetts</td>
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<tr>
<td>• Peter Coughlan, PhD, transformation practice leader, IDEO, Palo Alto, California</td>
</tr>
<tr>
<td>• Connie Crowley-Ganser, MS, RN, senior vice president, quality and safety, Lahey Clinic, Burlington, Massachusetts</td>
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<td>• Frank Federico, RPh, executive director, strategic partners, IHI</td>
</tr>
<tr>
<td>• Ann Greiner, director, IHI</td>
</tr>
<tr>
<td>• Maura LeBaron-Hsieh, project coordinator, IHI</td>
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<tr>
<td>• Betsy Lee, MSPH, RN, director, Indiana Patient Safety Center, Indiana Hospital Association, Indianapolis</td>
</tr>
<tr>
<td>• Diane Miller, director, IHI</td>
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<td>• Ron Moen, MS, MA, senior fellow, IHI, and associate, Associates in Process Improvement, Detroit</td>
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<tr>
<td>• Gail A. Nielsen, BSHCA, RTR, education administrator, clinical performance improvement, Iowa Health System, Des Moines, and George W. Merck Fellow, IHI</td>
</tr>
<tr>
<td>• Carrie Peck, project manager, IHI</td>
</tr>
<tr>
<td>• Patricia Quigley, PhD, ARNP, CRRN, FAAN, assistant director—nurse researcher, VISN 8 Patient Safety Center of Inquiry, Tampa, Florida</td>
</tr>
<tr>
<td>• Pat Rutherford, MS, RN, vice president, IHI</td>
</tr>
<tr>
<td>• Marie W. Schall, MA, director, IHI</td>
</tr>
<tr>
<td>• Diane Shannon, MD, MPH, medical writer, Brookline, Massachusetts</td>
</tr>
<tr>
<td>• Dan Souw, project coordinator, IHI</td>
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<tr>
<td>• Jane Taylor, EdD, improvement advisor, IHI</td>
</tr>
<tr>
<td>• Jill Toncer, project coordinator, IHI</td>
</tr>
<tr>
<td>• Paul Uhlig, MD, surgeon, University of Kansas School of Medicine—Wichita</td>
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</table>
Figure 1. TCAB Conceptual Framework, October 2008 Version

Source: The TCAB initiative led by the Institute for Healthcare Improvement and the Robert Wood Johnson Foundation
at the Bedside
2008

THE ORGANIZATION: All medical and surgical units
ented results.

MAKE THE CFO A QUALITY CHAMPION
ENGAGE WITH PHYSICIANS
BUILD IMPROVEMENT CAPABILITY

PATIENT-CENTERED CARE: Truly patient-centered care on medical and surgical units honors the whole person and family, respects individual values and choices, and ensures continuity of care. Patients will say, "They give me exactly the help I want (and need) exactly when I want (and need) it."

VALUE-ADDED CARE PROCESSES: All care processes are free of waste and promote continuous flow

95% of patients are willing to recommend the hospital

Readmissions within 30 days are reduced to 5% or less

CREATE PATIENT-CENTERED HEALING ENVIRONMENTS
INOLVE PATIENTS & FAMILY MEMBERS IN MULTIDISCIPLINARY ROUNDS AND "CHANGE OF SHIFT" REPORT (CUSTOMIZING CARE TO PATIENT’S VALUES, PREFERENCES & EXPRESSED NEEDS)

INOLVE PATIENTS & FAMILY MEMBERS ON ALL QI TEAMS

OPTIMIZE TRANSITIONS TO HOME OR OTHER FACILITY

CREATE ACRUITY ADAPTABLE BEDS

CREATE ACRUITY ADAPTABLE BEDS

ELIMINATE WASTE & IMPROVE WORK FLOW IN ADMISSION PROCESS, MEDICATION ADMINISTRATION, HANDOFFS, ROUTINE CARE & DISCHARGE PROCESS

Nurses spend 60% or more of their time in direct patient care
THE TCAB JOURNEY AT THE SETON FAMILY OF HOSPITALS

The improvement process utilized in the Transforming Care at the Bedside (TCAB) initiative follows a series of steps to involve nurses and other care team members in generating ideas for change, testing each change, implementing those changes that test well, and spreading them to other care settings.

The TCAB leaders at the Seton Family of Hospitals in Austin, Texas, made a few adaptations to these steps as they spread the process utilized in TCAB beyond the pilot unit to other units and hospitals in the system. Their spread activity is described in detail in “Spreading TCAB Across Network Hospitals.”

1. **Storytelling**—A TCAB team tells a story about an experience that strongly affected patients or staff, either negatively or positively.

2. **Snorkeling**—The group conducts a brainstorming session to generate ideas for change.

3. **Prioritizing**—The TCAB team uses a four-quadrant matrix to determine what ideas to test first. The goal is to find low-cost solutions that are also easy to implement or have high impact.

4. **Building a hypothesis**—The team uses the Plan–Do–Study–Act format to predict how the test would change the outcome.

5. **Conducting a small test of change**—Testing of the idea begins with one nurse on one shift with one patient.

6. **Evaluating the outcome based on the hypothesis**—The team explores measures that can assist in their evaluation of the results and reviews what they learned with the test.

7. **Adopting, adapting, or abandoning**—Based on the evaluation, the team decides whether to proceed with the change, modify it, or move on to another test of change.

8. **Rapid-cycle testing**—If the initial test shows the original idea should be adapted or adopted, the team begins rapid-cycle testing. The tests hone the change if it’s being adapted or confirm that it is suitable for adoption.

9. **Spreading the change**—After the change is implemented and proves to be better than previous practice, it is spread to other units and facilities.

(UPMC) Shadyside—were invited to test, or “prototype,” concept designs and ideas that might create transformative models of care. Over a nine-month period, these hospitals generated ideas and helped the IHI faculty and improvement advisors establish design targets, create a list of potential changes, and compile a list of measures. By the time the phase 1 grant expired in March 2004, a number of changes that were considered likely to lead to dramatically improved performance on medical–surgical units had been identified.

In May 2004, the RWJF and the IHI launched phase 2 of TCAB, with 10 more hospitals joining the three phase 1 facilities. Front-line teams on TCAB pilot medical–surgical units at these 13 hospitals tested, adapted, and implemented changes related to the four themes of the initial TCAB conceptual framework. Each pilot unit submitted a monthly report that included data on the outcome measures developed in phase 1 and a summary of the changes tested and implemented. The design team supported and coached the hospital teams both individually and collectively, building a robust learning community with learning sessions, site visits, and storyboard rounds (lively interactions among hospital team members to discuss how they were implementing innovative changes). By the end of phase 2 in April 2006, the TCAB units demonstrated promising results, which are summarized in the IHI white paper *Transforming Care at the Bedside.*

Ten of the 13 phase 2 hospitals continued participating in TCAB in phase 3, which began in May 2006 and ended in April 2008. The aims and objectives of this phase were similar to those in phase 2. The teams continued to test new changes and developed models for providing exemplary care on medical–surgical units. Many of the phase 3 units subsequently spread TCAB processes and changes to other units and to other hospitals within their systems and networks.

**Staff activity on pilot units.** Each pilot unit formed a team of nurses and other care team members to work on the TCAB initiative. The TCAB pilot unit teams used a variety of sources to identify new ideas for improvement. Sources for new ideas included:

- an adaptation of IDEO’s “deep-dive” technique called a “snorkel.” This brainstorming technique encouraged front-line staff to make observations and generate creative solutions to problems. Conducting “snorkels” with staff energized them and resulted in valuable ideas for improving care processes.
- methodologies from other industries, such as lean manufacturing practices. Front-line teams used lean principles and tools to identify and eliminate waste and to optimize processes, such as the admission process, to achieve better value for
patients. (See www.ihi.org/IHI/Results/WhitePapers/GoingLeaninHealthCare.htm for more information.)

- **best practices** identified in the IHI’s 100,000 Lives and 5 Million Lives campaigns (www.ihi.org/IHI/Programs/Campaign), the American Nurses Credentialing Center’s Magnet Recognition Program (www.nursecredentialing.org/Magnet.aspx), the Center for Health Design (www.healthdesign.org), and other sources.

- **successful changes implemented at other TCAB hospitals.** Peer-to-peer collaborations at TCAB meetings and during site visits were a source of new ideas and reflected the IHI precept that participants should “share senselessly and steal shamelessly” from each other.

The Model for Improvement,4,10 which includes the PDSA cycle, was the improvement methodology that guided the TCAB work of staff nurses and other frontline team members. They generated ideas for change, tested them, measured outcomes, made adaptations if necessary, retested the modified changes, and then implemented successful changes throughout their units. Later, participating teams helped spread successful changes to other patient care units. A more detailed description of these steps for spreading TCAB appears in The TCAB Journey at the Seton Family of Hospitals.

### TABLE 1. Summary of Results of the RWJF–IHI TCAB Initiative

<table>
<thead>
<tr>
<th>OUTCOME MEASURE</th>
<th>BENCHMARK (PUBLISHED EVIDENCE)</th>
<th>DESIRED PERFORMANCE FOR TCAB UNITS</th>
<th>UNITS THAT ACHIEVED THE DESIGN TARGET AMONG THOSE TESTING*</th>
<th>OVERALL RESULTS†</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAFE AND RELIABLE CARE</td>
<td>No. of falls with moderate or greater injury per 1,000 patient days</td>
<td>0.913</td>
<td>0.1</td>
<td>6 of 10 units</td>
</tr>
<tr>
<td></td>
<td>No. of codes per month</td>
<td>No benchmark available</td>
<td>0</td>
<td>8 of 10 units</td>
</tr>
<tr>
<td>VITALITY AND TEAMWORK</td>
<td>Voluntary nurse turnover per year</td>
<td>8%–14%2,3</td>
<td>5% or less</td>
<td>13 of 13 units</td>
</tr>
<tr>
<td>PATIENT-CENTERED CARE</td>
<td>Patient satisfaction (willingness to recommend hospital)</td>
<td>66% surveyed marked top choice (4-point scale)15</td>
<td>95% surveyed mark top choice (5-point scale)</td>
<td>1 of 10 units</td>
</tr>
<tr>
<td></td>
<td>No. of readmissions within 30 days of discharge per month</td>
<td>14%–19%21</td>
<td>5% or less</td>
<td>4 of 10 units</td>
</tr>
<tr>
<td>VALUE-ADDED CARE PROCESSES</td>
<td>Percentage of nurses’ time spent in direct patient care</td>
<td>30%18</td>
<td>70%</td>
<td>1 of 10 units</td>
</tr>
</tbody>
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*For 6 or more consecutive months
†From RAND-UCLA evaluation
Being able to generate, test, and implement successful changes engaged and empowered nurses and staff and led not only to better patient outcomes, but also to a cultural shift and substantially increased staff vitality. The TCAB how-to guide, *Engaging Front-Line Staff in Innovation and Quality Improvement*, details ways to get nurses and other front-line staff involved and enthused about improvement and innovation.11

**RESULTS ON PILOT UNITS**

This section describes results that were achieved by the 10 TCAB hospitals by the end of phase 3 in April 2008. As a group, TCAB teams in the 10 pilot hospitals (13 TCAB units) tested and implemented changes addressing all five TCAB themes. However, teams chose the changes to test and implement, so the number of pilot units that reported data for specific goals varies. Table 1 summarizes results for the four original TCAB design themes.

High-leverage changes (those most likely to result in improved outcomes) are listed for each of the five themes in the TCAB framework. The graphs for each of the themes (figures 2 through 7) represent three types of outcome data:

- the **median or average** performance of all pilot units that tested and implemented changes to improve outcomes in that area
- the performance of the TCAB pilot unit that achieved the **best results** for that goal
- the **most improved** performance of the TCAB pilot unit for that goal

An evaluation team, which was funded by an RWJF grant and included staff from the University of California–Los Angeles (UCLA) and the RAND Corporation, also collected and analyzed both quantitative and qualitative data. Three other articles in this supplement to *AJN* discuss results of their evaluation. “Overall Effect of TCAB on Initial Participating Hospitals” summarizes findings. “Lessons from Nursing Leaders on Implementing TCAB” examines the roles and experiences of chief nursing officers and nurse unit managers. “Participation of Unit Nurses” looks at the ability of nursing units to implement the TCAB processes.

**Safe and reliable care.** The vision for this TCAB theme, as stated in the conceptual framework, is “Care for moderately sick patients who are hospitalized is safe, reliable, effective, and equitable.” Care teams in medical–surgical units that succeed in this domain can respond immediately to a change in a patient’s condition. They have designed and implemented reliable processes to prevent medication errors, injuries from falls, pressure ulcers, and harm from other adverse events.

**High-leverage changes:**

- Create early detection and response systems to respond quickly to changes in a patient’s clinical condition. Examples include rapid response teams and a program called Condition H,12 in which family members can call for help if they feel the patient needs immediate attention.
- Prevent harm to patients from high-hazard drug errors.
- Prevent patient injuries from falls.
- Prevent hospital-acquired pressure ulcers.
- Develop hospice and palliative care programs.

**Results.** One outcome measure monitored was the number of falls associated with moderate or greater injury per 1,000 patient days. Lancaster and colleagues reported results of 0.9 falls with moderate or higher...
injury per 1,000 patient days. The TCAB goal was 0.1 fall resulting in moderate or greater injury per 1,000 patient days. Ten pilot sites undertook initiatives to reduce patient injuries from falls, and six of them achieved the TCAB goal for six consecutive months or longer. On average, falls decreased 52% between 2005 and 2007. Figure 2 shows the median number of falls per 10,000 patient days that resulted in moderate or greater injury, the number of fall-related injuries on the TCAB unit that achieved the best results, and the experience on the unit with the most improvement in reducing patient injury from falls.

The TCAB pilot units also measured the number of codes per month. No published benchmark was available from the literature, and the TCAB goal was zero. Eight of the 10 pilot sites had no codes for six consecutive months or longer. The average number of codes decreased 33% between 2005 and 2007. Figure 3 shows average performance on all units and the performance of the pilot unit that achieved the best results.

Vitality and teamwork. The vision for the TCAB theme of vitality and teamwork is “Within a joyful and supportive environment that nurtures professional formation and career development, effective care teams continually strive for excellence.” This theme emphasizes the importance of, enthusiasm for, and engagement of the front-line team in transforming medical–surgical units. Semiannual surveys of team development and staff satisfaction helped highlight specific areas that needed improvement to achieve this goal.

High-leverage changes:
• Build competencies of front-line staff for leading innovation and process improvement.
• Develop midlevel managers and clinical leaders to lead transformation.
• Implement a framework for nursing practice based on the “forces of magnetism”—features that the American Nurses Credentialing Center identified as characteristic of organizations that are best able to recruit and retain nurses.14
• Optimize communications and teamwork among clinicians and staff.

Results. The outcome measure for team vitality was voluntary nurse turnover. Published evidence shows that annual voluntary nurse turnover ranges from 8% to 14%.2,3 The desired turnover rate on the TCAB pilot units was 5% or less. The pilot units generally maintained that goal throughout the four years of the project. The median nurse turnover decreased from 4.22% in 2003 to 2.56% by the end of 2005. Although it remained within the target of 5% or less per year, turnover across all units increased to 2.78% in 2006 and 4.17% in 2007 (see Figure 4).

Patient-centered care. The vision for this TCAB theme, as worded in the conceptual framework, is “Truly patient-centered care on medical and surgical units honors the whole person and family, respects individual values and choices, and ensures continuity of care. Patients will say, ‘They give me exactly the help I want (and need) exactly when I want (and need) it.’” The TCAB teams focused on patient-centered care in a variety of ways: by empowering patients with information and education; by arranging for quiet time, pet therapy, and music therapy to enhance emotional and spiritual support; by respecting patient preferences by inviting their input on goals, diet, and meal times; by ensuring physical comfort through improved pain management; and by addressing patient needs with heightened attention to medication and care schedules.

High-leverage changes:
• Create patient-centered and family-centered healing environments.
• Include patients and family members on all quality improvement teams.
Optimize transitions to home or other facilities.
• Involve patients and family members in multidisciplinary rounds and change-of-shift reports to customize care to patients’ values, preferences, and expressed needs and to engage them in shared decision making.

Results. Assessment of patient satisfaction was based on their willingness to recommend the facility to friends and family. In a survey conducted by the Agency for Healthcare Research and Quality, 66% of patients selected the highest possible score (on a four-point scale), indicating that they would definitely be willing to recommend the hospital. The TCAB goal was set higher, at 95% of patients definitely willing to recommend the hospital. (The survey tool used in the TCAB evaluation had a five-point scale.) Only one of 10 pilot sites achieved the 95% target. On average, 61% of patients on TCAB units who completed patient satisfaction surveys in 2005 selected the highest choice on the five-point scale, as did 63.1% in 2006 and 62.3% in 2007 (see Figure 5).

Another measure of patient-centered care was readmission rates within 30 days of discharge. Published evidence from the Medicare database indicates that the average 30-day readmission rate is approximately 20%. The goal for TCAB units was 5% or less, and four of 10 pilot sites reached this goal. The average rate of readmissions within 30 days decreased 29% between 2006 and 2007. In a particular month, the range of readmission rates among all pilot units was 0% to 23.4%. Figure 6 shows the median 30-day readmission rate and outcomes on the TCAB units that had the best results and made the most progress over time.

Value-added care processes. The vision for the TCAB theme of value-added care processes is “All care processes are free of waste and promote continuous flow.” The goal is to reduce the amount of time that nurses on medical–surgical units spend on activities that have little value for the patient. Some TCAB teams have found that moving patient care materials closer to the bedside reduces non–value-added time. Other changes that proved successful in TCAB tests included creating clinical pathways, using admission and discharge checklists and plans, moving activities such as multidisciplinary rounds to the bedside, and decreasing redundant documentation.

High-leverage changes:
• Create rooms that are acuity adaptable.17
• Optimize the physical environment for patients, clinicians, and staff.
• Eliminate waste and improve work flow in the admission process, medication administration, handoffs, routine care, and discharge process.

Results. The outcome measure for evaluation of value-added care processes was the amount of time that nurses spent providing direct patient care. According to published evidence, medical–surgical nurses spend between 20% and 30% of their time caring for patients; the rest of the time nurses are engaged in other activities, such as documentation, finding supplies and other members of the care team, and care coordination. The TCAB goal of 70% of time spent on direct patient care was met by only one of 10 pilot units measuring this outcome. Nevertheless, most nurses on the TCAB pilot units spent twice as much time on direct patient care after TCAB was initiated. Nurses’ time providing direct patient care averaged 47% in 2005, 48.6% in 2006, and 49.6%
in 2007. Quantitative results for this measure are shown in Figure 7. The unit that achieved the best results also made the most progress over time.

Transformational leadership. The TCAB design team added this fifth theme during phase 3, after recognizing that the success of TCAB ultimately depends upon the commitment of leaders at all levels of the organization. The vision for this TCAB theme is “Successful changes on the TCAB units will be adapted and spread to all medical and surgical units.” Transformational leadership—which relies on management practices that foster innovation and empower front-line staff—is essential for ensuring that successful innovations are sustained and replicated in other units.

High-leverage changes10:
• Establish, oversee, and communicate system-level aims for TCAB.
• Align system measures, strategies, projects, and a leadership learning system.
• Direct leadership attention to system-level improvement.
• Get the right team “on the bus.”
• Make the chief financial officer a quality champion.
• Engage physicians.
• Build improvement capability at all levels of the organization.

Results. No quantitative data are available, in part because this design target was added late in the TCAB pilot. For more about the impact of TCAB on the nursing leadership within the participating hospitals, see “Lessons from Nursing Leaders on Implementing TCAB.”

SPREADING TCAB
Organizational leaders have to adopt effective strategies to accelerate the spread of innovative ideas and successful changes from a pilot unit to other sites within a hospital or health care system. The leaders of the hospitals that participated in phase 3 of TCAB pledged the necessary resources for supporting and sustaining TCAB-related innovations. This helped to ensure that the innovations would be permanently incorporated into the organization’s way of doing work on medical–surgical units. Many hospital leaders agreed to spread successful TCAB practices throughout their systems.

A how-to guide on spreading TCAB, Spreading Innovations to Improve Care on Medical and Surgical Units,20 can be found on the IHI Web site.

This supplement to AJN has several articles on spreading TCAB. Claudia Q. Perez and colleagues explain how one hospital system spread TCAB from the initial pilot unit to other facilities in “Spreading TCAB Across Network Hospitals.” Other articles by spread teams in this hospital system are “Reducing Falls Among Outpatients” by Whitney M. Zant and “Improving Mammography Screening” by Janice L. Benzel and colleagues.

Several schools of nursing affiliated with the hospitals participating in the TCAB initiative are integrating TCAB components into their curricula. Deborah Struth tells how one facility did this in “TCAB in the Curriculum.”

WHAT TCAB PARTICIPANTS HAVE SAID
Success stories, anecdotes, and testimonials provide qualitative data for evaluating the effect of TCAB on the leaders, managers, and staff at participating hospitals. The quotes that follow are from TCAB participants at a meeting in April 2008, at the end of phase 3.
• “What started in a pilot has now turned into a way of life for us.”—Kathy Edwards, MSN, RN, Kaiser Permanente Roseville Medical Center, California
• “The communication situation has improved by initiating a direct dialogue between nurses and physicians. Timely communication of subtle changes
Commitment of the Entire Organization
Two CEOs reflect on TCAB as a hospital-wide endeavor.

The top leaders at hospitals involved in the Transforming Care at the Bedside (TCAB) initiative have nothing but praise for it. In the words of Charles J. Barnett, president and CEO of the Seton Family of Hospitals in Austin, Texas, one of the three initial participants in TCAB, “It has been a remarkable experience.”

Thomas M. Priselac, president and CEO of Cedars-Sinai Medical Center in Los Angeles and chairman of the American Hospital Association, said, “TCAB has been one of our most successful organizational initiatives. At its essence, TCAB appeals to the interest of everyone who works in hospitals to take care of patients both more effectively and more efficiently. It is a way to advance an organization’s vision around patient satisfaction and employee satisfaction.”

Barnett noted that it’s not difficult to ask nurses to engage in activities that have the potential for improving the care they deliver. “The response I’ve gotten from nurses is ‘Well, of course! That’s what we’re here to do: to care for our patients and to continue to find ways to improve care,’” he said.

Barnett added, “From my perspective as CEO, one of the ways to improve patient care is to have the best nurses providing the best nursing care.” But, he acknowledged, “It’s not just staff nurses. You need excellent nursing leadership. You need a medical staff supportive of excellence in nursing and willing to work with nurses as colleagues. You need an administration committed to supporting nurses and other clinical professionals. And you need a board willing to state publicly that excellence in nursing is one of the organization’s most important strategic objectives.”

Priselac agreed. “Leadership matters at all levels. At the executive level, there first needs to be agreement on the organization’s goals for quality, safety, patient satisfaction, and financial results. Those in executive roles—the chief executive officer, chief operating officer, chief nursing officer, and chief medical officer—need to see TCAB as a viable strategy to achieve the organization’s objectives. But I firmly believe that it’s the middle-level managers who hold the key to success, because they sit at the intersection of the institution and its goals and the folks who are doing the work. Finally, both physicians and nurses who do the work on a day-to-day basis must view TCAB as an important driver of success for their organization,” he said.

To illustrate the importance of leadership on the unit level, Priselac observed, “TCAB has been spread throughout all units of my hospital—and we’re a large organization, almost 1,000 beds. Many units were excited about getting involved in TCAB. Where there was trepidation, the staff weren’t clear that this was a new way of operating, as opposed to a project of the month. Once they understood that this was a way we want to conduct our operations on an ongoing basis, that TCAB was not just a ‘flavor of the month,’ their concerns went away.”—Laurie Lewis, freelance medical writer, New York City

HOW TCAB TRANSFORMS THE HOSPITAL ENVIRONMENT
The hospital teams that participated in the initial phases of TCAB demonstrated substantive improvements in the care delivered on their pilot units. Improvements included fewer codes and patient injuries from falls, lower readmission rates, reduced nursing...
turnover, and a doubling of the amount of time nurses spent in direct patient care. An important achievement of TCAB that cannot be captured numerically is the activation of the previously untapped talents of the front-line staff.

The TCAB initiative is transformative not only because it achieves unprecedented results for patients and family members, but also because it improves the work environment for nurses and other members of the care team. Front-line staff actively involved in TCAB experience a profound shift in their perspectives, with most coming to see themselves as agents of change for the first time. After participating in TCAB, nurses and other front-line care team members realize that they have the ability to catalyze changes that can make a positive difference for patients and staff alike.

Since 2007, the TCAB model has been adopted by approximately 200 hospitals through collaborations led by the American Organization of Nurse Executives, TCAB collaborators in the IHI’s IMPACT network, and the RWJF’s Aligning Forces for Quality initiative. Presentations by IHI faculty and TCAB participants at local, national, and international meetings have introduced TCAB to additional hospitals. Hundreds of hospital teams across the United States and Europe have joined the initial participants in applying the improvement strategies and methodologies used in TCAB for engaging front-line staff in deciding on and implementing changes to improve patient outcomes. Through TCAB, a movement has begun to transform the care delivered on medical–surgical units to better serve patients and to transform the work environment to support professional nursing practice and collaborative teamwork at the bedside. ▼

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REFERENCES


