

T H E C O U R A G E T O A C T O N

W H A T





THE INSTITUTE FOR HEALTHCARE IMPROVEMENT (IHI) HELPS HEALTH CARE ORGANIZATIONS AROUND THE WORLD TRANSFORM “WHAT IF” THINKING INTO THE REALITY OF BETTER CARE FOR PATIENTS EVERYWHERE. WITH A CONSTANT FOCUS ON INNOVATION, COLLABORATION, AND RESULTS, WE:

- PROVOKE THE INDUSTRY TO THINK BEYOND THE STATUS QUO, ASK “WHAT IF,” AND ENVISION A BETTER SYSTEM
- HARVEST GREAT IDEAS, INNOVATIVE APPROACHES, AND METHODS – FROM WITHIN AND OUTSIDE HEALTH CARE – THAT HAVE THE POTENTIAL TO TRANSFORM PATIENT CARE
- BRING CHANGE-MINDED PEOPLE TOGETHER – BOTH IN PERSON AND ELECTRONICALLY – TO EXCHANGE IDEAS AND KNOWLEDGE, BECAUSE IT IS EXPONENTIALLY EASIER TO IMPROVE TOGETHER THAN ALONE
- LEAD FRONTLINE IMPROVEMENT WORK – BY PROVIDING THE STRUCTURE, METHODS, AND TOOLS FOR DEDICATED IMPROVEMENT TEAMS TO MAKE SUSTAINABLE CHANGES WHERE THEY MATTER MOST
- EMBOLDEN LEADERS TO EMBRACE AS A CORE BUSINESS STRATEGY THE BUILDING OF A SAFE CULTURE FOCUSED ON CONTINUOUS IMPROVEMENT



2 0 0 4 P R O G R E S S R E P O R T

HEALTH CARE IS A HIGHLY COMPLEX SYSTEM WITH MANY BROKEN PARTS. THE GOOD NEWS IS THAT FOR EVERY BROKEN PART IN OUR SYSTEM, THERE ARE REMARKABLE EXAMPLES OF EXCELLENCE – ORGANIZATIONS THAT HAVE OVERCOME ENORMOUS OBSTACLES TO REDESIGN THE WAY PATIENT CARE IS DELIVERED.

THIS PROGRESS REPORT IS A SHOWCASE OF THESE SUCCESS STORIES. IT HIGHLIGHTS ORGANIZATIONS THAT ARE BOLD ENOUGH NOT ONLY TO ASK “WHAT IF,” BUT ALSO TO TAKE ACTION – TO MOVE BEYOND THE STATUS QUO AND 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 EIGHT “WHAT IF” QUESTIONS. THE FIRST SIX ARE BASED ON THE AIMS ESTABLISHED FOR THE HEALTH CARE SYSTEM BY THE INSTITUTE OF MEDICINE. IHI HAS ADDED THE LATTER TWO BECAUSE WE BELIEVE THEY ARE CRITICAL TO SUSTAINING IMPROVEMENT.

- SAFETY**What if patients were as safe in the hospital as they are at home?
- EFFECTIVENESS**What if all care was based on best-known science?
- PATIENT-CENTEREDNESS**What if patient values helped guide all clinical decisions?
- TIMELINESS**What if waiting was not a normal part of getting and giving care?
- EFFICIENCY**What if we never wasted supplies, equipment, time, energy or ideas?
- EQUITY**What if care did not vary in quality because of personal characteristics?
- WORKFORCE VITALITY**What if all health care workers loved their jobs?
- PROFESSIONAL EDUCATION**What if all health care students learned that quality improvement is their responsibility?

FOR EACH OF THESE QUESTIONS, WE OFFER EXCITING EXAMPLES OF BRAVE ORGANIZATIONS THAT ARE TURNING VISIONS INTO REALITY. WE HOPE THESE STORIES WILL GIVE OTHER HEALTH CARE PROFESSIONALS AROUND THE WORLD THE CONFIDENCE AND THE COURAGE TO ACT ON “WHAT IF.”



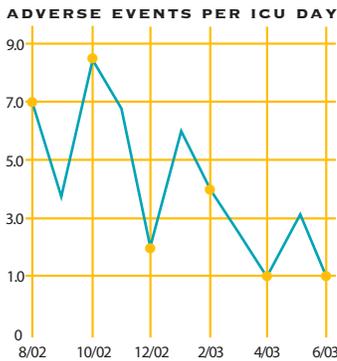
if... patients were as safe in the hospital as they are at home?

PATIENTS ARE SOMETIMES HARMED BY THE VERY PROCESSES THAT ARE DESIGNED TO HELP THEM. THIS HARM MOST OFTEN RESULTS FROM FAULTY SYSTEMS, NOT FAULTY PEOPLE. A CULTURE WHERE IT IS NOT JUST ACCEPTABLE, BUT COMMENDABLE, TO DRAW ATTENTION TO ERRORS IS ESSENTIAL IN WORKING TOWARD A SAFER ENVIRONMENT.

Reducing Adverse Events in the ICU

ST. JOSEPH HOSPITAL

St. Joseph Hospital has found that reducing adverse drug events (ADEs) in the ICU requires the efforts of a multidisciplinary team. Working collaboratively, pharmacists, physicians, nurses, and respiratory therapists in the ICU at the 446-bed hospital in Lexington, Kentucky, a member of Catholic Health Initiatives and IHI's IMPACT network, have reduced the number of adverse events per ICU day from 8.4 to consistently below 3.0.



The key to success is separating avoidable ADEs from those that are unavoidable, explains Heath Jennings, PharmD, BCPS, a clinical pharmacy specialist. "You don't want to think that low ADE numbers mean you have eliminated adverse reactions," says Jennings. "That's impossible. The goal is to implement measures to prevent anticipated and avoidable events while reporting new and avoidable ones accurately. Tracking is the key to prevention."

The team started with a baseline ADE rate derived from chart reviews, and then implemented processes to catch adverse events, track them, identify trends, and prevent them, Jennings explains. "One method of avoiding adverse events is through the use of a daily goal sheet," explains Alan Howard, RN, MSN, a clinical nurse specialist. "The sheet helps the primary care nurse to recognize a potential problem at the bedside and act before an event might occur." Also a report was created to identify medications with a high risk of ADEs and those commonly used as ADE reversal agents.

Simultaneously, pharmacists began attending patient care rounds with physicians in the ICU, says Yuri Villaran, MD, FCCP, a pulmonologist and critical care specialist. "Multidisciplinary patient care rounds increase the likelihood that potential ADEs are identified before they occur and appropriate changes are made to the patient's medication regimen to prevent the event," Villaran says.

Jennings agrees, saying, "Without the multidisciplinary approach and the support of our physicians this process would not have been successful."

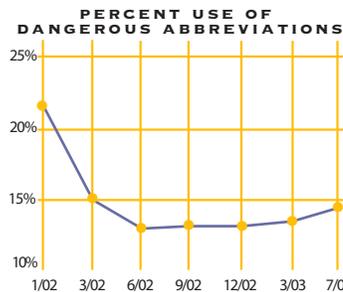
Cutting the Use of Dangerous Abbreviations

SSM HEALTHCARE

Even for health care's first winner of the prestigious Baldrige Award, a seemingly simple change such as reducing the use of dangerous abbreviations (DAs) in prescription orders requires taking small steps and proceeding deliberately. SSM Healthcare in St. Louis, Missouri, began work to reduce the use of DAs in orders in 2002, as part of a broader effort to improve patient safety, and used IHI's Breakthrough Series Collaborative as a model.

"Eliminating dangerous abbreviations is difficult because writing abbreviations is an ingrained professional attribute for those physicians, nurses, and others who use them," says Andrew Kosseff, MD, FACP, SSM's medical director of clinical system improvement. As a result of the initiative, SSM, a system of 20 hospitals in Illinois, Missouri, Oklahoma, and Wisconsin, has cut the usage of four common DAs from 22% in January 2002 to 14% by July 2003.

At first, SSM alerted all physicians, nurses, and physician assistants who write prescriptions that it would soon ask them to stop using these three kinds of shorthand: QD for daily, U for units, trailing zeroes, and to begin using leading zeroes when



writing orders. Even though the trailing and leading zeroes are not technically abbreviations, using them incorrectly can make prescription orders unclear, Kosseff explains.

After being notified about the initiative, an order writer who used a DA would find a sticker attached to the patient chart about the need to eliminate abbreviations. Next, anyone who used orders containing DAs would receive an informative letter requesting that they stop doing so. The hospitals and other health care entities also made posters and computer screensavers about the effort and removed DAs from preprinted orders.

Then the hospitals set a date when prescription orders written incorrectly were no longer filled automatically. Instead, an order writer would be asked for an explanation if an abbreviation was used. Kosseff believes this initiative is helping to cut the frequency and severity of adverse drug events.



MEDICAL ERRORS ARE THE
8TH LEADING CAUSE OF
DEATH IN THE U.S.
EACH YEAR, AT LEAST
7,000 PEOPLE DIE
FROM MEDICATION
ERRORS ALONE.

Reducing Adverse Drug Events

MISSOURI BAPTIST MEDICAL CENTER

The Missouri Baptist Medical Center learned important lessons about patient safety when it began using IHI's Trigger Tool to track adverse drug events (ADEs). Putting those lessons into practice, the 489-bed facility in St. Louis cut the average number of ADEs per 1,000 doses from almost 2.0 in May 2001, when it started using the tool, to less than 0.5 by the summer of 2003.

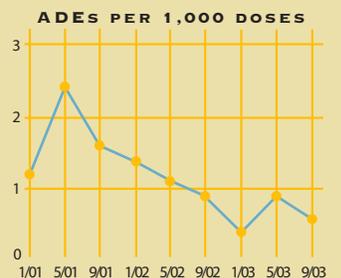
The Trigger Tool is a list of 24 potential problems that can result from using certain medications. When noted in medical charts, these "triggers" alert a reviewer to the possibility that an ADE might have occurred.

Missouri Baptist learned that having a multidisciplinary team that includes a pharmacist, a nurse, and a physician who use the tool when reviewing charts is an effective way to identify and quantify adverse events, says Nancy Kimmel, RPh, a patient safety specialist at the medical center.

The team also found that neither patients nor staff were being educated adequately about the proper administration of insulin, anticoagulants, and narcotics. So the center assigned a group of professionals to work on reducing ADEs involving these high-risk medications. "Each one of these groups manages a different high-risk medication, for which they do patient and staff education, assessment, documentation, and treatment," Kimmel explains. "Now if we see a trigger or an adverse event, the information can be filtered to that group because they know how to correct the process."

Another important lesson came when the medical center automated 14 of the 24 processes involved in the chart review. The information system now alerts the pharmacist when it identifies a potential adverse event.

"All of this information has always been in the chart," says Kimmel. "But now we can see the data and respond so that we're seeing fewer adverse events per 1,000 doses dispensed."





...all care was based on best-known science?

KEEPING UP WITH BEST CLINICAL PRACTICES REQUIRES MORE THAN READING THE LITERATURE AND VOWING TO CHANGE OLD HABITS. EFFECTIVELY CLOSING THE GAP BETWEEN WHAT WE KNOW AND WHAT WE DO REQUIRES EMBEDDING NEW PROCESSES INTO THE SYSTEM SO THAT THE SYSTEM ITSELF SUPPORTS BEST-KNOWN PRACTICES.

Reducing Ventilator-Associated Pneumonia

BAPTIST MEMORIAL HOSPITAL-DESOTO

The ICU staff at Baptist Memorial Hospital-DeSoto in Southaven, Mississippi, used to believe that some patients on mechanical ventilators “just got infections” because they are so sick, says ICU Nurse Manager Lisa Miller, RN. Today, with a rate of ventilator-associated pneumonia (VAP) that has dropped by 46% in the past year, they know better.

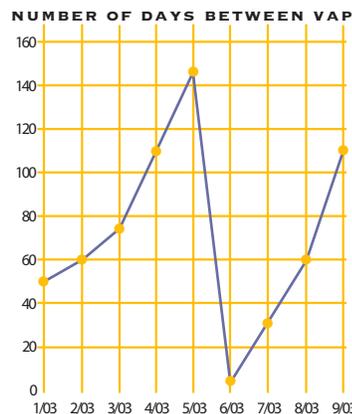
Ventilator-associated pneumonia is the leading cause of morbidity and mortality in the ICU, according to the U.S. Agency for Healthcare Research and Quality. Estimates are that VAP is associated with up to a 30% mortality rate – as high as 50% when the VAP is caused by a more virulent strain of infection. VAP also increases the average length of stay in the hospital 13 days, at an added cost of \$3,000 to \$6,000 per episode.

Baptist-DeSoto, a member of IHI’s IMPACT network, decided to address its VAP rate by implementing the “ventilator bundle” concept developed by IHI.

The ventilator bundle consists of proven techniques for improving outcomes for ventilator patients. It calls for the following, as appropriate: the head of patients’ beds elevated to 30 degrees; prophylactic care for peptic ulcer disease; prophylactic care for deep vein thrombosis; a daily “sedation vacation” to bring patients to alertness; and a daily assessment by a respiratory therapist, often including trials of “spontaneous breathing” to speed weaning from the ventilator. While most hospitals likely follow some of these steps some of the time, few if any ICUs complete each one every time.

Baptist-DeSoto’s ICU staff added the bundle steps to their daily round sheet, along with a mouth care protocol they developed. “Aspiration is the number one cause of VAP,” says Miller. “Regular mouth cleanings have gone a long way to decrease the risk of aspiration and the colonization of bacteria in the mouth.” Now, the steps have become routine. “Everyone knows that every day they will be asked about all the bundle elements during rounds,” says Miller.

“These are things that every physician and nurse knows need to be done; the problem is that we weren’t doing them consistently,” says Manoj Jain, MD, chair of Baptist-DeSoto’s infection control committee. “Having a system that forces you to do the steps 100% of the time, this is what’s new. It’s not rocket science, but it makes a huge difference.”



Reducing Surgical Site Infections

MERCY HEALTH CENTER

Advances in surgical techniques save and improve lives every day. Unfortunately, there are an estimated 500,000 surgical site infections (SSI) per year in the U.S., with more than 20,000 resulting in death.

Teams that participated in the National Surgical Infection Prevention (SIP) Collaborative, through the sponsorship of the Centers for Medicare & Medicaid Services (CMS), achieved impressive results in reducing infection. SIP brought together hospital teams and quality improvement organizations (QIOs) from across the U.S. who learned the Breakthrough Series methodology from IHI.

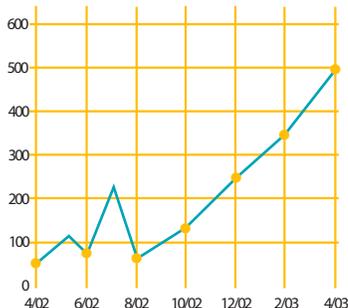
One of the best-performing teams, Mercy Health Center in Oklahoma City, reduced post-surgery infections by 78% in one year by redesigning systems of care, says Dr. Mark Johnson, chief medical officer at Mercy. While Mercy’s SSI rates were low at the start of the project, Mercy was committed to reducing infections to the lowest achievable rate.

Mercy’s “Ounce of Prevention” team included representatives from multiple disciplines. Using the IHI rapid cycle model to test and implement changes, the team oversaw implementation of standardized processes such as improving the use of prophylactic antibiotics prior to surgery, maintaining normal body temperature for patients during surgery, and clipping rather than shaving the surgical site to reduce the risk of small nicks in the skin.

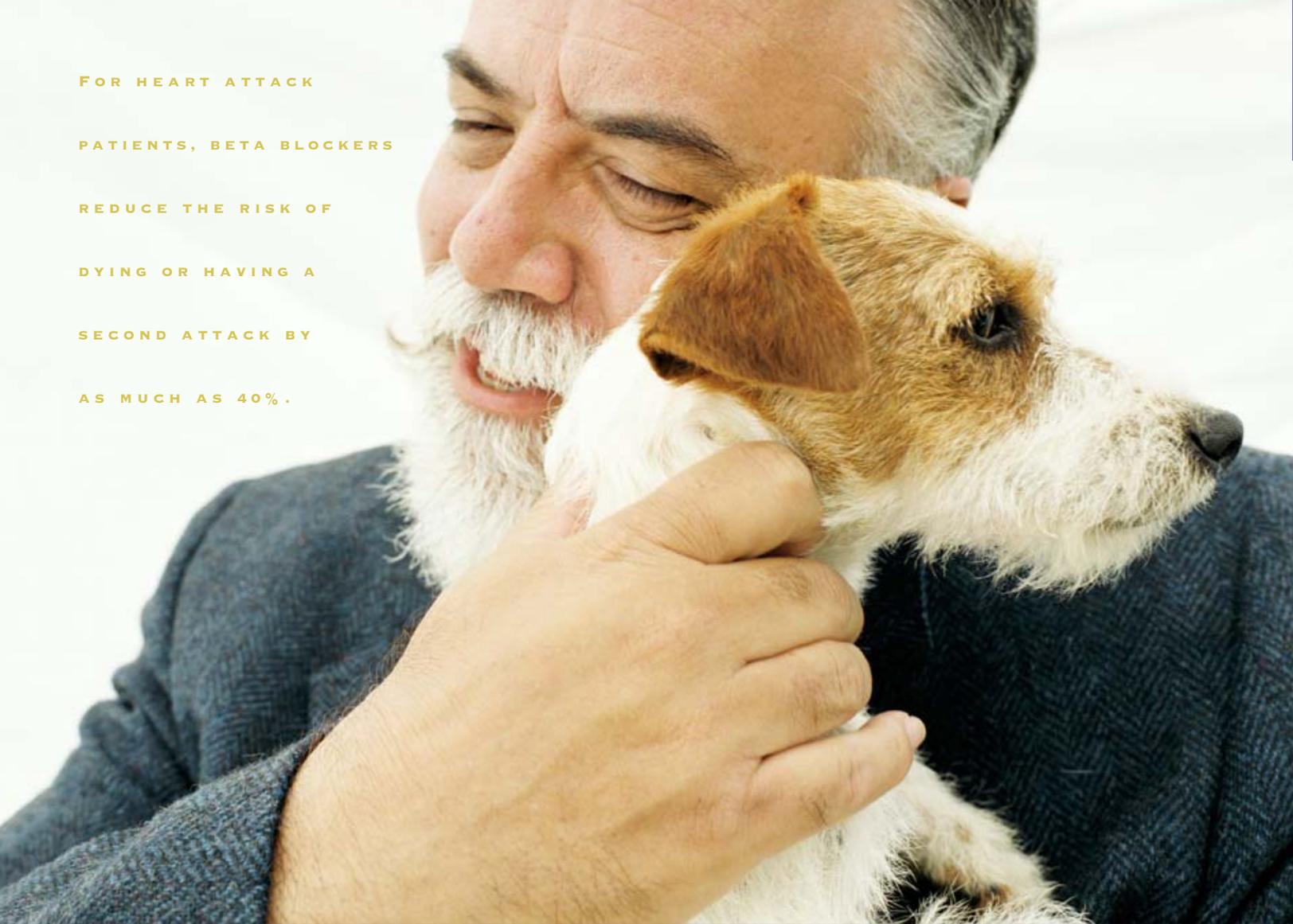
“There has to be a team effort to put these measures in place,” says Ronda Pasley-Shaw, RN, Mercy’s infection control practitioner and day-to-day project leader. “We had to educate everyone about using clippers. We had to work out the right timing and selection of each antibiotic, and identify who is responsible for hanging and monitoring it. Everyone needed to agree that keeping the OR warmer is best for the patients, even though it gets quite warm for the rest of the surgical team.”

These efforts are clearly paying off. “We have had nearly 500 surgical cases in the pilot population without an SSI,” says Johnson.

NUMBER OF SURGICAL CASES BETWEEN SSI



FOR HEART ATTACK
PATIENTS, BETA BLOCKERS
REDUCE THE RISK OF
DYING OR HAVING A
SECOND ATTACK BY
AS MUCH AS 40%.



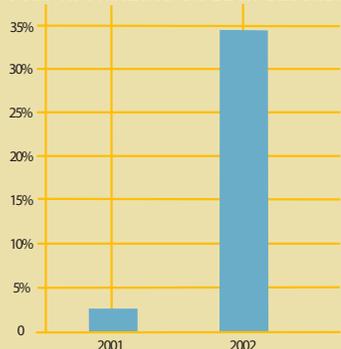
Reducing Mortality for Patients with Coronary Heart Disease

NATIONAL HEALTH SERVICE

Engineering a four-fold reduction in mortality among your target population is pretty rewarding work, says Meera Kulkarni, Director of Centre Support for the National Primary Care Development Team (NPDT), part of the National Health Service (NHS) in Great Britain.

NPDT has achieved this feat by using IHI improvement methods to help primary care clinicians improve the systems of care for patients with coronary heart disease. As part of the National Primary Care Collaborative, patients who have had heart attacks receive beta blockers in their follow-up treatment. Studies show that this practice cuts patients' risk of dying or having a second heart attack by as much as 40%.

PERCENT OF PRACTICES WITH >90% POST MI PATIENTS ON BETA BLOCKERS



The Collaborative work bears this out: practices involved in the program saw a four-fold reduction in mortality compared to the norm throughout Great Britain. "That's about 800 lives saved in the primary care organizations involved in the Collaborative," says Kulkarni.

The nationwide Primary Care Collaborative involves redesigning systems and processes to assure the consistent delivery of good quality care for patients with CHD. Prescribing of aspirin, beta blockers, and statins was measured monthly by primary care clinicians to improve the care provided.

"The Collaborative now works with 3,500 practices, helping them use the IHI improvement model to develop their registers, implement effective call and recall systems, use computer templates and set up practice nurse-led clinics," says Kulkarni. Practices learn the PDSA rapid cycle improvement method so they can make and test changes.

The National Primary Care Collaborative is the largest health care improvement program in the world and has led to significant improvement across the system.

Now NPDT is working to spread the improvement methods throughout their 11 regional NPDT Centers involving every single Primary Care Organization in England. "If we can replicate this across the whole of England, we will save 6,000 lives a year," says Kulkarni.



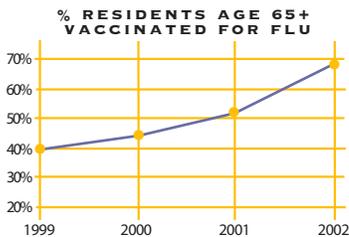
if... patient values helped guide all clinical decisions?

PATIENT-CENTERED CARE RESPECTS PATIENTS' PERSONAL PREFERENCES, CULTURAL TRADITIONS, FAMILY DYNAMICS, AND LIFESTYLE CHOICES. AN EMPHASIS ON SHARED DECISION MAKING BRINGS PATIENTS MORE FULLY INTO PARTNERSHIP WITH THEIR PROVIDERS, GIVING PATIENTS BOTH RESPONSIBILITY FOR THEIR CARE AND EMPOWERMENT TO HELP GUIDE DECISIONS.

Increasing Access to Flu Vaccines

JÖNKÖPING COUNTY COUNCIL

If patients won't come to the flu vaccine, why not take the flu vaccine to the patients? And why not make the vaccine free? These are just two of the ideas that the Jönköping County Council in Sweden implemented to improve the rate at which its older citizens received inoculation against the flu.



Responsible for the health care of Jönköping's 330,000 residents, the County Council is one of the international teams that has joined the Pursuing Perfection initiative, a program of the Robert Wood Johnson Foundation for which IHI serves as the National Program Office.

Among other things, Jönköping has worked to improve the rate at which residents age 65 and older get influenza vaccines. "In 1999, we gave flu vaccines to only 38% of our older citizens," says Goran Henriks, who helps lead the influenza vaccine work group.

The work group knew it had to do two main jobs: make it easier for providers to know who needs a flu vaccine and administer it, and make the benefits and ease of getting a vaccine clear to the public.

Through surveys of both citizens and providers, work group members gathered information about real and perceived barriers to getting more patients vaccinated. To help physicians and nurses track

information about patients' vaccines, the County created a registry to serve as an information database and a reminder system. All practices received training in the use of this system. In addition, rules were changed so that home care nurses, employed by each of the 13 municipalities in Jönköping, could deliver vaccines directly, without a physician's supervision.

A full-scale public relations campaign was then launched, aimed at Jönköping's over-65 population. The County Council sent informational mailings, wrote articles for local publications, held free information sessions and conferences, gave interviews to local media, and even produced and ran television commercials urging older residents to get their flu shots.

The multifaceted approach worked. Today, close to 70% of the target population receives influenza vaccinations.

Open Visiting in the ICU

GEISINGER MEDICAL CENTER

Policies regarding visiting with hospitalized patients have grown more open in recent years, giving families and friends more flexibility about when and for how long they can visit with a hospitalized loved one.

Except in intensive care units. Most ICUs continue to restrict visiting to certain hours of the day and for certain limited amounts of time.

When IHI issued a challenge – allow families to visit in the ICU 24/7 during a two-month trial period – one of the hospitals that took up the challenge was Geisinger Medical Center in Danville, Pennsylvania, a member of IHI's IMPACT network.

"We had implemented open visiting in the ICU a few years ago, but it didn't go very well," says Lani Kishbaugh, clinical nurse educator in Geisinger's 16-bed shock and trauma ICU, and leader of the ICU visiting hours initiative at Geisinger. "Some families would camp out in the ICU," she says. "The doctors felt they couldn't get their work done in there."

This time, however, things are going much better. "We created an extensive communication program, educating both families and staff about what open visiting really means," says Kishbaugh.

Making and communicating guidelines for families is one of the reasons that the experiment is going better the second time around, says Kishbaugh. "We tell our visitors that we are testing open visiting, that we are trying to make it work to everyone's satisfaction." Staff also created written materials for families about the experiment.

"We aren't eliminating the rules about visiting," says Kishbaugh. "We remind visitors that patients who are recovering need rest and uninterrupted sleep. We limit visitors to immediate family. We limit the number of visitors. We ask families to step out during certain times. We have expectations about how families can use the open hours, and we are working on communicating those expectations effectively."

Surveys conducted at the beginning and end of the two-month trial show that families and staff are very happy with open visiting, a policy that Geisinger intends to continue supporting.

GIVING YOUNG PATIENTS

WITH DIABETES CHOICES

ABOUT THERAPIES GIVES

THEM MORE CONTROL

AND INDEPENDENCE.



Reducing Dependence on Providers for Insulin Adjustments

CINCINNATI CHILDREN'S HOSPITAL MEDICAL CENTER

Children with diabetes, and especially their parents, must learn to be relentlessly vigilant about planning and watching their diet and administering regular insulin shots. It is a lot for a child to endure, and a lot for a parent to manage.

Cincinnati Children's Hospital Medical Center (CCHMC) has begun offering patients and their families a new insulin protocol that allows for greater flexibility and requires less stringent management. CCHMC is a participant in the Pursuing Perfection program, an initiative of the Robert Wood Johnson Foundation for which IHI is the National Program Office.

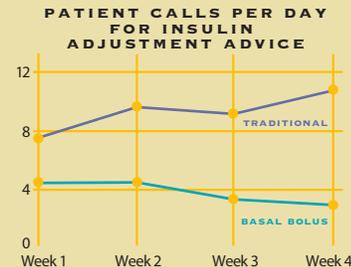
"The standard type of insulin protocol calls for patients to inject a combination of short-acting and long-lasting insulin, carefully timed to peak at mealtime," says David Repaske, PhD, MD, who, along with colleagues Susan Allen, RN, MSN, and Lisa Campbell, led the effort to change the insulin protocol.

There are two main problems with this therapy, says Repaske. "First, sometimes the peaks are so broad that you have a lot of insulin at the wrong times, and need to eat when you wouldn't normally want to. Second, you have to choose the amount of insulin to take well before you even know what or where your next meal might be. You are then obligated to eat an amount to match the insulin you took."

Now, new, longer lasting insulins are available, and through a protocol called basal bolus, patients can take one 24-hour dose, and inject a very rapid acting booster just before eating. "You buy a lot of flexibility with this method," says Repaske. "Kids can sleep in on Saturday mornings."

CCHMC's Pursuing Perfection team debated which protocol to offer, says Repaske. "We began to wonder why we couldn't offer both. We called other academic medical pediatric centers around the country, and didn't find anyone who was giving a choice. We decided to try it."

The patients have split about evenly between the two choices, says Repaske. An unanticipated benefit, he says, is that patients on the basal bolus therapy have gained a measure of independence because they are less in need of daily guidance about dosage. "Dosing traditional insulin is an art," says Repaske, which is why most patients on conventional therapy call in daily to discuss their doses. "We're getting far fewer phone calls from parents of the second group," says Repaske.





if... waiting was not a normal part of getting and giving care?

WAITING HAS BEEN PART OF HEALTH CARE FOR AS LONG AS THERE HAVE BEEN WAITING ROOMS. PATIENTS AREN'T THE ONLY ONES WHO WAIT; PROVIDERS WAIT TOO. THESE WAITS AND DELAYS HAVE BEEN BUILT INTO THE SYSTEM, AND IT TAKES CONCERTED EFFORTS TO ELIMINATE THEM. BUT THOSE EFFORTS ARE PAYING OFF IN DRAMATICALLY IMPROVED ACCESS AND REDUCED DELAYS, BENEFITING BOTH THOSE WHO RECEIVE AND THOSE WHO GIVE CARE.

Improving Patient Access

EVERETT CLINIC

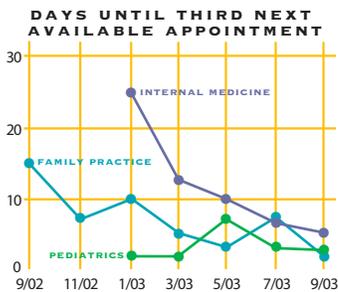
The Everett Clinic's first attempt at improving patient access in 1999 was moderately successful, but it did not produce the results the clinic wanted. So, in June 2002, the clinic intensified its efforts by joining IHI's IMPACT network. Now, its success is unmistakable: the third next available appointment (a standard measure of appointment access) is usually within 24 hours of a patient's call.

"This is something that from a customer service point of view is outstanding," says Karen Nardinger, RN, a clinical practice manager at the 200-physician clinic that has nine locations in Washington State. "I can't say enough good things about it."

In its first attempt in 1999, the clinic implemented a "carve-out" model of advanced access, whereby a number of times each day were saved for same-day appointments. "Despite some improvements, we still had long waits for routine or non-urgent appointments," Nardinger says. "So, the clinic decided to implement the pure model of advanced access, which allows you to offer patients any type of appointment within two days."

The first site to implement the model was the 12-physician Everett Clinic at Harbour Pointe in Mukilteo, Washington. In September 2002, it was taking 15 days to get an appointment with the family practice physicians at Harbour Pointe. By September 2003, the wait was down to less than one day. In December 2002, a patient needing an appointment with a Harbour Pointe pediatrician had to wait five days. By September 2003, the wait was less than a day.

"It has brought a reduction in chaos to our day," Nardinger says of advanced access. "Days are more controlled and our patient satisfaction scores have risen about 30%." Now the clinic is working to spread the open access approach to other primary care sites and to the 100 specialty care physicians in the clinic as well.



Streamlining the Office Practice

NAVAL HOSPITAL PENSACOLA

The Naval Hospital Pensacola (Florida) found that, when it began working on advanced patient access as a member of IHI's IMPACT network, it improved access to care and practice efficiency at the same time.

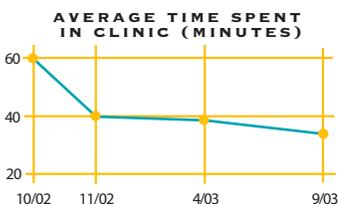
As a result, physicians in the hospital's pediatric clinic saw more patients each month without feeling overworked, as they often seemed to feel in the past, says Connie Vallandingham, a health systems specialist at the hospital.

In October 2002 the pediatric clinic saw 1,350 patients per month. One year later, the clinic had 1,671 patients, a 23.7 percent increase, notes Vallandingham. Additionally, the time patients spent in the clinic dropped from an average of about 60 minutes in October 2002 to about 34 minutes a year later, freeing the four physicians and two nurse practitioners to spend time with other patients and conduct training.

When the program started, the clinic wanted to reduce its patient backlog and eliminate inefficiencies. Patients were spending too much time waiting for exam rooms to become available, in part because nurses were using these rooms as offices. By making a portion of the waiting room into a nursing center, the clinic opened up additional exam rooms. Then, by having each patient check in and go directly to see a provider, the clinic eliminated waiting time in the reception area, improving patient flow.

At the same time, the clinic also made a conscious effort to match patients with their assigned health care providers. In 2002, only about 27 percent of patients were seeing their assigned providers. A year later, the match rate was up to 57 percent.

"If we get the right person doing the right job, then we should be able to take some of the workload off the providers to open up more of each provider's time," explains Vallandingham.





NEW APPROACHES TO
APPOINTMENT SCHEDULING
ARE DRAMATICALLY REDUCING
THE AMOUNT OF TIME
PATIENTS SPEND WAITING
FOR CARE.

Reducing Waiting Times

THE VETERANS HEALTH ADMINISTRATION

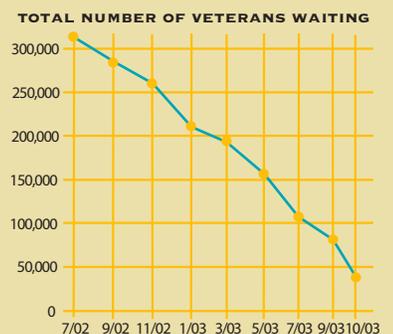
The Veterans Health Administration (VHA) has dramatically reduced waiting times for appointments by targeting six clinical areas for improvements in patient access. Since the program started four years ago, average system-wide waiting times for appointments have declined sharply. In primary care, for example, national waiting times for the next available appointment dropped by 53 percent, from 60.4 days to 28.2 days.

"We have turned a major ocean liner around," says Odette Levesque, RN, NP, project coordinator for the initiative. When seeking care from the VHA, 80 percent of veterans visit one of six clinics: primary care, audiology, cardiology, eye care, orthopedics, and urology, Levesque explains. "So, we started there," she says.

In 1999, the VHA enrolled teams from 134 sites in an IHI Collaborative to learn strategies for reducing delays and waiting times. By implementing the principles of advanced clinic access, these clinics brought their average waiting time for an appointment down by 54 percent.

This success was significant in a system with 21 Veterans Integrated Service Networks (or VISNs) and thousands of locations. But spreading this success throughout the large VHA system proved to be a significant challenge. "Each site must examine their own gap between supply and demand and redesign accordingly," says Renee Parlier, RN, MPA, national program manager for the VHA Advanced Clinic Access Initiative. So, the VHA created a National Leadership Team, an Advanced Clinic Access Steering Committee, a network of contacts at each VISN, and a group of clinicians who agreed to serve as coaches on advanced clinic access.

While the results are beginning to speak for themselves, Levesque estimates the project is still only about 10 to 15 percent complete. "We're pleased with the progress, but we've still got a long way to go," she says.





we never wasted supplies, equipment, time, energy or ideas?

A GUIDING IHI PRINCIPLE OF IMPROVEMENT IS THAT EVERY SYSTEM IS PERFECTLY DESIGNED TO ACHIEVE THE RESULTS IT GETS. IF MOST PHYSICIANS ARE PRODUCTIVE ONLY 50% OF THEIR TIME, AS SOME EXPERTS ESTIMATE, IT IS BECAUSE THE SYSTEM IN WHICH THEY LABOR WORKS AGAINST THEM. CREATING A LESS WASTEFUL HEALTH CARE SYSTEM MAKES IT POSSIBLE FOR CLINICIANS TO DO MORE WITH LESS.

Reducing Readmissions for Heart Failure Patients

HACKENSACK UNIVERSITY MEDICAL CENTER

New technology routinely enhances the quality and effectiveness of diagnosis and treatment. But sometimes putting old technology to new uses can be just as effective, and more efficient.

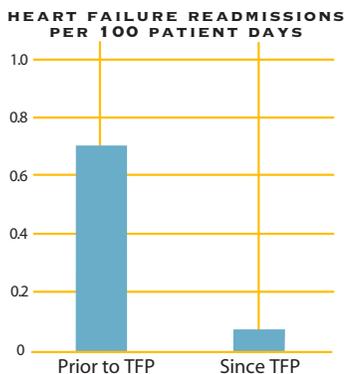
Clinical staff at Hackensack University Medical Center (HUMC) in New Jersey, participants in the Pursuing Perfection program, an initiative of the Robert Wood Johnson Foundation for which IHI is the National Program Office, are using the telephone to

follow up on heart failure patients after they've been discharged. Keeping clinical tabs on patients by phone is not only efficient, it is also effective. Since implementing the telephone follow-up program (TFP), readmission rates for heart failure patients have dropped by 78%. Fewer readmissions mean that staff and other resources are used more appropriately.

Tapped to run the TFP, nurses Michelle Browning and Tami Azouri launched an internal publicity campaign aimed at getting physicians to enroll their patients in the program. "We started with discharge planners," says Browning, "then attended rounds on the primary cardiac floors, and put announcements in all physicians' mailboxes. We also called them directly when we found patients on rounds we thought might be appropriate for TFP."

Browning and Azouri use a computer program they helped develop to collect patients' data and to help them track specific health indicators from patients at home, such as weight, swelling, shortness of breath, pain, appetite and activity level. Through regular contact they can monitor patients' needs and communicate with their physicians if there is an indication that medications should be adjusted.

"This is a big culture shift for our doctors," says Browning. "It's such a big hospital that many of the doctors don't know us, and it is a leap of faith for them to trust us with their patients. But they are growing more comfortable with it as they begin to see the program's value, and their patients are telling them how much they like it. Change like this takes time."



Improving Patient Flow from the PACU to Inpatient Bed

EAST ALABAMA MEDICAL CENTER

For patients who pass through multiple departments during a hospital visit – say, from the emergency department to x-ray to surgery to post-op to an inpatient unit – every "handoff" brings the possibility of delay. Streamlining the journey is known as improving patient flow.

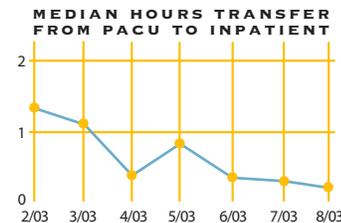
East Alabama Medical Center (EAMC), a 314-bed acute care regional referral center located in Opelika, Alabama, was typical of most hospitals: delays in moving patients through the hospital were common. But as a member of IHI's IMPACT network, EAMC knew that improvement was possible. And they were right: working to reduce bottlenecks, they have lowered the average transfer time from the post-anesthesia care unit (PACU) to an inpatient bed by 80%.

"I am responsible for looking at patient flow in the whole hospital," says Laura Nelson, RN, manager of EAMC's new bed-capacity center. The very idea of centralizing responsibility for the big picture of patient flow is novel. But it is just the kind of rethinking that enables people to break old habits and create breakthrough improvement.

"We did a lot of PDSA cycles and tried a lot of different things to reduce our PACU-to-inpatient times," says Nelson. "One of the things that has really made a difference is faxing reports to the receiving floor."

The telephone has long been the standard means of transferring information about a patient when that patient moves to a new unit. "But nurses aren't always able to come to the phone when you're ready to report on a patient, so there is a delay until that nurse can call back," says Nelson. Faxing the report is more efficient, but represents a significant culture change.

"Initially we had a lot of nurses who said they couldn't get the information they needed from a piece of paper; they have to talk with someone. Now that they are used to faxed reports, they want everything on paper," says Nelson. "Now we are working on faxing reports from the ER to receiving units."





WHEN EMERGENCY DEPARTMENTS ARE
OVERCROWDED, IT IS OFTEN BECAUSE
THE HOSPITAL LACKS THE ABILITY TO
MOVE PATIENTS FORWARD.

Reducing Transfer Time from ED to Inpatient Bed

LEE MEMORIAL HOSPITAL

Emergency departments are commonly thought to be overcrowded because they are not big enough to accommodate the needs of their communities. But a recent report on ED overcrowding by the U.S. General Accounting Office said this: "...the factor most commonly associated with crowding was the inability to transfer emergency patients to inpatient beds once a decision had been made to admit them as hospital patients rather than to treat and release them."

Staff from Lee Memorial Hospital in Fort Myers, Florida, learned the same thing at an IHI IMPACT meeting on improving patient flow. By putting in place the steps they learned, they were able to reduce transfer time from the ED to an inpatient bed by 80%.

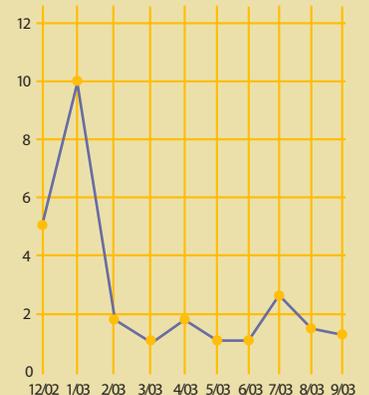
Linda Biittner, RN, facilitated the flow team at Lee Memorial. She and her colleagues began by doing something counterintuitive: improving the nurse-to-patient ratio in the ED from 1:4 to 1:3. "There were always patients just waiting to be discharged. When you have three other patients, that discharge is not your priority, so they have to wait," says Biittner. "Reducing the nurses' patient load lets them be far more productive."

They also introduced bedside registration, as well as a new computer-based system that tracks how long admitted patients have been in the ED. "I can pull a computer report on how long our patients are waiting, or how long each doctor spends with patients, and that helps us understand our flow better," says Biittner.

ED staff now fax reports to nurses on inpatient units prior to transferring patients, eliminating the time-consuming telephone tag that often preceded such transfers. To assure that beds are ready when patients arrive, they created a bed turnaround team. Today, the only person allowed to call a "stat clean" is the patient flow coordinator. "Every time someone called a stat clean, it took everyone away from the job they were supposed to be doing," says Biittner. Bed turnaround has been reduced from an average of 38 to 21 minutes.

"It requires ongoing vigilance," says Biittner, "you have to keep revisiting the changes you've made to make sure they are being carried out consistently. But we have proven that we are on the right track."

MEDIAN HOURS TRANSFER FROM ED TO INPATIENT





if... care did not vary in quality because of personal characteristics?

IT IS A SIMPLE AND NOBLE GOAL: DELIVER THE SAME QUALITY OF CARE TO ALL PEOPLE, REGARDLESS OF THEIR RACE, ETHNICITY, GENDER OR SOCIO-ECONOMIC STATUS. DISPARITY IN CARE BURDENS SOME POPULATIONS WITH POORER HEALTH AND SHORTER LIFE EXPECTANCIES. FORTUNATELY, IMPROVEMENT EFFORTS ARE BEGINNING TO CLOSE THE GAP AND HASTEN THE DAY WHEN EVERYONE HAS ACCESS TO CARE OF THE HIGHEST QUALITY.

Caring for Patients with HIV

CHRISTIANA CARE HEALTH SERVICES

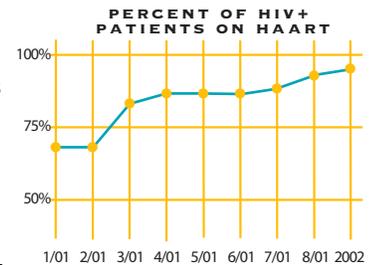
Caring for an estimated 65% of HIV patients who are accessing care in the state, Christiana Care Health Services is the largest provider of HIV/AIDS care in Delaware. There, the staff has placed special emphasis on improving care for one of the clinic's most disadvantaged populations: women who are pregnant, are currently abusing drugs, have advanced HIV disease, or have mental illness.

A member of IHI's IMPACT network, Christiana Care has worked to apply improvement techniques commonly used to manage chronic diseases to the care of this population, as well as to all its patients who are HIV+ or diagnosed with AIDS. The results are impressive: in two years' time the percentage of HIV+ patients on appropriate Highly Active Anti-Retroviral Therapy (HAART) has risen from 61% to 92%.

Many of these particularly vulnerable women are enrolled in the clinic's Title IV Intensive Care Management Program, funded through Ryan White Title IV federal funding. The grant funds a team of professionals who provide coordinated, family-centered and culturally sensitive case management to this multifaceted population.

"Title IV clients are particularly well served by intensive care management," says Robin Bidwell, BSN, RNC, CCRS, performance improvement coordinator at Christiana Care. "About 40% of the women in the Title IV program are single heads of households with children. These women typically put the needs of their families first. They tend to miss appointments and forego medication. When they have a dual diagnosis of mental illness, they are particularly challenged."

The Title IV team includes a social worker, a social work technician, an educator, a coordinating nurse and care provider, and a nurse practitioner. The team works with the patient and coordinates with the primary care physician to create a care plan. Patients help set their own goals and review their care plan regularly with staff. The team also collaborates with outside agencies to coordinate services and support the patients as fully as possible.



Removing Barriers to Care

CLINICA CAMPESINA

For many people, going to the doctor is a minor inconvenience. For some, especially those disadvantaged by poverty, it can be a major undertaking. Reducing the barriers to care for these patients can increase their sense of connection with their health care providers and improve compliance and outcomes.

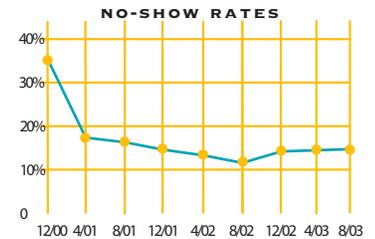
With three locations in north central Colorado, La Clinica Campesina Family Health Services serves about 15,000 patients, 40% of whom are Hispanic, 50% of whom are uninsured, and 100% of whom are medically underserved. Because diabetes is more prevalent among Hispanics, Clinica has a higher-than-normal proportion of diabetic patients who require regular visits to manage their disease.

Many patients would faithfully make appointments at appropriate intervals, says Clinica's vice president Cory Sevin, RN, MSN, but would fail to keep them. "Our no-show rate was up to about 35%, which is typical for community health centers," she says.

Many of the reasons for no-shows had to do with patients' life situations, says Sevin. "They might have transportation or childcare problems. Most have little empowerment to leave their jobs for appointments." Sevin and her colleagues knew they couldn't change those things, but they could change their system to be more accommodating.

"When the only appointment you can get is three or four weeks away, you take it. You have no idea if you'll actually be able to make it on that day and that time," she says. So Clinica began to move toward a model of advanced access scheduling they learned through IHI that keeps the majority of appointments open for same-day visits. They watched their no-show rate begin to plummet.

"Now, chronic care patients are much more likely to get appointments when they want and need them," says Sevin. Providers are much happier and more productive, she says, because the clinic no longer has to double or triple book to compensate for the high level of no-shows. "The chaos is gone. They are able to review their registries, reach out to patients who need to be seen, and devote more time to planned care such as immunizations and screenings."



IN BALTIMORE,
THE LIFE EXPECTANCY
OF A BLACK CHILD IS
SEVEN YEARS SHORTER
THAN THAT OF A
WHITE CHILD.



Reducing Disparity in Diabetes Care

CARE SOUTH CAROLINA

With a patient-population that is 69% non-white, CareSouth Carolina takes the issue of equity in health care very seriously. "This is our strong suit," says chief executive officer Ann Lewis. "It is woven into our very culture."

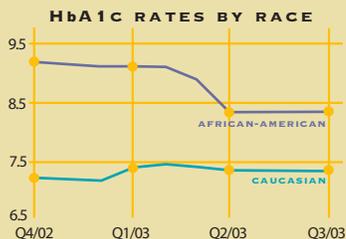
Headquartered in Hartsville, South Carolina, and with six locations, CareSouth provides primary and preventive health care for the 20,000 medically underserved residents of five surrounding counties. The residents of these counties are rated among the highest in the U.S. for diabetes and cardiovascular disease. Remarkably, the average HbA1c for CareSouth diabetes patients is 8.0. The American Diabetes Association says that an HbA1c reading below 8.0 indicates good control.

An IHI IMPACT network member, CareSouth was among the first participants in the Health Disparities Collaborative, run jointly by IHI and the federal Bureau of Primary Health Care, which provides significant funding for CareSouth and other similar clinics throughout the nation.

"When we started the diabetes Collaborative in 1999, we had 50 patients in the registry. Their average HbA1c was over 13," Lewis recalls. Their registry now includes more than 1,250 patients.

"This program has made a remarkable impact on the quality of life of these individuals," says Lewis. "Because the intervention is the same for all patients, we are eliminating health disparities among racial, rural and poverty lines for patients with diabetes. I go to group visits where patients with diabetes are practically in tears with gratitude about how much our new approach to care is helping them."

Presently, says Lewis, 90% of patients participating in the program have documented self-management goals. Data show improvements in everything from foot and eye care for diabetes patients to the mental health status of depression clients. "We offer first-class care for first-class people," says Lewis. "Disparity is not just about outcomes, it's also about how you treat your patients. That's been part of our culture since the very beginning."





if... all health care workers loved their jobs?

MOTIVATED PRIMARILY BY A DESIRE TO SERVE OTHERS, HEALTH CARE WORKERS ARE INCREASINGLY FRUSTRATED BY A SYSTEM THAT MAKES THEIR WORK HARDER THAN IT SHOULD BE. A VIBRANT, MOTIVATED AND SKILLED WORKFORCE IS CRITICALLY IMPORTANT TO CONTINUOUS IMPROVEMENT, AND A KEY INGREDIENT TO THE DELIVERY OF HIGH QUALITY CARE.

Reducing Annualized Turnover

PRAIRIE LAKES HOSPITAL

Among the things that urban and rural hospitals seem to have in common is higher-than-desired staff turnover. This was the case at Prairie Lakes Hospital, an 81-bed hospital in Watertown, in the glacial lakes and prairie region of northeastern South Dakota.

With staff turnover in the med/surg unit reaching a high of 65% (annualized), Prairie Lakes leadership knew they needed to address the problem. Working with other organizations in IHI's Achieving Workforce Excellence Collaborative, Prairie Lakes implemented a number of changes that have reduced turnover to less than 15%, a rate the hospital has sustained for the past

fiscal year.

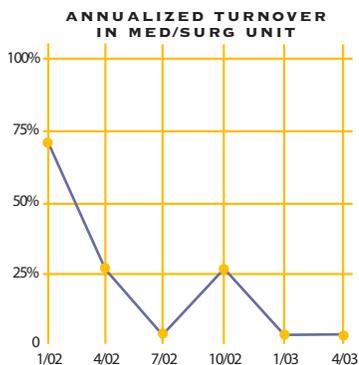
Jill Fuller, Prairie Lake's vice president of patient care services, began a series of meetings with the med/surg staff to try to find out why so many people were leaving their jobs. "The staff taught us to look at med/surg as a specialty unit. They needed the same amount of respect and attention you would give any other specialty unit of the hospital, like OB or ICU," recalls Fuller.

Fuller and senior leadership began to foster a culture change by reorganizing nurse leadership, giving the med/surg unit more support. "Instead of one nurse assigned to manage both med/surg and OB, the med/surg unit was assigned a dedicated nurse manager. She is their advocate."

Staff also got more opportunities for professional development, along with better pay and benefits. Nurses were asked for ideas about how to enhance equipment in order to improve care. Their ideas were heard and many implemented.

Fuller says they all learned an important principle during the process of testing and creating change: the changes that work the best and take hold the best are those that are generated by the staff themselves.

"It used to be management telling everyone how to work," says Fuller. "When the staff started telling us how to work everything worked better. They really improved the system."



Reducing First-Year Turnover

CONCORD HOSPITAL

"Everyone says it is a given that you will have a significant number of people leave within their first year of employment," says Suzanne McKendry, director of human resources at Concord Hospital in Concord, New Hampshire. "We decided to challenge that assumption."

Concord Hospital is a 299-bed regional medical center serving 22 central New Hampshire communities. First-year turnover had reached as high as 60% of total turnover, and the costs both financial and to staff satisfaction were unacceptable. With the help of IHI's Achieving Workforce Excellence Collaborative, McKendry says they began to evaluate and address the problem.

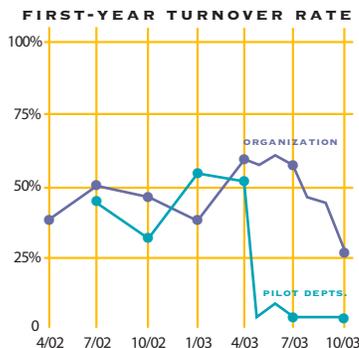
"The primary issues were fit and support for newly hired staff," says McKendry. "We were sometimes in a hiring frenzy and wouldn't look closely enough at how well the person would fit with our organizational culture. When we analyzed the causes of first year separations, it was clear that new staff were having difficulty functioning effectively as members of a team. Many had no experience working in a team-oriented organization such as ours."

Secondly, says McKendry, they realized they weren't doing enough to help people adjust to their new jobs. "In some cases we were letting them sink or swim," she says.

Now, she says, "Our aim is to hire for fit and train for skills. We developed a behavioral-based interview tool that helps us determine how well the individual will assimilate into our culture. Based on their past experience, we work with our Education Services and Organizational Training and Development departments to design an orientation program tailored to meet the specific training needs of new hires. The orientation is spread out through their entire first year."

The orientation is spread out through their entire first year."

The three departments that have piloted these new approaches are seeing meaningful results, with first-year turnover rates dropping from a high of 55% to 0% for the past four months. "We're cautiously optimistic," says McKendry. "The constant cycle of replacing and re-training new staff has been broken, which is having a positive impact on staff satisfaction and ultimately patient care. Sustaining the gains and spreading the concept throughout the organization will be our next challenge."





RECRUITING AND RETAINING
QUALIFIED AND EXPERIENCED
NURSES IS PARTICULARLY
CHALLENGING IN THE MIDST
OF A NURSING SHORTAGE.

Reducing Nurse Vacancy Rates

NORTHWESTERN MEMORIAL HOSPITAL

One of the current problems in health care is the nurse vacancy rate, estimated at a national average of 11 to 14%. Per diem and contract nurses fill many of these vacancies, but at a tremendous cost both financially and in terms of continuity of care.

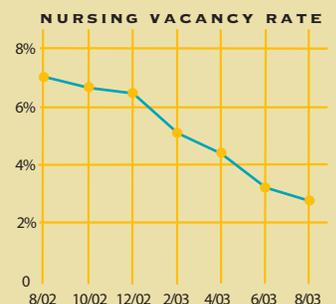
Northwestern Memorial Hospital (NMH) in Chicago, a participant in the Workforce Development domain in IHI's IMPACT network, has addressed this issue head-on with a comprehensive strategy aimed not just at nurses, but also at its entire workforce. Two years into its eight-year plan, the results are impressive: the nurse vacancy rate at NMH has dropped from an already low 7% to 2.6%. Vacancies in the general workforce are down from 5% to 3.1%.

A 720-bed academic medical center located in downtown Chicago, NMH is affiliated with Northwestern University's Feinberg School of Medicine. With 6,400 employees and 1,200 affiliated physicians, workforce issues are no small matter. "We have had a specific focus on supporting and developing our workforce for some time now," says Dean Manheimer, senior vice president for human resources (HR). "When we learned that IHI was also working in this area, we were happy to participate."

NMH's "Best People" strategy is a highly organized, long-term, multi-faceted approach to workforce issues that addresses six areas: recruitment, continuous learning and development, diversity, meaningful work, best HR practices, and leadership development. There are robust initiatives underway in each category.

One of the boldest steps NMH took was to create the Northwestern Memorial Academy, which houses all of its educational and training activities. "We recently built three imaging schools in-house: nuclear medicine, radiation therapy, and ultrasound," says HR program manager Maria Lin. "Now we can train in these areas and hire the best and the brightest. We used to spend nearly \$1 million in agency fees to staff our nuclear medicine department. Now we 'grow our own' and have no agency fees in that area."

"Workforce issues are complex and multidimensional," says Manheimer. "There are no quick fixes. You have to think long term, and stay the course."





if... all students learned that quality improvement is their responsibility?

TEACHING HEALTH PROFESSIONS STUDENTS HOW TO EVALUATE AND DEVELOP MEASURES TO IMPROVE QUALITY GIVES THEM THE TOOLS THEY WILL NEED TO CONTINUALLY IMPROVE CARE THROUGHOUT THEIR CAREERS. IHI HAS BEEN WORKING “BEHIND THE SCENES” OF ACADEMIC MEDICINE TO HELP FACILITATE THE INTRODUCTION OF THESE SKILLS AND ATTITUDES INTO CURRICULUM, SO THAT TODAY’S STUDENTS WILL BE TOMORROW’S IMPROVERS.

Medical School Collaborative

Academic medical centers are large, complex organizations carrying out hugely important work. Perhaps because of their complexity and their reliance on established tradition, the momentum of change that has begun gathering in health service delivery systems throughout the U.S. and other countries has, for the most part, been slow to spread to academic medicine.

IHI is supporting a number of efforts to change this. Working with the Association of American Medical Colleges (AAMC), IHI is sponsoring a medical school collaborative to facilitate the teaching of quality-based competencies to medical students. 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 developed by a committee chaired by Paul Batalden, MD, an IHI co-founder and current Board member.

Facilitated by Griner and Batalden, the Collaborative began in March 2003 with deans and faculty from six medical schools from across the U.S. “We began by developing an action plan to facilitate curricular change at those schools, and ultimately at all schools,” says Griner.

As in other IHI Collaboratives, the goal is to increase the rate of change by sharing information across institutions. “There are several specific action themes we focus on,” says Griner, “and schools will be clustering around a particular theme.” Themes include exemplary learning sites, faculty development, organizational commitment, vertical integration, interdisciplinary learning, assessment/evaluation, and student initiated learning.

“The Collaborative is growing faster than we anticipated,” says Griner. Five additional schools have joined the original six, and more have expressed interest and “will be brought on sequentially,” he says. “Interest in the quality agenda is mushrooming among academic medical centers. The timing is right and schools are ready to come on board.”

Certifying Boards

Medical schools’ interest in creating quality-related curriculum can be traced in part to new expectations placed on them by certifying boards and accrediting organizations.

The Accreditation Council for Graduate Medical Education (ACGME) and the American Board of Medical Specialties (ABMS) have recently adopted new standards regarding the content of graduate health professional learning. The standards, which include competency in “practice-based learning and improvement” and “systems-based practice,” were developed and adopted under the leadership of IHI Board member David Leach, MD, executive director of ACGME.

“The development of these competency standards and their movement throughout organized medicine is a huge story,” says Paul Batalden, MD, who chaired the advisory committee that developed the competencies. “Because these two important certifying bodies adopted them, every specialty board has adopted them. The ACGME accredits 7,800 residency programs, where there are 100,000 physicians in training. They all have to learn these competencies.”

IHI and ACGME present an annual seminar offering academic professionals practical ways of teaching and assessing learning about quality-related competencies.



quality improvement was a mainstream movement?

THE DAY IS COMING WHEN
 QUALITY IMPROVEMENT IS
 UNIVERSALLY VIEWED AS
 A CORE COMPONENT OF
 GIVING CARE.



THE IMPRESSIVE RESULTS IN THIS REPORT DEMONSTRATE THAT QUALITY IMPROVEMENT IS INCREASINGLY BECOMING A CORE BUSINESS STRATEGY FOR HEALTH CARE ORGANIZATIONS, AS IT IS IN MOST OTHER INDUSTRIES.

The momentum is growing. Quality improvement is no longer a fringe philosophy attractive only to idealistic early adopters – it is rapidly becoming the mainstream approach for ensuring that the best possible care is delivered to every patient, every day.

As evidence, we offer the following statistics on IHI's programs as of the end of 2003:

- Approximately 4,000 health care leaders from around the world will attend IHI's National Forum on Quality Improvement in Health Care in December 2003. This is an average annualized increase of 22% since its first year in 1989.
- More than 1.3 million "visits" were logged on IHI's website in 2003.
- More than 38,000 people have subscribed to IHI's monthly electronic newsletter.
- More than 110 organizations have joined IHI's IMPACT network.
- More than 600 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 movement is growing. And it will not stop as long as we continue to act on "What If."

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.



if... IHI had a program to meet the needs of organizations at all stages

IHI'S PROGRAMS ARE BUILT AROUND THE SIMPLE NOTION, TAUGHT TO US BY TOM NOLAN, PHD, THAT THERE ARE THREE ESSENTIAL PRECONDITIONS FOR THE IMPROVEMENT OF ANYTHING: **WILL**, THE ACKNOWLEDGMENT THAT DEFECTS EXIST AND THE DESIRE TO IMPROVE THEM; **IDEAS**, NOVEL CONCEPTS FOR CHANGES THAT WILL RESULT IN IMPROVEMENT; AND **EXECUTION**, THE ABILITY TO EFFECTIVELY APPLY CHANGES AND SUSTAIN IMPROVEMENTS.

WE RECOGNIZE THAT HEALTH CARE ORGANIZATIONS ARE AT DIFFERENT STAGES OF PROGRESS IN EACH OF THESE AREAS.

- 1 **Some organizations are just beginning their improvement journey,** and are focused on raising awareness, building the will for change, acquiring knowledge, and exploring new ideas and change concepts.
- 2 **Others have made a commitment to real change,** are building the internal capacity for improvement, and are taking action to implement best practices and dramatically improve specific areas of care.
- 3 **Still others have developed significant internal capacity,** have achieved meaningful successes and an improvement culture, and are now seeking to "push the envelope" through innovation and redesign.

WHEREVER YOUR ORGANIZATION FINDS ITSELF ON THIS JOURNEY, IHI HAS A PROGRAM YOU CAN JOIN THAT CAN HELP YOU MOVE TO THE NEXT LEVEL.

es of improvement? **We do!**

IHI.ORG AND QUALITYHEALTHCARE.ORG

IHI's free online resources contain all of IHI's improvement knowledge and tools, making them available to anyone, anywhere whose aim is to improve health care. IHI has plans underway now to merge its two websites, IHI.org and QualityHealthCare.org, into one single integrated site, IHI.org. This will vastly increase the content and interactions available in the worldwide community of people trying to improve health care, enabling health care professionals around the world to collaborate on the latest strategies and techniques for health care improvement.

CONTINUOUS IMPROVEMENT NEWSLETTER

IHI's free monthly e-newsletter includes improvement tips, success stories, and updates on IHI's programs. It is an excellent way to keep informed of IHI's activities and improvement work in general. You can subscribe on our website.

QUALITY AND SAFETY IN HEALTH CARE JOURNAL

A bi-monthly journal, co-owned by IHI and the BMJ Publishing Group, which is dedicated to the pursuit of peer-reviewed ideas, solutions, and practices. To subscribe, go to www.qhc.bmjournals.com.

"CALLS TO ACTION" CONFERENCE CALL SERIES

This series of programs is designed to rapidly spread improvement knowledge throughout the health care industry. Conference calls on focused topics provide participants all the benefits of attending a "real" conference without leaving the convenience of their own organization.

INTERNATIONAL SUMMITS

IHI hosts a variety of conferences we call "International Summits," which focus on specific areas that are ripe for improvement. These events feature the best ideas and faculty for specific topics such as redesigning the clinical office practice, improving critical care, or achieving workforce excellence.

FORUMS

The National Forum on Quality Improvement in Health Care is the premier "meeting place" for people committed to the mission of improving health care. This annual event draws approximately 4,000 health care leaders from around the world. IHI also hosts a European Forum and an Asia Pacific Forum in partnership with the BMJ Publishing Group.

BREAKTHROUGH SERIES COLLABORATIVES

For organizations that are ready to get results in focused improvement areas, IHI offers an array of collaborative improvement projects through our Breakthrough Series. These initiatives bring together 20 to 50 health care organizations to work collaboratively, and with IHI's expert faculty, to make rapid changes that produce breakthrough results. IHI also offers high-quality training in all aspects of the Breakthrough Series methodology through our Breakthrough Series College.

IMPACT NETWORK

IMPACT is IHI's results-driven network for change, providing member organizations a framework for improving on leadership issues while making breakthrough change on the frontline. More than a hundred change-oriented health care organizations have already joined this improvement community. We invite your organization to be part of it too.

**FOR MORE INFORMATION ABOUT IHI'S PROGRAMS, VISIT WWW.IHI.ORG
OR CALL IHI TOLL-FREE AT (888) 320-6937.**



About IHI

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 CATALYST FOR CHANGE, CULTIVATING INNOVATIVE CONCEPTS FOR IMPROVING PATIENT CARE AND IMPLEMENTING PROGRAMS FOR PUTTING THOSE IDEAS INTO ACTION. THOUSANDS OF HEALTH CARE PROVIDERS PARTICIPATE IN IHI'S GROUNDBREAKING WORK.

EMPLOYING A STAFF OF MORE THAN 60 PEOPLE AND MAINTAINING PARTNERSHIPS WITH OVER 200 FACULTY MEMBERS, IHI OFFERS COMPREHENSIVE PRODUCTS AND SERVICES THAT FACILITATE DEMONSTRABLE IMPROVEMENT IN HEALTH CARE ORGANIZATIONS. THE GOAL IS TO CLOSE THE GAP BETWEEN WHAT IS KNOWN TO BE THE BEST CARE AND THE CARE THAT IS ACTUALLY DELIVERED.

Leadership

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President and Chief Executive Officer

MAUREEN BISOGNANO
*Executive Vice President and
Chief Operating Officer*

PENNY CARVER
Senior Vice President

CAROL HARADEN, PHD
Vice President

JOANNE HEALY
Vice President

ANDREA KABCENELL, RN, MPH
Deputy Director, Pursuing Perfection

THOMAS NOLAN, PHD
Senior Fellow

TOM NOVAK
Chief Financial Officer

PAT RUTHERFORD, MS, RN
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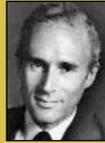
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“SIGNIFICANT PERFORMANCE
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ACCOMPLISHED BY TACKLING DRAMATIC,
SYSTEM-LEVEL CHANGES. THE COURAGEOUS
AMONG US WILL GET THERE FIRST, ACHIEVING
PERFORMANCE LEVELS NEVER IMAGINED
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Donald M. Berwick, MD, MPP, President and CEO,

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