ideas in Action

How health care organizations are connecting the dots between concept and positive change

2005 Progress Report
Real, meaningful, lasting change usually springs from a simple idea, a single inspirational source.

A novel approach can spark waves of innovation that ultimately lead to breakthrough results never before imagined.
The Institute for Healthcare Improvement (IHI) helps accelerate change in health care by cultivating promising concepts for improving patient care and turning those ideas into action. Over and over again, we’ve seen innovative ideas lead to practical solutions that have improved patient care.

This Progress Report is a showcase of some of these success stories – dramatic and measurable improvements – that emanate from modest beginnings. The origins of these stories reveal the exponential power of a single concept to drive widespread change. And the stories themselves show the vast potential of bold individuals and organizations willing to take responsibility for building a better health care system. We are honored to present their successes so the world can see how great health care can be.

This Report is organized around the six aims established for the health care system by the Institute of Medicine. These aims are the barometers of our progress.

For each of these areas, we offer exciting examples of brave institutions that find the status quo unacceptable and are committed to a new level of performance. We hope these stories inspire other health care professionals around the world to take up the charge and turn promising ideas into action.
safe care is the right of all patients

IHI launched the Idealized Design of the Medication System initiative in 2000 to develop and test new and safer ways of delivering medication to patients. A year later, more than 50 health care organizations began implementing these innovations in a Breakthrough Series Collaborative called Quantum Leaps in Patient Safety. Now, medication safety is a key area of focus for many of the participants in IHI’s IMPACT network, and the change package and supporting tools are available on IHI’s website for anyone to put into action.

McLeod Regional Health System in Florence, South Carolina, has a long history of working to improve care. As participants in Pursuing Perfection, a Robert Wood Johnson Foundation program for which IHI serves as the National Program Office, McLeod has been working on many fronts.

One very successful improvement effort has resulted in a dramatic reduction in adverse drug events (ADEs).

"Through our participation in an IHI Collaborative on reducing adverse drug events, we learned about the trigger tool, and that helped us look for errors that cause harm," says Marie Segars, McLeod’s Vice President of Patient Services. Although McLeod had been working to reduce ADEs for several years prior to joining the Collaborative, they had reached a plateau and needed new techniques to move the dial further.

"We worked to develop a culture in which everyone was comfortable talking about errors, and sharing their own," says Segars, describing a process that can take years. "And we worked with our information systems folks to use technology to improve the reliability of our medication systems."

McLeod invested in computerized physician order entry, as well as bar code technology at the bedside that allows nurses to scan the patient’s ID bracelet, the medication label, and their own ID badge to verify that they are giving the right medication in the right dose to the right patient at the right time. Automated dispensing of medications on the units also serves as a reliability check and reduces the amount of time it takes to get patients their medication. "We used to average 92 minutes to get a patient the first dose of a new medication," says Segar. "Now we average seven minutes."

time to first medication dose from 92 minutes to 7 minutes
OSF HealthCare, with six hospitals in Illinois and Michigan, has been especially successful at reducing harm from medication errors, reducing ADEs by 50 percent. OSF, an IHI IMPACT member, used the four-level approach recommended by IHI: transform the culture to embrace “systems thinking,” improve medication reconciliation, focus on safe handling of high-risk medications, and streamline dispensing mechanisms to reduce errors.

At OSF St. Joseph’s in Bloomington, IL, mortality rates have dropped significantly due to a number of quality initiatives, and Safety Officer John Whittington, MD, says medication safety measures have played an important role. Whittington credits two specific things: better dispensing mechanisms and a remarkable culture of trust between physicians and pharmacists.

Medication carts have been replaced by an automated medication dispensing system that enters data automatically into the patient’s electronic medical record as it accurately dispenses the medication. Through another automated system, pharmacists double-check all physician-ordered medications, looking particularly for medications or doses that might compromise renal function. If such an order is found, pharmacists are authorized to change the medication or dosage without consulting the physician.

“This is a new kind of trust that reflects a transformed culture,” says Whittington.

At Luther Midelfort-Mayo Health System, a large hospital-based physician group in northwest Wisconsin and an IHI IMPACT member, a nurse’s hunch has led to dramatic reductions in potential ADEs, as well as new standards designed to help hospitals throughout the nation follow suit.

“I knew we needed a way to reconcile patients’ medications when they are admitted, transferred, and discharged,” says Jane Justesen, RN, Director of Medical Telemetry and Intermediate Care at Luther Midelfort. Every patient hand-off was another opportunity for confusion about medications, she says.

Justesen’s hunch was right: A review of patient records revealed that medications not reconciled at transition points may account for as many as 50 percent of all medication errors and up to 20 percent of ADEs. So a quality improvement team used IHI improvement techniques to create an accurate list of all medications a patient is taking and compared that list to the physician’s admission, transfer, and/or discharge orders. The effort has led to a 75% reduction in discrepancies on medication orders.

As the rate of ADEs at Luther Midelfort began to drop, IHI and others paid attention and began to spread the improvement idea to other organizations. It has caught on: The Joint Commission on Accreditation of Healthcare Organizations (JCAHO) plans to add medication reconciliation standards for all hospitals in 2005.
Tallahassee Memorial Hospital in Tallahassee, Florida, is the kind of hospital you want to be in if you suffer a life-threatening event such as a heart attack or stroke. Their track record on saving these patients is very good. But it wasn’t always that way.

“When Sir Brian Jarman calculated mortality rates for all the Pursuing Perfection hospitals, ours was the highest,” recalls Winnie Schmeling, PhD, RN, Vice President of Organizational Improvement and Planning and executive-in-charge of Pursuing Perfection. “So we took on the whole issue of mortality in a very intense way.”

Careful reviews of hospital deaths revealed three areas in need of improvement: communication, rescuing, and planning. Failures in these areas are seldom the cause of death, but often contributors.

Through months of study and testing, Tallahassee staff implemented proven strategies to address each area. “We use a set communication framework — Situation-Background-Assessment-Recommendation (SBAR) — to discuss patients,” says Fain Folsom, RN, BSN, MS, Manager of Performance Measurement. “We have a Medical Emergency Team (or Rapid Response Team) available 24/7 to consult with any provider who is concerned about a patient. And we use multidisciplinary rounds to plan case management strategies. We took a systems approach to reducing mortality, rather than a diagnosis-specific approach, and it has paid off. We’ve had a 23 percent decrease over the past three years.”
At Baptist Memorial Hospital-Memphis in Memphis, Tennessee, an IHI IMPACT member hospital, a new program has helped staff prevent medical crises and reduce patients’ risk of dying.

In order to intervene more consistently with patients before a medical crisis, Baptist-Memphis has deployed a Rapid Response Team (RRT). The team is composed of a critical-care trained nurse, a respiratory therapist, and, when available, an intensivist physician. On call 24 hours a day, the team helps any provider assess patients’ symptoms and initiate interventions to prevent a serious medical problem.

Virtually all critical inpatient events are preceded by warning signs for several hours. RRTs use this window of time to rescue patients before they develop serious medical problems.

The Baptist-Memphis RRT averages about 21 calls per week. Since the introduction of the program, the number of Code Blue calls has dropped by 28 percent. The location of Codes has changed as well: prior to RRTs, 65 percent of Codes were on med/surg units. Today, the majority of Codes are in the ICU, indicating that the highest risk patients are in the proper setting, getting the highest level of care available.

As participants in the Pursuing Perfection initiative, a Robert Wood Johnson Foundation program for which IHI serves as the National Program Office, Hackensack University Medical Center (HUMC) has focused on improving care for patients with acute myocardial infarction (AMI). The effort centered both on treatment of AMI patients and secondary prevention.

Because speed is crucial in the treatment of AMI patients, HUMC worked with its hospital-based paramedics to provide digital EKGs to the emergency department while still en route. Now, when patients arrive, emergency department physicians can initiate the ED’s “thrombopage system,” which simultaneously pages the Cath Lab and interventional cardiologist when an EKG indicates a dangerous weakening of the heart muscle.

The staff also developed a case review process to provide feedback and help increase compliance with evidence-based guidelines for secondary prevention of AMI. The chief physicians of the cardiac ICU and the emergency department lead AMI rounds, during which participants review recent AMI cases. When system-based problems are identified, staff perform a root cause analysis and test changes for improvement.

mortality due to AMI significantly below national average

28% reduction in Code Blue calls
bundling up for better outcomes

Sometimes one plus one actually does equal three. This is the case with “bundles,” groups of interventions that, when reliably implemented together, result in better outcomes than when implemented individually.

Bundles are highly effective in addressing ventilator-associated pneumonia, surgical site infections, and sepsis, as well as other areas, and are central to IHI’s efforts to help health care organizations improve the reliability of care.

At the Veteran’s Administration Boston Healthcare System the rate of surgical site infections and other types of perioperative harm has dropped dramatically in the past year, thanks to implementation of a bundle of perioperative interventions learned in an IHI Collaborative.

By instituting deep vein thrombosis (DVT) prophylaxis steps, beta blockade to prevent cardiac events, timely prophylactic antibiotic administration to prevent surgical site infections, and pre-procedural briefings to foster teamwork and communication, the VA Boston reduced their perioperative harm rate in a pilot population by 50 percent, cut unplanned surgical readmits from 4.5 percent to 0.03 percent, and reduced unplanned returns to the OR from 1.3 percent to 0.03 percent.

“Administering an antibiotic to patients within an hour before the surgical incision sounds simple, but it’s actually pretty complicated,” says Debra Furlong, RN, MS, Clinical Coordinator for Surgical Services. “Patients don’t arrive at the OR from the same place. Some come from the wards, some from the ED, and some from home, and you have to coordinate for all of them. Also, some patients are allergic to penicillin and require an entirely different antibiotic regimen.”

Furlong says monitoring the appropriate use of the interventions is an important ongoing job. “You can never sit back and say we’re done,” she says. “We are always fine-tuning things to see how we can continue to improve.”

50% drop in perioperative harm
mortality from sepsis dropped from 60% to 25%

By implementing a specific bundle of treatment steps, IHI IMPACT member Strong Memorial Hospital in Rochester, New York, part of the University of Rochester Medical Center, has been winning its fight against an evasive and tenacious enemy: sepsis.

In North America, sepsis kills more people in a year than breast cancer, lung cancer, and colon cancer combined. At Strong Memorial, use of the sepsis bundle has begun to make a significant difference. Mortality from sepsis dropped from 60 percent to 25 percent in three months. This is no small feat. Implementing the sepsis bundle requires a great deal of focus and coordination.

For patients with severe sepsis, as many as eight steps must be accomplished within the first six hours of presentation. “Time is tissue,” says Barry Evans, NP, Critical Care Data Coordinator at Strong. “You need to respond rapidly to have good outcomes.”

Sepsis itself is a whole-system problem, and so is its remedy: education and training must be systemwide, says Evans. “Patients are often diagnosed on the wards or the ED, and treatment must begin immediately, before the patient moves to the ICU. Getting this right involves improving patient flow, communication, and clinical response time. It involves a lot of coordination, collaboration, and determination.”

The steps involved in creating the ideal ICU are obvious. But that doesn't mean it's easy, says Lee Vanderpool, Vice President at Dominican Hospital, a 379-bed community hospital that serves Santa Cruz County in California. Part of the 41-hospital Catholic Healthcare West system, Dominican is a member of IHI's IMPACT network.

As a result of its focus on improving critical care processes, Dominican has significantly reduced the average length of stay in the ICU, average ventilator days, and adverse events such as ventilator-associated pneumonia (VAP) and catheter-related bloodstream infections.

“We have used multiple tactics to improve care in the ICU,” says Vanderpool. “We've implemented the ventilator bundle, daily goal sheets, daily multidisciplinary rounds using the goal sheets as checklists, and aggressive insulin control protocols.”

The ventilator bundle calls for the head of the bed to be elevated at 30 degrees, prophylactic care for peptic ulcer disease and deep vein thrombosis, a “sedation vacation,” and a daily screening of respiratory function followed by trials of “spontaneous breathing.” Because of its use of the bundle, Dominican has experienced only one VAP case in 2004 (as of November).
patients as partners

Using an intense brainstorming method known as a “Deep Dive,” pioneered by an innovation company called IDEO, a group of IHI experts took up the challenge of transforming the experiences of patients and staff in medical/surgical units. Leaders of the Robert Wood Johnson Foundation-funded initiative called Transforming Care at the Bedside (TCAB) visited hospitals and spoke directly with patients and staff. Some of the hundreds of ideas that emerged are being tested and developed in 13 TCAB pilot sites.

At the University of Pittsburgh Medical Center (UPMC) – Shadyside, in Pittsburgh, Pennsylvania, the concept of “comfort food” has inspired changes in patients’ diet options that have not only improved patient satisfaction, but have resulted in better nutrition as well.

“As part of our TCAB work, we surveyed patients to describe what a perfect patient experience would be,” says Susan Martin, BSN, MSN, Director of Nursing Support Services. “Many responses focused on improvements in food service.” UPMC Shadyside staff recognized that, in many cases, the value of meeting patients’ food preferences might outweigh whatever small health-related benefits could be gained from a restricted diet during their hospital stay.

The nutrition staff responded by creating a liberalized diet program, loosening restrictions and extending kitchen hours. An evening snack is also offered to all patients, ranging from yogurt to fruit to brownies.

The changes have resulted in a 42 percent increase in the number of patients who rated the service as exceeding or greatly exceeding their expectations; a 42 percent increase in the number of patients who consumed 75 percent or more of the food on their trays; and, ironically, a 10 percent increase in the number of patients selecting appropriately for their prescribed diet.

In addition, nutrition staff monitor the choices patients make and use the information to educate patients during discharge planning. This has generated a significant increase in educational opportunities about nutrition.
Reducing patient falls is clearly a safety improvement, but it is also patient-centered. “There is nothing worse for patients than to restrain them,” says Sandy Sharon, Assistant Administrator for Patient Care Services at Kaiser Foundation Hospital - Roseville, in Sacramento, California. “But that’s what we sometimes had to do to keep patients safe.” Elderly patients are particularly at risk, and a fall in this population can be devastating.

At Kaiser Roseville, a TCAB pilot site, the staff has worked on an array of initiatives to improve patient satisfaction with their hospital experience. One highly successful effort has focused on reducing patient falls by implementing patient safety rounds throughout the hospital.

“We recognized that during changes in nursing shifts, no one was routinely checking on patients,” says Sharon. Now, nursing assistants perform safety rounds every two hours and during the beginning and end of shifts, checking to see that beds are in the low position and escorting patients to the bathroom or elsewhere if needed.

“Before this program, we were running as high as five falls per 1000 patient days,” says Sharon. “The national benchmark is two falls per 1000 days. Now, we are at 0.5. We haven’t had a fall in more than 60 days, and when we get to 90 days, we’re going to have a big celebration.”

As a TCAB pilot site, Seton Northwest Hospital in Austin, Texas, part of the Ascension Health System, has tested a number of changes designed to improve outcomes, patient satisfaction and support the vitality of caregivers. One in particular holds the potential to do all three.

Based on innovative work first developed at Luther Midelfort-Mayo Health System in Eau Claire, Wisconsin, Seton Northwest nurses developed a traffic-light system to declare their availability for additional patient care. At four check-in times during each shift, front-line nurses indicate on a centrally located whiteboard their capacity to care for new admissions. This declaration is not based on available beds, but rather on available care. A green magnet shows they are able to take on new patients; yellow means they are nearing capacity; and red means they cannot safely accept another patient.

“The TCAB floor is a very busy 64-bed unit that gets 15 to 20 admissions a day,” says Mary Viney, Director of Patient Care Services. Previously, the bed placement coordinator assessed each nurse’s workload individually every two hours. “It was a slow, one-on-one process,” says Viney.

Not only is the new process efficient, but displaying the information publicly has created a stronger sense of teamwork among nurses, who pitch in to help when they see a colleague is overloaded. This is certainly good for nurses, but even better for the patients they serve.
Mark Murray, MD, is a hero to anyone who has ever wanted to see a doctor but couldn’t get an appointment for weeks. Murray had the same reaction that most patients have: there must be a better way. So he engineered a concept called open access, in which each day’s schedule is mostly open and fills like a glass from the bottom up. Patients can get appointments on the day they call, and providers try to address all the patients’ needs during each visit to reduce follow-up visits. IHI embraced Murray’s concept, and began to teach it to practices throughout North America and Europe.

If you wish to launch the largest health improvement program in the world, you’d better think big, because Great Britain’s National Health Service (NHS) will be hard to top. In 2000, NHS launched its National Primary Care Collaborative designed to improve access and services in practices throughout the entire nation, with assistance from IHI.

Eighty Primary Care Trusts (PCTs) — regional bodies of the NHS that include dozens of practices — participated in the initial wave of the project. Four years later, more than 2,000 practices have been involved, serving nearly 11 million patients. Success on several fronts has been dramatic, including improved access to primary care, where data show a 70 percent reduction in waiting times for general practitioners (GPs) and a 55 percent reduction in waiting times for nurses. The average waiting time to see either type of practitioner is currently only one day.

Using the access model taught by IHI, practices balance appointment capacity and demand on a daily basis, and are able to offer patients a choice of ways to access appropriate health care at a time they need it. Both patient and staff satisfaction have increased as waiting times have decreased.

The achievements of these practices are impressive, and the techniques they use are being spread to every PCT in the country.
Double-digit growth in demand for CT scans was both good news and bad news for ThedaCare, a Wisconsin-based health organization that owns both Appleton Medical Center in Appleton and Theda Clark Medical Center in Neenah, 10 miles away. “There was usually a two- to three-week wait for outpatient access,” says Stew Garson, Manager of Diagnostic Imaging at ThedaCare.

So ThedaCare, an IHI IMPACT member, put its experience at improving access in primary care to work on improving access to imaging services, including CT scans, MRIs, ultrasounds, and mammograms.

The improvement team included all the stakeholders of the CT department, including ER physicians, nurses, technologists, radiologists, central scheduling, and IT. The team worked toward three primary objectives — opening the schedule, improving patients’ readiness and information flow, and examining and restructuring staff roles and responsibilities.

Today, most patients who need CT scans are seen the same day if desired, and other imaging appointments are generally available within just a few days. In addition, streamlining the process has allowed ThedaCare to increase its capacity for CT scans, MRIs, ultrasounds, and mammograms.

Reduced wait for CT scans from three weeks to same day

Change is never easy, especially for large, multi-site practices where daily needs require full attention. But two large practices proved that the effort to change the status quo is energy well spent.

Using the open access scheduling model they learned in IHI collaboratives, Iowa Health Physicians (IHP), with 55 sites in Iowa and Illinois, and Bellin Medical Group, with 19 locations throughout Northeastern Wisconsin and Michigan’s Upper Peninsula, are among the many medical practices that have dramatically reduced the amount of waiting time for routine appointments.

Moving toward open access is hard work, typically requiring extra time and effort to clear the schedule. “We added extra slots for a while to work down our backlog,” says Mark Barnhill, DO, IHP’s Medical Director. “We also reduced appointment types and evaluated the reasons for return visits.”

Bellin followed a similar strategy, temporarily extending hours, simplifying scheduling templates, redesigning care teams, and implementing alternatives to one-on-one care. “First we had to convince the staff that this was possible,” says Randi Burnham, NP, Bellin’s Team Leader for Clinical Services. “Then, it was a matter of working hard to get there.”

Gradually, but steadily, both groups reduced the time to the third next appointment (a standard measure of access) in their pilot sites to same-day access in the vast majority of practices. Now, Bellin has open access in all its sites, and Iowa is well on its way toward that goal.

Most appointments available same day
Health care organizations are complex systems that employ multiple processes, units, and disciplines to care for patients. Ideally, these disparate parts come together in a smooth and seamless fashion to provide efficient care. But the ideal, it seems, is not necessarily the norm in health care. Other industries have much to teach health care about creating smooth processes and handoffs. IHI has sought to infuse health care with management concepts that are successfully used by companies as diverse as McDonald’s, Toyota, and Disney.

Things used to get so backed up at The Royal Devon and Exeter NHS Foundation Trust, (RD&E) an 850-bed hospital in the United Kingdom, that word would periodically spread throughout the community to stay away. Patients who came anyway would wait for hours and hours in the emergency department (ED), and those who were admitted were often placed in inappropriate settings. Ironically, patients would also wait excessively just to be discharged.

Today, that picture couldn’t be more different, as more than 96 percent of patients seen in the ED are admitted or discharged within four hours. This is thanks to a comprehensive improvement effort launched by The North and East Devon Health and Social Care Community, which runs the hospital. The organization is a participant in Pursuing Perfection, a Robert Wood Johnson Foundation initiative for which IHI serves as the National Program Office.

Efforts to improve patient flow into and out of RD&E centered on each end of the inpatient experience: admissions and discharge. An Access Team was created to triage patients who arrived at the ED but did not require acute care, arranging for appropriate care elsewhere. Discharge planning became a priority, as did the streamlining of support systems such as transport and prescription filling.

Inappropriate admissions are also on the decline. Where it used to be typical to have more than 60 medical outliers (medical patients placed in surgical beds, necessitating the cancellation of elective surgeries) on any given day, now RD&E rarely has any, something they believe no other hospital in England can claim.
With about 25,000 surgical cases per year, St. John’s Regional Health Center in Springfield, Missouri, fully utilized its 22 operating rooms (ORs), often late into the night. But that was the problem: The surgical schedule was often thrown way off by emergencies or other unplanned surgeries, pushing the day’s scheduled cases later and later.

For Christine Dempsey, BSN, CNOR, Vice President of Perioperative Services at St. John’s, the solution came with crystal clarity when she attended an IHI Collaborative session on improving patient flow. “I heard some really fascinating and exciting ideas, with compelling evidence,” she recalls. The answer to St. John’s OR scheduling problems, she learned, was to set aside one OR for unplanned surgeries only.

She offered her skeptical surgeons evidence she had learned in the Flow Collaborative from IHI faculty member Eugene Litvak, PhD. Unscheduled surgeries, said Litvak, are actually more predictable than elective procedures.

Seeing is believing: with a separate OR for unscheduled cases, St. John’s has seen a five percent increase in surgical case volume, a 45 percent decrease in surgeries performed after 3 PM, an all-time low in OR overtime, a 4.6 percent increase in revenue, and improved staff and patient satisfaction.

When a hospital emergency department routinely goes on diversion — temporarily closing due to lack of capacity — it is usually an indication of systemwide problems. This was the case at Camden Clark Memorial Hospital (CCMH) in Parkersburg, West Virginia, which used to divert patients about 20 times per month.

The irony, of course, is that diverting patients requires its own set of steps. “We were spending a lot of time and effort turning patients away,” says Jessica Owens, BSN, RN, CEN, Clinical Specialist and Trauma Coordinator at CCMH.

With 30 beds and about 48,000 visits per year, the flow of patients into the ED is steady, says Owens. But it was the flow out of the ED, she says, that was the real problem. As participants in an IHI Collaborative on improving patient flow, CCMH staff learned to analyze patterns and get to the root cause.

“We were diverting patients not because we couldn’t treat them in the ED, but because we couldn’t move them out of the ED quickly enough,” says Owens.

The team launched several efforts to improve flow, including better models for determining bed needs, faster bed turnaround times, and a high-census plan that opens additional patient areas and reschedules surgeries if necessary. Now, it takes a rare event to close the CCMH emergency room. In the past year the ED has gone on diversion only once, when a car crashed directly into the emergency room bay doors.
equity means everyone

It is no secret that health care is unevenly available in our society. When IHI founders Paul Batalden, MD, and Donald Berwick, MD, MPP, puzzled over how to spread best practices across health care organizations, they may not have realized how well their idea would help address inequities in care. On a napkin, Batalden sketched a plan that was to come to life as the Breakthrough Series Collaborative, today’s foremost method for achieving rapid cycle change in health care.

Urban Health Center in the South Bronx of New York, a federally funded community health center, serves a predominantly Hispanic population in one of the poorest congressional districts in the country. Asthma is an epidemic in this population, says Sam De Leon, MD, the Center’s Chief Medical Officer.

Serving patients in one large clinic and two satellite clinics, as well as five school clinics, two homeless shelters, and one adult day health center, Urban Health logs about 140,000 visits a year. “We wanted to address the needs of our asthma patients, so we created an asthma program,” says De Leon. Unfortunately, he recalls, not much changed.

“We were motivated, but not educated,” he says. They were ripe for participation in the Bureau of Primary Health Care’s Health Disparities Collaborative, a program supported by IHI. “When we learned the Chronic Care Model through the Collaborative, we were hooked,” he recalls. “It taught us exactly what we needed to take better care of this population.”

Today, Urban Health has close to 4,000 patients in its asthma registry and shares credit for a significant drop in asthma hospitalizations in the surrounding population. Among Urban Health’s asthma patients, the average number of symptom-free days has increased dramatically and the number of patients classified as severe asthmatics is dropping.

175% increase in symptom-free days
Big Sandy Health Care operates four federally funded community health centers in rural eastern Kentucky. Diabetes is the second-most common diagnosis, behind hypertension, among the nearly 15,000 patients the clinics serve.

“We knew we needed to implement evidence-based guidelines for the care of our diabetic patients,” says Pat Willis, Big Sandy’s Director of Patient Services. “And we did.” But they soon discovered that, as Willis says, “having something written on a piece of paper doesn’t necessarily mean it gets done.”

Through participation in the Health Disparities Collaborative, staff learned how to implement guidelines in effective and practical ways. “The Collaborative helped us figure out how to organize our system to support guidelines,” says Willis.

The staff created a computerized patient registry, working from paper records. “We don’t have electronic medical records,” says Willis, which made it hard to effectively manage care for populations. But the registry has changed that. “We can see which patients have and haven’t been in, and we can track data that help us manage their care.”

With the average glucose level at 7.1 (against a target of 7), and more than 80 percent of patients with self-management goals, Willis says staff are newly energized. “When we see such improved outcomes, it just thrills us,” she says.

Bringing improvement concepts and chronic care management techniques to developing countries is important and challenging work. In collaboration with Partners in Health and the Health Ministry of Peru, IHI has sought to reduce the burden of tuberculosis (TB) in Peru while creating models for future efforts in other nations. In March 2002, IHI and its partners launched an improvement project that included Peru’s 41 health centers and hospitals.

Specific goals of this 18-month Collaborative included improving the cure rate of TB by improving case detection; strengthening clinical protocols; providing clinical management of patients with complications such as malnutrition; developing patient supports that address patients’ expressed needs; creating tools for ongoing measurement of TB care; and building care teams around shared principles and values.

But beyond specific goals was a larger one: to plant the seeds of an improvement culture that would take root and grow beyond the project’s boundaries. Success wasn’t measured just in outcomes — one clinic reported a 200 percent increase in the number of patients in treatment during one reporting cycle — but in the demonstration of government investment and leadership, high-level investment from front-line care sites, and the commitment with which participants embarked on the journey of change.
Working with a number of national organizations involved in the education of health professionals, IHI is sponsoring an academic medical center Collaborative to facilitate teaching quality-based competencies to the next generation of doctors and nurses. The work of the Collaborative is based on competencies outlined in a report commissioned in 1999 by Paul Griner, MD, previously a vice president of the AAMC and currently an IHI Fellow, and Paul Batalden, MD, an IHI co-founder and current Board member.

Facilitated by Dr. Griner and Dr. Batalden, the Collaborative began in March 2003 with deans and faculty from six medical schools from across the U.S. Since then, the Collaborative has grown substantially in both size and scope. Sixteen medical schools are currently participating, as are companion schools of nursing and teaching hospital affiliates.

- Case Western Reserve University School of Medicine
- Dartmouth Medical School
- Mayo Medical School
- Michigan State University College of Human Medicine
- Oregon University School of Medicine
- Pennsylvania State University College of Medicine
- University of Chicago School of Medicine
- University of Cincinnati College of Medicine
- University of Connecticut School of Medicine
- University of Louisville School of Medicine
- University of Miami School of Medicine
- University of Minnesota Medical School
- University of Missouri School of Medicine
- University of North Carolina School of Medicine
- University of Tennessee College of Medicine
- Vanderbilt University School of Medicine

The Collaborative has thus broadened its mission to include a focus on student-initiated learning and students as change agents within the academic medical center setting.

As the Collaborative prepares for its third year, its leaders look forward to the challenge of maintaining its mobility, integrating an eclectic group of health professions educators, and broadening its mission to include the development of an infrastructure for inter-professional education.
The momentum for change is growing every day. As evidence, we offer the following statistics on IHI’s programs as of the end of 2004:

- Approximately 4,000 health care leaders from around the world will attend IHI’s National Forum on Quality Improvement in Health Care in December 2004, with another 6,000 expected to join via satellite broadcast.

- 2,800 people joined a single phone call on November 12, 2004, to mark the 5th anniversary of the IOM’s “To Err Is Human” report.

- 35,000 people have subscribed to IHI’s monthly electronic newsletter.

- More than 2 million “visits” were logged on IHI’s website in 2004.

- 175 organizations have joined IHI’s IMPACT network.

- 700 people have graduated from IHI’s Breakthrough Series College.

- People from more than 50 countries on six continents are involved in IHI’s work.

Without question, the quality improvement movement is gaining momentum in health care. And it will not stop as long as we continue to turn simple ideas into widespread action.

We invite you to join in the important work of improving health care. The following pages provide an overview of ways you can get involved with IHI.
IHI is here to help

Quality improvement efforts are continuous and rewarding journeys, which, like the success stories outlined in this report, generally spring from a modest beginning. IHI recognizes that health care organizations are at different stages of progress along this path:

Some are starting their improvement work by seeking new ideas and acquiring fundamental improvement skills.

Others have made a real commitment to change and are taking action to dramatically improve specific areas of care.

Still others have achieved meaningful local successes and are now aiming to achieve whole-system transformation.

Wherever your organization finds itself on its improvement journey, IHI has a program that can help you move to the next level. For more information about any of these programs, visit www.ihi.org or call IHI toll-free at (866) 787-0831.
WEB-BASED RESOURCES

IHI.org
IHI’s online resource, containing all of IHI’s improvement knowledge and tools — available free of charge to anyone, anywhere whose aim is to improve health care.

Continuous Improvement Newsletter
Our free monthly e-newsletter that includes improvement tips, success stories, and updates on IHI’s programs — an excellent way to keep informed.

Web-Based Training Sessions
On-line training programs for learning fundamental skills and important improvement concepts at your convenience.

Web&Action
A series of web-based learning sessions with practical application assignments between sessions.

CONFERENCE CALL PROGRAMS

STAT Calls
“Just-in-time” audio conferences for disseminating breaking knowledge, promising approaches, or breakthrough results.

“Calls to Action” Audio Conference Series
A series of conference calls with topic experts, providing all the benefits of a “real” conference without the travel.

Author in the Room
In partnership with JAMA, a program designed to more rapidly bring clinical evidence into practice by connecting practitioners to authors of JAMA articles.

CONFERENCES

National Forum on Quality Improvement in Health Care
The premier “meeting place” for people committed to the mission of improving health care.

European Forum on Quality Improvement in Health Care
In partnership with the BMJ Publishing Group, an annual meeting for European improvement leaders.

International Summit on Redesigning the Clinical Office Practice
A showcase of innovations and practical solutions for improving the clinical office practice.

International Summit on Redesigning Hospital Care
An in-depth exploration of practical ideas for saving lives, time, and money in the hospital setting.

PROFESSIONAL DEVELOPMENT PROGRAMS

Patient Safety Officer Executive Development Program
An intensive eight-day training to help Patient Safety Officers and others responsible for safety create and lead powerful patient safety programs.

Improvement Advisor Fellowship Professional Development Program
Nine-month training and support program to develop Improvement Advisors who provide improvement expertise and leadership to health care organizations.

Executive Quality Academy
An intensive five-day executive program designed to improve the ability of senior leaders to achieve measured quality improvement at the level of whole systems.

Operations Management in Health Care
A seven-month interactive program to help leaders improve operations by applying management techniques not traditionally used in health care.

Breakthrough Series College
Training in all aspects of the IHI Breakthrough Series methodology, designed to help organizations rapidly spread improvements.

COLLABORATIVE LEARNING OPPORTUNITIES

Breakthrough Series Collaboratives
Collaborative improvement projects where health care organizations work together and with IHI to rapidly deploy changes that produce breakthrough results in a specific clinical or operational area.

Innovation Communities
Groups of organizations working together and with IHI to explore novel solutions for improving care where best practices do not already exist or are not fully developed. Open to IMPACT member organizations only.

THE IMPACT NETWORK
IHI’s results-driven network for change, providing member organizations a framework for addressing leadership issues while making breakthrough change on the frontline.
THE INSTITUTE FOR HEALTHCARE IMPROVEMENT (IHI) is a not-for-profit organization leading the improvement of health care throughout the world. Founded in 1991 and based in Boston, Massachusetts, IHI is a reliable source of energy, knowledge, and support for a never-ending campaign to improve health care.

Employing a staff of more than 75 people and maintaining partnerships with over 200 faculty members, IHI offers comprehensive products and services that improve the lives of patients, the health of communities, and the joy of the health care workforce.
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