“The future system we all envision — safe, reliable, evidence-based, efficient, smooth — is better for just about everyone than the status quo. It’s no longer acceptable to excuse ourselves from not solving defects by saying it’s not possible — it is possible.”

Donald Berwick, MD, MPP, President and CEO
Institute for Healthcare Improvement
In unprecedented numbers, health care professionals are saying “Status Quo’t” and adopting innovative new approaches to delivering care.

As a result, something truly exhilarating is happening: standards, expectations, and spirits among caregivers and patients are higher than they’ve ever been.

That’s why health care will never be the same again.

The Institute for Healthcare Improvement is proud to be a leader in the movement to improve care. We are privileged to work with thousands of spirited and industrious professionals and organizations to make dramatic and lasting progress.

Nowhere has that progress been more clear and more uplifting than in IHI’s 100,000 Lives Campaign, an unprecedented effort to reduce preventable hospital deaths. The Campaign energized and inspired organizations and individuals by demonstrating that better care and better outcomes are truly within our grasp.

But the Campaign was just one of many signs that real and lasting change has come to health care. Throughout the health care system, a new sense of optimism prevails. This report shows why. Organizations everywhere are achieving extraordinary results by redesigning systems of care. They are setting and reaching new standards of excellence.

These examples, and many more like them, demonstrate that the momentum of change is quickening and the community of improvers is growing. We hope these stories inspire more efforts to improve and lasting commitments to maintain the “Status Quo’t.”
Reducing mortality is the ultimate health care improvement goal. IHI’s 100,000 Lives Campaign, launched in December 2004, has been an unprecedented initiative to engage hospitals in meeting this goal by ensuring the widespread implementation of specific techniques proven to increase the safety and effectiveness of care. Thousands of hospitals have reached new thresholds of safety, and a new standard of care has been established as a result. More patients are recovering faster, going home sooner, and returning to daily life healthier than ever before. It's hard to say who's happier about this trend: the patients or the health care professionals who care for them.

Missouri Baptist Medical Center (IMPACT member)
where the mortality rate dropped from 2.40% in 1998 to 1.95% in 2005

Reducing hospital mortality requires the right combination of big picture thinking and attention to small details, says John Krettek, MD, PhD, Vice President of Medical Affairs and Chief Medical Officer at Missouri Baptist Medical Center in St. Louis, MO.

"First," he says, "it is vitally important that from the board level to the front-line staff, everyone must view reducing mortality as his or her job."

But commitment is just the beginning. Saving lives requires a relentless focus on optimizing systems and processes on every front. At Missouri Baptist, careful and continuous monitoring of the six Campaign interventions along with other clinical initiatives provides a wealth of data that help staff at all levels prioritize improvement work. "Through IHI we have tools that allow us to continually enhance our effectiveness," says Krettek.

Krettek says that every death, every Rapid Response Team call, every Code Blue, provides important feedback. "We analyze the impact of systems, processes, or performance. This is educational, not punitive," he says. "The idea is to identify improvement opportunities that are not yet recognized."

Krettek, who for 20 years served as Chief of Neurosurgery, says that, for clinicians used to treating one patient at a time, it is especially gratifying to see the global impact of improvement work. "Preventing mortality is the ultimate way to help our patients."

Wheaton Franciscan Healthcare - St. Joseph (IMPACT member)
where the mortality rate dropped from 2.88% in 2000 to 1.72% in 2005

Barbara Rognes, RN, BSN, Director of Quality at Wheaton Franciscan Healthcare - St. Joseph in Milwaukee, WI, feels good about the hospital’s declining mortality rates. But, she says, "The numbers don't tell the whole story."

They don't, for instance, show the depth and breadth of the culture change that has led to a widely-shared spirit of innovation and excellence, an essential foundation for change. "There are things you just can't measure," she says. "Like how staff have learned to be much clearer and critical thinkers and good communicators. How their confidence has grown. How they are continually learning and teaching each other about how to do even better."

More specifically, Rognes says the low mortality rate can be attributed in part to the hospital’s significant emphasis on several interventions that IHI promotes, including tight glucose control for all patients; the use of a Rapid Response System to detect early signs of trouble; and the consistent use of the steps in IHI’s Ventilator Bundle to prevent ventilator-associated pneumonia.

"We understand that we may never achieve perfection," she says, "but we also know that we can always improve. That attitude is a huge part of our success."

St. Peter Community Hospital
where the mortality rate decreased from 2.6% in 2004 to 1.2% in 2006

"The beauty of the 100,000 Lives Campaign interventions," says Ben Chaska, MD, MBA, CPE, "is how adaptable they are to different settings. Chaska serves as Medical Director and Patient Safety Officer at St. Peter Community Hospital in St. Peter, MN. Located about an hour from the Twin Cities, St. Peter is a 17-bed critical access hospital that has successfully implemented five of the six Campaign interventions that were delineated at a Campaign Mentor Hospital. (Since they have no ventilator patients, that particular intervention does not apply.)"

The hospital might be described as small but mighty. Chaska says there was early and unanimous agreement to implement the Campaign interventions. "We were aggressive about quality," he says, "After I did some presentations about IHI’s Campaign, physicians didn’t just support the initiative, they demanded we do it."

That attitude provides the hospital and undoubtedly explains their outstanding results. Says Chaska, "We reduced surgical site infections by 50%. We increased medication reconciliation from 72% to between 95% and 100%. We decreased transfusions to a higher level of care by 28%."

Chaska says the results are a great source of pride for the staff. "This stuff is powerful, and has an impact on mortality and morbidity. It cost us nothing, and the benefits are huge, especially for our patients.”

"I not now when? If not here, where?" We take those words to heart. Where else should this work be done other than where we work? Why should we wait for anyone to tell us to do this? We take care of our friends, neighbors and families. Why wouldn't we want them to have the very best care?"

Ben Chaska, MD, MBA, CPE, Medical Director and Patient Safety Officer; St. Peter Community Hospital, St. Peter, MN
Rod Street and his wife Annie bridged a traditional divide between unit nurses and ICU nurses. "The ICU nurse gets a better understanding of what the patient goes through," Street says. "They understand what it’s like to be in the ICU. Good nurses will become even better nurses. Before, they would never come into the ICU. It just wasn’t their territory. Now, those barriers have been broken down."

Lisa Leach, LPN, an ICU nurse who serves on the hospital’s Rapid Response Team, says that the team has freed up her time. "Providing comprehensive information and education is key to addressing concerns, along with data showing the positive impact of Rapid Response Teams," Leach says.

Garretson is Manager of the ICU and Step-Down Units, and helped implement Rapid Response Teams. "If we said today we were going to get rid of the Rapid Response Team, we’d probably have a mutiny on our hands," she says. "Those concerns disappeared long ago, says Scime. "Once we got it up and running, the concept sold itself." Implemented in April 2005, the Rapid Response Team in Scime’s hospital receives an average of about 10 calls each month.

Sara Criger, President of Fairview Ridges Hospital and Clinics in Burnsville, MN, says that the use of Rapid Response Teams in her hospital has changed the culture in a way that wasn’t anticipated. "We have recognized now that, regardless of your role in this organization, you can save a life," she says. "This realization came when data showed that it isn’t just nurses who call the Rapid Response Team. ‘The team has been called by a volunteer, a gift shop employee, a nutritionist. We say here that patient care is everyone’s job. This initiative is where it really rings true.’"

Helen Strike, RN, BScN, MHA, Fairview’s Vice President of Patient Care Services, says that implementation of the Rapid Response Team has been one of the most profound changes the hospital has made. "We believe the Rapid Response Team is the key to a seamless transition from the floor to the ICU, and the effect it has on our patients. We believe the Rapid Response Team is the key to a seamless transition from the floor to the ICU, and the effect it has on our patients. We say here that patient care is everyone’s job. This initiative is where it really rings true.”

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The nurse called the Rapid Response Team. "I don’t know where they came from, but they were there in a flash," Mr. Street says. "They gave me oxygen, which was what I needed. They did a great job.”

When Rod Street, 84, left his volunteer job delivering mail at Littleton Adventist Hospital in suburban Denver, he and his wife were at their wits’ ends. "It’s great fun," he says. "Mr. Street is grateful to be so active. In fact, he’s grateful simply to be alive. "I was just about to be discharged after an emergency replacement surgery," he recalls. "Suddenly I experienced some chest pain."

The nurse called the Rapid Response Team. "I don’t know where they came from, but they were there in a flash," Mr. Street says. "They gave me oxygen, which was what I needed. They did a great job.”

"Code Blue" and doctors and nurses rush to resuscitate a patient who has experienced cardiac arrest. But real doctors and nurses prefer to prevent these scenes. And increasingly they can, through the use of Rapid Response Teams. These teams of critical care experts are available to rush to a patient’s bedside — or wherever they are needed — at the earliest sign of a potential problem to help stabilize the patient before a crisis occurs. Hospitals with Rapid Response Teams typically experience a significant reduction in Code Blue calls, which means less drama, and better outcomes.

Veterans Affairs Western NY Healthcare System where the rate of codes decreased from 23.8 per 1,000 discharges to 8.1 per 1,000 in 17 months.

"I don’t know why everyone isn’t doing this," says Stacey Scime, RN, MSN. Scime is Nurse Manager of the ICU at the VA WNY Healthcare System in Buffalo, NY, and she’s talking about the hospital’s use of the Rapid Response Team. "Sure, says staff there had the same reactions most hospital staff have to the idea of creating a team of critical care experts that is available at a moment’s notice to consult on a worried patient. “The ICU staff would say to the Team were concerned that they would get pulled away from their own patients too frequently. The floor staff were concerned that the Team would take ownership of their patients.”

Those concerns disappeared long ago, says Scime. "Once we got it up and running, the concept sold itself.” Implemented in April 2005, the Rapid Response Team in Scime’s hospital receives an average of about 10 calls each month.

"Now, says Scime, staff on the units rely on the Team to provide help when they need it. “The team doesn’t take over. They are there to assist the patient and nurse. It’s a great opportunity for everyone to collaborate, and for everyone to learn.”

The bottom line, says Scime, is this: "We are saving lives.”

Fairview Ridges Hospital where Code Blue calls outside the ICU have been reduced by 70%

Sara Criger, President of Fairview Ridges Hospital and Clinics in Burnsville, MN, says that the use of Rapid Response Teams in her hospital has changed the culture in a way that wasn’t anticipated. "We have recognized now that, regardless of your role in this organization, you can save a life," she says. "This realization came when data showed that it isn’t just nurses who call the Rapid Response Team. ‘The team has been called by a volunteer, a gift shop employee, a nutritionist. We say here that patient care is everyone’s job. This initiative is where it really rings true.”

At first, staff at University Hospitals Richmond Medical Center in Cleveland, OH, were a little uneasy at the thought of implementing Rapid Response Teams. They were concerned about issues of turf, perceptions about competence, and increased workloads. In this, they were no different from staff members at hundreds of other hospitals that have introduced this new concept.

But today, says Sharon Gamratson, RN, BSN, things are different. "If we said today we were going to get rid of the Rapid Response Team, we’d probably have a mutiny on our hands,” she says. Gamratson is Manager of the ICU and Step-Down Units, and helped implement Rapid Response Teams at University Hospitals Richmond Medical Center. "We believe the Rapid Response Team is the key to a seamless transition from the floor to the ICU, and the effect it has on our patients. We believe the Rapid Response Team is the key to a seamless transition from the floor to the ICU, and the effect it has on our patients. We say here that patient care is everyone’s job. This initiative is where it really rings true.”

University Hospitals Richmond Medical Center where cardiac arrests outside the ICU have decreased by 60%

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“W"at I like best about Rapid Response Teams is that they foster a collaborative learning environment in which we all work together on interventions that improve outcomes for our patients. Everyone benefits — the nurse who places the call, the other staff on the unit, and most importantly — the patient in crisis. It is so rewarding to see the quick response and the effect it has on our patients.”

Deb Jellinger, RN, Staff Nurse, Fairview Ridges Hospital, Burnsville, MN

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Lisa Leach, LPN, an ICU nurse who serves on the hospital’s Rapid Response Team, says that the team has bridged a traditional divide between unit nurses and ICU nurses. “The ICU nurses get a stronger understanding of what the floor nurses are dealing with, and vice versa.” She says floor nurses even come into the ICU on occasion to check on patients transferred there after a Rapid Response Team call. “Before, they would never come into the ICU. It just wasn’t their territory. Now, those barriers have been broken down.”
**Reducing Hospital-Acquired Infections**

Preventing infections in hospitalized patients can be as simple as washing one’s hands, and as complex as precisely executing a series of procedures before, during, and after surgery. Preventing nosocomial infections — those acquired in the hospital — is a priority goal for hospital-based providers throughout the world. Evidence-based interventions to reduce two common sources of infections — those from surgery and from catheters called central lines — are part of HH’s 100,000 Lives Campaign, and are now in use by thousands of hospitals, resulting in dramatically falling infection rates.

**Annual US Deaths by Cause**

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<th>Number of Deaths</th>
<th>90,000</th>
<th>80,000</th>
<th>70,000</th>
<th>60,000</th>
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<tr>
<td>Healthcare-Associated Infections</td>
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<td>3,300</td>
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<td>2,500</td>
<td>2,100</td>
<td>1,700</td>
<td>1,300</td>
<td>900</td>
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**Tallahassee Memorial Hospital (IMPACT) Campaign**

In 2005, Tallahassee Memorial Hospital (TMH) wanted to reduce surgical site infections, education was essential. “We thought we were doing everything right already,” said Anne White, RN, BSN, CNOR, Nurse Manager, main operating room. “You couldn’t get buy-in until everyone saw that we could do better.”

When the evidence showed that changing some practices would improve outcomes, people got on board. “One of the surgeons said, ‘We want to do the right thing, tell us what to do differently,’” recalls Todd Schneider, BSE, EIT, Performance Improvement Advisor, an engineer by training.

One of the components of ideal perioperative care is using clippers for hair removal, not razors, which can leave nicks that invite infection. This change required a practical approach — eliminating razors from the supply list — along with the guidelines implemented on TMH’s floors. “We told the surgeons they could still use razors if they really wanted, but they would have to bring them in from home and document that they shaved the patient themselves,” says White.

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**Safer Patients Initiative in the UK**

Where compliance with effective hand hygiene standards has dramatically improved

Proper hand hygiene is the single most effective method to reduce hospital-borne infections. With the support of The Health Foundation in London, IHI is leading a nationwide quality and performance improvement program in the United Kingdom called Safer Patients Initiative. Improving hand hygiene in four pilot sites in the National Health Service (NHS) is one of the programs many efforts.

Pat O’Connor is head of risk management and patient safety for NHS Tayside in Scotland. “We used to visit the wards to audit hand hygiene compliance on an annual rotation,” she says. “Everyone knew who we were, so compliance was very high. But IHI taught us that you have to measure improvement over time, and the effort should be owned by the people on the ground. So the senior charge nurses attended national meetings and trained as slime-line champions. Now they have teams on site that can measure and record hand hygiene frequency, quickly, and quietly.”

O’Connor says they also learned what to measure. “You have to measure opportunity. Are they washing before AND after patient contact, as the guidelines say? It’s harder than it seems, so some of the early scores were quite low.” But O’Connor reports that now, all ICUs in the four sites are at about 90% compliance.

**Changing Old Habits Takes Time**

The Central Line Bundle in our ICU has required ‘buy-in’ from all nursing and medical staff in the unit. Patient safety is a top priority for us, and the fact that we’ve been able to significantly reduce central line infections is a direct reflection of our commitment to our patients.”

Kathy Peterson, RN, MSN, Nurse Manager, Beth Israel Medical Center, Brooklyn, NY

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**IMPACT Campaign**

1. The IMPACT campaign was launched in 2005 at Tallahassee Memorial Hospital.
2. The campaign aimed to reduce surgical site infections by implementing evidence-based interventions.
3. The Central Line Bundle, a group of steps designed to prevent infections in central line patients, was developed.
4. Proper placement of central lines is at the heart of the Central Line Bundle.
5. Strong physician leadership is essential when trying to influence physician practice.
6. The IMPACT campaign included a focus on central line insertion check sheets and central line bundles.
7. Proactive measures, such as check sheets, were used to monitor compliance.
8. The campaign included education and monitoring to improve hand hygiene compliance.

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**Raymond Wagner**

On Christmas Eve 2002, Raymond Wagner III broke his elbow sledding. The surgery went well, but the recovery did not. Infection set in, and Raymond underwent six more surgeries in the next year, spending weeks in the hospital, and months with a pump delivering antibiotics directly into his bloodstream. “I missed a lot of school, baseball, swimming, and football. My family went through a lot of agony.” Today, healthy again, Raymond and his family have become agents for change. Lobbied their Missouri state legislators, they were the catalysts for “Raymond’s Law,” which passed recently. This law requires hospitals to monitor and publicly report certain infection rates.

“We wanted something good to come from all this,” he says. “Wanted something good to come from all this.”
Margaret Thompson, RN, MSN, CPHQ, says the low VAP rate at the Kaiser Bellflower Medical Center is due to the use of the Ventilator Bundle and the careful oversight of the unit’s intensivists. Thompson is the hospital’s Director of Quality Improvement.

“Because of the bundle steps and the intensivists’ management style, our patients have a minimum of ventilator-associated pneumonia,” says Thompson. “You have to stay vigilant. We are always evaluating our outcomes and tinkering with our processes to continue improving.” Tools that support effective ongoing attention to preventing VAP include special forms used during rounds that highlight the steps in the Ventilator Bundle; a critical care training course for new staff members that educates them on the proper procedures for ventilated patients; and visual cues such as a reminder sign that is only visible if the head of the patient’s bed is at the wrong angle.

Staff at United know from experience how important ongoing vigilance is. “We celebrated when one of our ICUs reached a whole year with no cases of VAP,” says Van Roekel. “The next week, we got one.” Many ICU professionals can identify with this experience, which shows just how challenging it is to keep VAP at bay.

J.W. McElhaney was lucky the ambulance riders hung around him for 13 days while he was in the hospital. “They saved my life,” he says now. “Everything was perfect. They made sure I recovered.”

Lee Vanderpool, Vice President, Quality and Performance Improvement, Criminal Operations and Hospital Support, Dominican Hospital, Santa Cruz, CA

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Vanderpool points to daily multidisciplinary rounds as an essential element of the ICU’s success at eliminating VAP, as well as the dedicated commitment of the ICU physician intensivists. He calls the unit’s “wonderful nurses” another key factor in the success of the VAP work. “They have delayed improvements in oral care, control of hyperglycemia, alcohol withdrawal management in critical care patients, and many other areas. Some come in on their days off to help. People are very excited, because they like to do things well.” Preventing VAP is something this staff seems to do particularly well.

A key to preventing ventilator-associated pneumonia is the use of the Ventilator Bundle, which was developed by the Institute for Healthcare Improvement (IHI). The bundle is a set of evidence-based interventions designed to improve patient outcomes in the ICU. It includes seven key steps, each of which is designed to reduce the risk of VAP.

The bundle steps are:

1. Hand hygiene before care.
2. Appropriate antiseptic wipe use.
3. Use of the appropriate ventilator circuit and humidification.
4. Use of the appropriate ventilator circuit and humidification.
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The Ventilator Bundle has been shown to be effective in reducing the incidence of VAP. Studies have shown that hospitals that implement the bundle have a significantly lower rate of VAP than those that do not.

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United Hospital

where the cardiothoracic ICU has been “VAP-less” since January 2005

Ventilator-associated pneumonia may be virtually gone from United Hospital in St. Paul, MN, but it’s ever-present in discussions among staff there. “We talk about it every day during multidisciplinary rounds,” says Marvan Smith, RN, MSN, CCNS, Clinical Nurse Specialist in the ICU. “Our infection control staff have been very resourceful in finding ways to keep it fresh in our minds.”

“You can’t let it go,” agrees Marge Van Roekel, RN, BSN, CCRN, Operations Leader for Critical Care. “You have to stay vigilant. We are always evaluating our outcomes and tinkering with our processes to continue improving.” Tools that support effective ongoing attention to preventing VAP include special forms used during rounds that highlight the steps in the Ventilator Bundle; a critical care training course for new staff members that educates them on the proper procedures for ventilated patients; and visual cues such as a reminder sign that is only visible if the head of the patient’s bed is at the wrong angle.

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Kaiser Permanente Belflower Medical Center

where there has been only one case of VAP in two-and-a-half years

Margaret Thompson, RN, MSN, CPHQ, says the low VAP rate at the Kaiser Belflower Medical Center in Belflower, CA, is due to the use of the Ventilator Bundle and the careful oversight of the unit’s intensivists. Thompson is the hospital’s Director of Quality Improvement.

“But it’s not just the ICU’s leaders who are preventing VAP. ‘There is a commitment on every part of the team, the doctors, nurses, respiratory therapists, every member of the team,’” says Thompson. “Everyone takes a great deal of pride in doing the best they can, in delivering care that is effective and safe.”

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Improving Communication and Information Flow

Safe and effective patient care rests on a foundation of reliable information. What medications is the patient on? What symptoms is the nurse observing? What does the doctor think is the cause of the patient's pain? Effective patient care requires timely, accurate, and complete information about patients. However, healthcare organizations have a long history of failing to deliver and update information about patients reliably. More than 30% of medication errors are caused by information failures. This problem causes untold suffering and costs the healthcare system trillions of dollars each year. The good news is that the healthcare system is finally addressing this problem.

At the University of Illinois College of Medicine at Peoria, where the percent of patients with all medications reconciled on admission rose from 47% in 2005 to 99% in 2006, Eric Alper, MD, was Patient Safety Officer at UMass Memorial Medical Center in Worcester, MA, at the time when medication reconciliation first became a major focus. He says that the effort to make sure information about a patient's medications is accurate when it is admitted, transferred, and discharged is not just another project because it changes the fabric of the organization, including processes, roles, and responsibilities. "Medication reconciliation is one of the most challenging operational and cultural shifts that our organization has made. Even though we have not yet perfected it, we know we have significantly improved medication safety for our patients. It is worth the effort."

At OSF Healthcare System in Peoria, IL, SBAR was introduced in 2002 and has spread to all six hospitals, home care, and the OSF medical group. Although there has been no formal measurement, SBAR is credited with helping to decrease adverse events.

"Nurses and doctors tend to have different models of communication about patients," says John Whittington, MD, OSF's Patient Safety Officer and Director of Knowledge Management. "Nurses are more descriptive, doctors use 'lead lines.' " SBAR, he says, highlights the importance of effective communication and helps people speak the same language, clearly and succinctly.

At OSF, nurses receive training in SBAR communication, and anonymous auditors measure how much SBAR is used. Data is submitted to the board quarterly. Not only have adverse events decreased, but Whittington reports that SBAR is useful beyond the clinical areas. "I've seen it used in everything from clinical consults to meetings about information systems. It's a better way to communicate almost everything."

Steven Tremain, MD, Director of System Redesign, Contra Costa Regional Medical Center, Martinez, CA, says health care can learn from aviation. "You need crosschecks, systems of checks and balances. Nothing should happen in hospitals that hasn't been carefully checked and rechecked. For my mother it's too late. For others, it's never too late to save a life."

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"M"
Improving Care for Heart Attack Patients

Proper care for heart attack patients requires two things that don’t always go together: speed and attention to detail. Evidence-based care for patients with an acute myocardial infarction (AMI), or heart attack, involves rapidly opening the blocked artery that caused the AMI, administering several medications at appropriate times, and providing lifestyle counseling. To ensure that patients get everything the guidelines call for, hospitals must create timely and efficient processes that eliminate wasted minutes while also assuring that every patient gets every component of care in the early crisis period, throughout their hospitalization, and after discharge.

Each year, 1.1 million people experience an acute myocardial infarction. One-third die during the acute period.

Ruth Clarkson had spent days cleaning and cooking in preparation for Easter Sunday with her family. It was indeed an Easter she’ll never forget, although she might like to. At 63, the retired retail grocer spent the holiday in the Emergency Department at Columbus Regional Hospital in Columbus, Indiana, suffering from a heart attack. “They said I had a left branch block,” she recalls. “They started in on me right away.” Mrs. Clarkson had two stents placed in her artery, and was discharged after three days to her rural Westport home with a new regimen of medication and a more personal understanding of renewal.

Charleston Area Medical Center (IMPACT member)

where perfect care for AMI patients has increased from 96% to 98.98%

At Charleston Area Medical Center (CAMC) in Charleston, WV, one of the secrets to effective AMI care is tightly linking the entities that care for heart attack patients. “Patients go from the ambulance to the Emergency Department (ED) to the cath lab to the floor,” says Dale Wood, Vice President of System Improvement and Chief Quality Officer. “That continuum of care needs to be very tight.”

Wood says that CAMC’s AMI improvement team, which included input from all of those entities, examined in detail the processes that occur as a patient passes through these areas, and identified opportunities to improve.

“It starts on the front end,” says Wood. “We learned that the ambulance company can send an EKG to the ED before the patient even gets there. Physicians have indicated that they can use this EKG. That really helps the emergency providers get things started faster.” The cath lab is alerted as well, and a special page goes out to cardiologists that distinguishes between an AMI patient and an AMI patient who needs to go to the cath lab. “They respond even faster to the cath lab patients because there is such a short time window.” Wood says the goal is for 100% of these patients to begin their cath procedure within 90 minutes of arriving in the ED. Ultimately the goal will be to shorten that time even further.

Immanuel St. Joseph – Mayo Health System

where deaths from heart attacks decreased from 15.4% in 2002 to 6.4% in 2005

The culture at Immanuel St. Joseph Hospital in Mankato, MN, supports continuous improvement and promotes the use of evidence-based practice. “It begins with leadership,” says Patricia Bielke, RN, MA, CPHQ, Quality Improvement Coordinator. “If the leaders don’t articulate continuous improvement as their primary expectation, then the rest of the organization can’t do it.”

This culture is the foundation supporting improvement in AMI care, and its not focused only on reducing the time it takes for emergency patients to get from the ED to the cath lab. “Some of our focus is on making sure we recognize the patients whose symptoms are atypical, who might already be hospitalized for some other reason,” says Bielke.

Bielke says two nurses from cardiac rehab and the cath lab review and relay daily lab reports listing any of the hospital’s 140 to 150 patients who have elevated troponins or heart muscle proteins, an indication of a possible AMI. “Then they can prompt appropriate care for those patients. This is a piece that didn’t used to happen. A basic principle of high reliability is focusing on your deficits, and this is one we have fixed.”

What we pay attention to, we can do well. What we don’t pay attention to, we can’t. So we try to pay attention to everything.”

East Alabama Medical Center (IMPACT member)

where mortality from heart attacks has decreased from 7.9% in 2004 to 4.5% in 2006

The dramatic part of heart attack care is getting the patient from the Emergency Department into the cath lab as quickly as possible. The other elements of good AMI care happen behind the scenes, but they are no less important.

At East Alabama Medical Center in Opelika, AL, all aspects of AMI care receive careful attention, says Laura Bell, MS, RN, CPHQ, Director of Clinical Effectiveness. “AMI care is multifaceted,” she says. “To make improvement toward perfect care, you really have to pay close attention to everything.” That means working to decrease the treatment time, but also to assure that patient gets aspirin and beta blockers soon after diagnosis and again at discharge, other medications at discharge if appropriate, and smoking cessation counseling if needed.

Incentives to provide perfect AMI care are built into the compensation program for front-line staff. “Many departmental goals are related to achieving big clinical initiatives, and employees can get quality bonuses when those goals are met,” says Bell. For AMI care, the goals cross departments and functions. “The bonus for ED and cath lab staff is based in part on timely care and in part on administration of beta blockers and aspirin. That way everyone is focused on perfect care, not just the part that happens in their area.”

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Improve your heart attack care with IMPACT

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For many hospital patients, waiting for care often goes hand-in-hand with receiving care. Patients wait in the Emergency Department, or they wait to get admitted to their care unit. They wait for tests, medications, and information. Then when it’s time to be discharged, they wait for final visits from clinicians, for home care instructions, or sometimes just for a ride home. And while they wait, another patient may be waiting to be admitted to the bed they have occupied. Fortunately, these scenarios are changing, as hospitals learn what really causes bottlenecks, waits, and delays, and how to apply new science to old problems.

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At 63, massage therapist Young Wha Lee has diabetes, hypertension, high cholesterol, and coronary artery disease. Yet, he says, "I feel fine." Part of the credit goes to his primary provider, Alphonse Provalis, PA, Diabetes Educator at Kings County Hospital Center in Brooklyn, New York. Despite a language barrier, Mr. Provalis actively manages Mr. Lee’s care so that his conditions are controlled. "They give me lots of information, so I exercise every day, eat lots of fruits and vegetables," he says, through an interpreter. "I get a good job every three months, and my medications have adjusted according to the test results. I am very happy with my care."  

Young Wha Lee and his wife Jung Ryee Lee

When patients visit their doctor’s office, their needs are usually pretty simple. They want to see their provider easily and for a long enough time to address all their needs. If they have a chronic condition, they want to know their clinicians are on top of their care, providing check-ups and tests on schedule. They want preventive care that keeps them healthy or catches problems early. Fortunately, most providers want the same things. Many innovative practitioners have introduced new models of office practice that improve performance so that patients get exactly the care they want and need, exactly when they want and need it.

Neshobe Family Medicine, Porter Hospital (IMPACT member)

where access to appointments was reduced from 41 days to same day

Change is challenging, even when it’s a change for the better. And even when the change helps patients, they may not like it until they personally experience its benefits.

These are some of the lessons the staff learned at Neshobe Family Medicine in Middlebury, VT, when they instituted advanced access, a system that allows most patients to schedule an appointment the same day they call. With three physicians and 5,600 patients, the practice embraced advanced access because evidence shows that it improves patient and staff satisfaction and increases continuity of care.

"We also moved to two appointment types, 20 and 40 minutes," says Office Manager Ingrid Kaufmann, CPC. "Before, we had 15 minute appointments, 30, 40, 60, and it was really hard for the front office. The schedule was very choppy. Reducing appointment times has made the schedule flow much better." To the staff’s surprise, however, patient satisfaction didn’t increase with the new appointment system. "Satisfaction took a dip when we started advanced access," says Kaufmann. "At first patients weren’t sure if they could trust it. It made people nervous not to book appointments in advance." But slowly, as patients begin to experience the advantages of advanced access, and learned to trust that it would benefit their needs, overall patient satisfaction rose to just under 90%.

Powell Hospital Mountain View Medical Center (IMPACT member)

where a planned care approach in a pilot program has lowered cholesterol and HbA1c levels for diabetes patients

Michael Tracy, MD, practices internal medicine and pediatrics in rural Powell, WY, as a member of the Powell Valley Healthcare medical staff. Deeply committed to practice improvement, Tracy serves as the "pilot guy" for his 11-person physician practice.

When three physicians left the practice at about the same time, the resulting crush of patients trying to get appointments motivated change. "We had a real access problem. I had been paying attention to IHI’s work for a couple of years, and was eager to try some new things like advanced access." So the practice reduced appointment times from 15 to 10, and has moved to advanced access scheduling, modified to accommodate patients who drive as far as 100 miles for an appointment and can’t come the same day they call.

Piloting a registry for diabetes patients — the most common condition in his practice — Tracy is tracking their needs and providing proactive, planned care at a rate higher than his colleagues, resulting in significantly better outcomes. Tracy uses an apt metaphor to describe this type of care. "You can’t rely on memory; you have to plan. It’s like skiing. If you’re looking at your ski tips, you’ll crash. If you look up and start planning a couple of turns ahead, you’ll do much better."

Ideal Health of Brighton

where a new model of outpatient care delivery is taken the office practice to higher levels of performance

L. Gordon Moore, MD, is a one-man crusader, fueled by the success of his one-man practice, Ideal Health of Brighton in Rochester, NY.

After nearly a decade in a large organization, Moore went solo in 2001, seeking to strip the primary care office to its essential elements in order to deliver effective, efficient, and deeply patient-centered care. He has not been disappointed. In 275 square feet, and with a single nurse, Moore keeps his overhead low so he can spend more time with fewer patients.

Now, with interest in his successful solo model growing, Moore, an IHI faculty member, has launched a comprehensive effort to share his lessons and vision with others. "I’ve had such an overwhelming response to my model ... communication with doctors from all over the US who are desperate to get the care back into health care," he says.

"For most patients, the office practice is their connection to the health system. This is especially true for the underserved population in my corner of the world, particularly with chronic illnesses on the rise. We owe it to all of our patients to ensure that our systems are safe, efficient, and effective.”

Ragha Banerjee, MD, MBA, Founder and CEO

Bayou La Batre Rural Health Clinic

Bayou La Batre, AL

percent of Americans Receiving Recommended Care

Overall 55%
Hypertension 65%
Depression 57%
Osteoarthritis 55%
Diabetes 40%
Ulcers 27%
Source: McGlynn et al., NEJM, June 26, 2003
Malawi where quality improvement methods are improving maternal/neonatal care

Malawi's maternal death rate is among the highest in the world. The average woman in Malawi has more than six children.

With funding from The Health Foundation, a London-based charitable group, IHI and several British health organizations have formed The Health Foundation Consortium (THFC) program. The group's goal is to reduce maternal and neonatal morbidity and mortality in three Malawian districts by 30% in three years.

IHI staff member Karen Zeribi, MHS, is based in Malawi, working with nine hospitals to improve maternal and neonatal care by using quality improvement methods. Activities will soon expand to health centers and communities. She will also train Malawian professionals to replace her when her 18-month stint there ends in November 2007.

Zeribi says teams from each facility meet regularly in Learning Sessions with Consortium and THFC faculty, and take new ideas back to their sites to test. Zeribi reports early successes in improving fetal heart rate monitoring (from 49% to 81% in one hospital), creating an isolation policy for post-partum women and newborns, and empowering nurse midwives to initiate protocols for eclampsia while waiting for a clinician to arrive.

Harriet Shezi Paediatric ARV Clinic, Soweto, South Africa

Harriet Shezi Paediatric ARV Clinic at Chris Hani Baragwanath Hospital in Soweto is one of the largest clinics of its kind in South Africa. With guidance from IHI, a dedicated and increasingly systems-focused local staff used the Chronic Care Model and the Model for Improvement to increase treatment rates for patients with HIV. As a result, the number of patients receiving highly active antiretroviral treatment (HAART) increased from 166 in October 2004 to 1,500 in September 2006.

The clinic staff tested and implemented changes to clarify staff roles; improve patient triage; create records and a database supporting disease management; and improve pre-clinic preparation. As the clinic increased in size and worked down the backlog, referral demand for treatment was static, even though many children remained untreated. Lillian Obidike, a former pharmacist at the clinic, led the team to design outreach and case finding opportunities in their own pediatric inpatient wards.

The team identified inpatients who were not being referred to the ARV clinic in the numbers expected. Testing a system that included referral, ward counseling and access to the ARV clinic, the team tripled the average monthly referral rate over a few months and has sustained that level since. Now the team is looking to spread the case finding changes to all other wards within the hospital.

Umkhanyakude District, Kwa Zulu Natal, South Africa

Umkhanyakude District is a remote rural area, lacking in resources but filled with innovative ideas and a desire to improve health care. In partnership with the Center for Rural Health (University of Kwazulu-Natal) and IHI, this District has doubled the number of people initiated on antiretroviral treatment for HIV during each of the last two years. As a result, the District leads the nation in primary care-based HAART, and is well ahead of the national standard rate of annual new HAART initiations. Its goal is more ambitious still: to have all people on treatment who require it by the end of 2007.

A pre-existing loose-knit network of hospitals in the District was galvanized through a Breakthrough Series Collaborative to set aims, identify roadblocks to those aims, and change the health system through testing and reflection. Staff tested and implemented changes that reduced the time from HIV diagnosis to HAART initiation. Changes included bundling of testing services, streamlined referral and adherence training, and provision of care at the local clinic. Without additional physical or human resources, this District greatly increased its ability to identify people in need of treatment while also increasing its capacity to treat those people at a primary care level.

In partnership with local health care leaders and organizations, IHI is able to bring unique contributions to some of the world's most resource-poor nations. Focused currently on expanding AIDS treatment in South Africa and improving maternal and child health in Malawi, IHI shares improvement methodologies with local health care workers who use them to create change, often remarkable change. As much as they learn from IHI, improvement teams in the developing world also offer valuable lessons to wealthier nations about the importance of resourcefulness, innovation, keeping targets and measures simple, using teams to their fullest capacity, and maintaining optimism.
Improving hospital care at the patient’s bedside

Nurses who care for patients in medical/surgical units — where so much hospital care is delivered — play a central role in ensuring the quality of hospital care. They are the most highly trained professionals regularly at patients’ bedside, and their vigilance is an important defense against medical errors. But when they are overburdened with non-clinical demands, patient care suffers and disillusioned nurses leave their jobs. One effort to change this is called Transforming Care at the Bedside (TCAB), which IH launched in partnership with the Robert Wood Johnson Foundation. This ambitious initiative to redesign medical surgical care is improving both care and staff satisfaction, which go hand in hand.

It is estimated that 35% to 40% of unexpected hospital deaths occur on medical/surgical units.

University of Texas MD Anderson Cancer Center (IMPACT member)
where the "no patient falls" record on a post-surgery unit is 143 days

When patients fall in the hospital, it does more than add insult to injury. Often it adds injury. In fact, 10% of fatal falls among older adults occur in the hospital. As part of its participation in the TCAB initiative, the MD Anderson Cancer Center at the University of Texas in Houston decided to focus on preventing falls. “We looked at the characteristics of patients who fall,” says Beverly Nelson, MS, RN, CNAA, Director of Nursing Practice Programs. Data provided insights into some common situations that were leading to falls. “We discovered that many people who had had a particular kind of GI surgery were falling,” says Nelson. “Because these patients can develop diarrhea after surgery, we found that putting a bedside commode nearby reduced falls.”

They also instituted hourly safety checks on that unit, in which a nurse checks on the patients and offers assistance with toileting or any other activity that requires patients to be mobile. Nelson says that safety checks are now part of the institutional policy for all patients. “Falls don’t correlate as much with age as people might think,” she says. “Sometimes younger patients think they have more energy or strength than they do. That’s why we need to be vigilant about preventing falls for all patients.”

The University of Kansas Hospital (IMPACT member)
where quiet is a priority and patients get more rest

Hospitals are busy places, and sometimes they are also noisy places. Far noisier, in fact, than one might guess. Research shows that the noise level in a typical hospital room can reach 113 decibels, about the same as a chainsaw. This is incompatible with patients who need rest as well as medical care.

On the 28-bed med/surg Unit 43 in The University of Kansas Hospital in Kansas City, KS, nurses decided to protect some quiet time for patients. “We had heard about this idea at an IHI conference, and we thought it was a great idea,” says Stacy Morast, RN, Nurse Manager of Unit 43. “Noise is one of patients’ most common complaints.”

“We started small, with one patient and one nurse. The patient loved it,” says Morast. In order to spread it to the whole unit, they had to enlist everyone — colleagues from admitting to physical therapy, dietary, lab, and other ancillary services, and even doctors making rounds — to agree to stay off the unit during the designated hour and let the patients rest. With input from all departments, they chose an hour in the early afternoon.

“It really gives the patients time off,” says Morast. “They can close the door, turn off the lights, and they won’t be interrupted. They love it, and now other units in the hospital are trying it.”

ThedaCare (IMPACT member)
where the average number of times per shift that a nurse leaves a patient’s bedside to obtain supplies decreased from three to one

One of the goals of improved bedside care is providing patients with more direct care from their doctors and nurses. When nurses are engaged in activities such as searching for supplies, they have less time to use the advanced nursing skills that benefit their patients.

At ThedaCare’s Appleton Medical Center in Appleton, WI, nurses can devote more time to patient care because of a streamlined replenishment system managed by inventory staff that dramatically reduces the time nurses spend gathering supplies. And by working in care teams with physicians and pharmacists, they are able to use their skills to do the things they are best suited for: determining a care plan, organizing resources to carry out that plan, closely monitoring the patient’s progress, and communicating with the family.

“Nurses have more time to think about the progression of care and the big picture,” says Jamie Dunham, MS, BSN, Business Unit Manager for Medical Services. “They collaborate more closely with the physician and pharmacist, so everyone is on the same page and things happen more quickly for the patient.” To keep everyone literally on the same page, Dunham says they are developing a single care plan, a document on which all caregivers will collaborate and that will serve as a decision making guide for the entire caregiving team.

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Julie Moretz

In the pilot group of patients who used the visual aid, the percent reporting they were “very confident”... Anders recalls. Realizing they needed better tools to help patients with these and other communication issues, Anders and others created a patient handout with images of a thermometer and happy and frowning faces to help patients understand their goals.

Scott Anders, MD, is Chief Medical Officer at CareSouth Carolina in Bennettsville, SC, a federal Health Resources and Services Administration (HRSA) health center serving a poor, underserved population. When HRSA data revealed that he was not doing as well as he thought helping his patients control their high blood pressure, he sought to understand why.

As health care systems begin to engage patients as partners rather than simply recipients of care, new paradigms are being tested. At the University of Pittsburgh Medical Center (UPMC) Shadyside campus in Pittsburgh, PA, part of that new paradigm is a program called Condition H (for Help) in which family members can call for immediate help if they feel the patient is not receiving adequate medical attention.

Modeling on the Rapid Response Team, a group of doctors available to rush to a patient’s bedside whenever a clinician feels the patient’s condition is deteriorating, Condition H gives patients and families access to a similar team that will come to the patients’ room and assess the situation. “When families are unsure of how care is being given, managed, or planned, or if something just doesn’t seem right and they feel they aren’t getting any solutions, they can call a Condition H,” says Beth Kuzminsky, RN, MSN, Center for Quality Improvement and Innovation.

Since July 2005 when Condition H was implemented, UPMC Shadyside has received 45 Condition H calls. “Usually the root cause is confusion about the care plan or lack in communication,” says Kuzminsky. Each call is carefully reviewed and so far Kuzminsky says that the majority of calls have been appropriate. UPMC is planning to spread Condition H throughout its health care system.

Medical College of Georgia Health System

For patients with chronic conditions, regular visits with their health care providers are important. But those visits are only a small part of their lives. The rest of the time, managing their care is up to them. Giving patients the tools and support to do that well is an important part of being patient-centered.

When conditions start to worsen or we’re not sure about their care, they may call,” says M. Patricia Sodomka, FACHE, the CEO of the Medical College of Georgia Health System in Augusta, GA. The organization is a national model for patient- and family-centered care.

“If you’re truly patient-centered, you’re meeting the needs of patients and their families in all settings,” Sodomka says. “When I was in the hospital with my son, Daniel, who was 14 years old, I was there every day to be his advocate and take care of him the best I could.”

“Patient-centered care is woven into the fabric of the organization,” Sodomka says. “You can almost smell the change in the way we do things.” For example, inpatient rooms have been redesigned and placed closer together to make it easier for family and friends to visit at the same time. And all patient rooms have a dedicated refrigerator for youth who are receiving chemotherapy.

“Becoming truly patient- and family-centered changes everything you do, from strategic planning to your philosophy of care, to how you design your building,” says Sodomka. “The only way to do it is by having experienced patient advisors in your organization. You can’t get to patient-centeredness without them.”

Anders and others created a patient handout with images of a thermometer and happy and frowning faces to help patients understand their goals.

UPMC Shadyside (IMPACT member)

UPMC Shadyside (IMPACT member)

where family members can summon a Rapid Response Team for immediate help

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T o the casual observer, it might seem that health care has always been patient-centered. Isn’t it all about the patient? But the truth is that in many ways the health care system serves its own needs more than the needs of those it serves. Now, a movement to change that is taking hold, and health care organizations and providers are working with patients and families as partners in care. Whether it is greater access to information, or greater access to loved ones in the hospital, patients and families are increasingly more than just recipients of care.

The core concepts of patient- and family-centered care are:

- dignity
- respect
- participation
- collaboration
- information sharing

Making Care More Patient- and Family-Centered

“Getting patients and families more involved in their care challenges the traditional hierarchy and provokes questions about control. But if we define success as doing what’s right for the patient, then all our policies and practices should reflect that philosophy. Staf members almost always find that working in partnership with families improves everyone’s care experience.”

Glenn F. Billman, MD, Medical Director of Patient Safety, Children’s Hospitals and Clinics of Minnesota, Minneapolis, MN

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Glenn F. Billman, MD, Medical Director of Patient Safety, Children’s Hospitals and Clinics of Minnesota, Minneapolis, MN
There are many “aha moments” in medical school, one in particular has shaped Jon Huntington’s career plans. “As a student you assume that all you learn in the textbooks is what really is being done in practice,” he says. “It can be disillusioning when you realize that’s not always the case.” With a combined MD PhD degree from Dartmouth Medical School, Huntington had planned to pursue translational research and run his own lab some day. But through the IHI Health Professions Education Collaborative (HPEC), he found that his true passion lies in the science of improvement. “There is a lot of enthusiasm and expertise in the clinical improvement community and I hope to focus some of these resources on undergraduate medical education.”

When health care organizations work to integrate principles of quality improvement — continuous improvement, multidisciplinary teamwork, lean thinking — into their culture, they must launch a significant education and training effort. That’s because for most practicing health professionals, it is new knowledge. Through the IHI Health Professions Education Collaborative (HPEC), academic leaders from four disciplines — medicine, nursing, pharmacy and health administration — are working together to integrate the competencies of quality improvement into their curricula, so that tomorrow’s health professionals will begin their work lives with the skills required by today’s demands.

University of Minnesota
where learners train together in interprofessional teams

Along with learning the skills of their profession, learners at University of Minnesota’s health professional programs are learning how to work with one another. In the Transitional Care Unit (TCU) at nearby Walker Methodist Hospital, a care team that includes a geriatrician, a nurse, and a pharmacist teaches students in each discipline what true inter-professional team practice is all about.

“Team practice is the wave of the future,” says Marilyn Speedie, PhD, Dean of the College of Pharmacy at University of Minnesota. “It is one of the things that is going to help us really improve care. But it’s not easy to do. We used to deliver care in parallel, but to work together as a functioning team, we don’t have very many examples of that.” This program is designed to change that.

Speedie says that studies of care on the TCU indicate the team approach is improving care, reducing patient’s length of stay, and saving money. “The average length of stay for patients with team care is 20.4 days versus 27.0 days for other patients,” she says. “That’s a difference in cost of about $12,000 versus $14,300.”

A training program of this nature requires an investment, both from the academic health center and the hospital. “You have to make a conscious effort to move the quality of practice ahead,” says Speedie.

Clarion
a student-initiated case competition to promote an interdisciplinary approach to improvement

Students at the University of Minnesota Academic Health Center are not just learning to work in inter-professional teams. They are leading the way. Clarion, a student-run, staff- and faculty-advised committee, creates and conducts co-curricular, inter-professional experiences for students based on the Institute of Medicine’s six aims for the health care system. A year-long curriculum includes lessons in leadership, teamwork, communication, analytical reasoning, conflict resolution, and business practices.

The year culminates in a case competition designed by students, in which inter-professional teams — including learners from medicine, nursing, pharmacy and administration — work together to analyze a hypothetical case scenario involving a sentinel event, perform a root cause analysis, and propose system changes using a multidisciplinary approach.

The students meet together during the “free time” to better understand the skills that each member of the team brings to the care of patients, and to design a response to the case study. After five weeks of analysis, teams present their response before an inter-professional panel of judges from the health system.

After running the competition locally for three years, Clarion took the case competition national in 2005.

University of North Carolina at Chapel Hill School of Nursing
where work is underway to include quality and safety competency development in nursing curricula

Because the philosophy and science of continuous improvement have come to health care only in recent years, most health professionals learn about them on the job. “By and large, hospitals that want to educate health professionals about quality, safety, and teamwork have to start from scratch with each new graduate they hire,” says Linda Cronn-Walter, PhD, RN, FAAN, Dean and Professor at the University of North Carolina Chapel Hill School of Nursing. She is involved in a national initiative to change that reality.

As principal investigator in a Robert Wood Johnson-funded project called Quality and Safety Education for Nurses, Cronn-Walter is working with ten expert faculty members from different nursing schools and an advisory board representing various regulatory, accreditation and licensing bodies to design curricula that will teach nurses the skills of quality improvement. “We want them to understand from the very beginning that the continuous improvement of health care will be part of their daily work life,” says Cronn-Walter.

The challenge is to add content to an already full curriculum. “We think we can produce robust materials that will help schools make this paradigm change without a total additive approach to the curriculum,” she says. The long-term goal is to embed these competencies in the clinical teaching, simulation laboratories and classrooms of all nursing schools. But for now, says Cronn-Walter, “We are defining the landscape.”

“...it’s so important to teach learners before they begin their professional careers that one of their obligations is to produce safer, higher-quality systems. If they think they’ll be okay just by being "good enough" or "careful enough" we will lose them along the way because we are all human.”

Leslie Hall, MD, FACP
Director, Office of Clinical Effectiveness
University of Missouri Health Care
Columbia, MO
Toni Martin of Eureka, California, exemplifies the results of “Status Quon’t” thinking. A painter who recently took up sculpting, Ms. Martin has always pushed herself to explore new things. So when she was diagnosed with diabetes four years ago, she met the challenge head on. “At first I was totally baffled,” she recalls. “There was no diabetes in my family.” But she quickly learned to take control through diet and exercise, and now she helps others do the same. Her career in social work and community development made her a natural to become a patient representative in IHI’s New Health Partnerships initiative. She is also involved with the Health Education Alliance, a local patient education group, where she recently produced a DVD about diabetes self-management. “I hope this will help people see that they can take control of their health.” Ms. Martin says the work helps her, too. “I monitor my health carefully. I know I have to be a good example.”

Inviting all to join

IHI’s programs are designed to support individuals and organizations committed to “Status Quon’t.” Our programs include:

- **Web-Based Knowledge Exchange Programs**: Learning sessions and self-paced training courses that teach how to apply proven solutions to get results in specific areas.
- **World-Class Conferences**: Opportunities to connect with like-minded colleagues to share knowledge and generate momentum.
- **Professional Development Programs**: Training programs that transform leaders and build your organization’s capacity to change.
- **Innovation and Learning Communities**: Available through the IMPACT network or on a direct-enroll basis, these are perpetual change laboratories supporting breakthrough improvement at the microsystem level.
- **IMPACT Network**: IHI’s “association for change” where member organizations transform at the system level.

We invite you and your organization to join the movement. For more information, visit www.IHI.org.
The Institute for Healthcare Improvement is a not-for-profit organization leading the improvement of health care throughout the world. Founded in 1991 and based in Cambridge, Massachusetts, IHI is a reliable source of energy, knowledge, and support for a never-ending campaign to improve health care.

Employing a staff of approximately 100 people and maintaining partnerships with over 200 faculty members, IHI offers comprehensive programs that improve the lives of patients, the health of communities, and the joy of the health care workforce.
The future system we all envision — safe, reliable, evidence-based, efficient, smooth — is better for just about everyone than the status quo. It’s no longer acceptable to excuse ourselves from not solving defects by saying it’s not possible — it is possible.

Donald Berwick, MD, MPP, President and CEO
Institute for Healthcare Improvement