The Jewish Healthcare Foundation of Pittsburgh

August 2005

BRANCHES

NURSE-LED DISCOVERY

SAVING STEPS, SAVING PATIENTS

Heroism is all in a day's work for nurses — ever since 1854, when Florence Nightingale took 38 nurses to Turkey to treat 8,000 British soldiers for cholera, malaria, and wounds that were suffered during the Crimean War, nursing patients back to health.

Today's nurses are on the front lines of another war, heroically trying to nurse systems within which they work. They struggle to provide the most efficient, safest possible, best-practice care to every patient, every time, in today's complex, chaotic, and sometimes irrational healthcare system. Patient care is riddled with challenges, such as missing supplies, malfunctioning equipment or unclear orders. Nurses work around these obstacles, adding many steps to their work, nursing the "system" while nursing patients.

Tending to the recurrent needs of the sick and wounded aspects of the healthcare system is taking its toll. Nurses become accustomed to working around problems rather than removing their systemic causes. Frustrating "work arounds," patient vulnerabilities and organizational cultures that hinder problem-solving are contributing to the nursing shortage plaguing the region and nation.

But some nurses, with the support of their organizations, are gaining the skills and experiences to heal not only patients but their care systems. They are collecting and using data at the point of care to redesign work and determine best practices.

The Magnet Recognition Program® of the American Nurses Credentialing Center (ANCC) supports and recognizes those nurses and their employers. In advancing quality patient care, it stresses nurse autonomy and nurse professional development, and includes nurse-led research in its requirements. But most nurses have been afforded neither the time nor the training to collect and use data for daily clinical improvement.

Some local employers are creating the time and providing the training. Consider the nurse-led healthcare teams in hospital units and ambulatory care settings who are using the Perfecting Patient Care™ System to improve work processes.

Or the many healthcare providers striving for Magnet status, evidenced by two well-attended regional summits on the Magnet program hosted by the Foundation's Health Careers Futures.

To extend the number of clinical nurse quality and safety leaders, the Foundation created the Nurse Navigator Fellowship to foster nurse-led discovery and provide needed skills and tools.

Nurses on the front lines of care are in the best position to remove obstacles to perfect care. The new war will be won…for nurses and their patients, defeat is not an option.

"Too often as nurses, we are seduced to do what is urgent, but not what is important … We convince ourselves that we do not have time [to fix broken systems]. But we have to make the time. We must make the case for fundamental improvements to our own work processes."

Gail Wolf, RN, MSN
Chief Nursing Officer
University of Pittsburgh Medical Center,
at the Nurse-Led Discovery Summit
June 1, 2005

PENNSYLVANIA'S NURSING CRISIS

- **In 2000, the supply of registered nurses was estimated at 104,000, while the demand was nearly 110,000 — a five percent shortage.**
- **3,500 nursing positions were vacant in 2003, reflecting an 8.6 percent vacancy rate.**
- **By 2020, the supply of registered nurses is estimated to fall short of demand by 30 percent, or 40,381 registered nurses.**
- **37.9 percent of registered nurses and 32.2 percent of licensed practical nurses plan to leave nursing in five years.**
- **One out of four registered nurses do not work in health care.**
- **In 2002, the Pennsylvania Department of Health convened a Health Professions Study Group to review the issues surrounding the shortages of registered nurses (RNs) and licensed practical nurses (LPNs). The group's task force on nurse recruitment and retention is examining research-based strategies and best practices to enhance employee retention, and identifying ways to encourage the adoption of these strategies.**

Sources:
Hospital and Health System Association of Pennsylvania
U.S. Health Resources and Services Administration

PERFECTING PATIENT CARE™

ORGANIC, DYNAMIC QUALITY IMPROVEMENT BY FRONT-LINE HEALTHCARE WORKERS

- **The work of health care is designed, organized and managed according to patient need.**
- **Errors and poor outcomes are viewed as opportunities for learning and improvement, not blame and punishment.**
- **Faulty systems are understood to be the source of errors and poor outcomes, not faulty people.**
- **Care processes are systematically tracked to determine whether the best possible patient outcomes are achieved.**
- **Clinical professionals form learning teams, working collaboratively to use their skills and knowledge for experimentation and improvement in care processes.**
- **Direct observation, data collection, and real-time problem solving are conducted at the point of care; results are applied immediately to improve care.**

FOURTEEN FORCES OF MAGNETISM

IMPROVING HEALTHCARE QUALITY BY IMPROVING THE NURSING ENVIRONMENT

1. **Quality of nursing leadership**
2. **Organizational structure**
3. **Management style**
4. **Personnel policies and programs**
5. **Professional models of care**
6. **Quality of care**
7. **Quality improvement**
8. **Consultation and resources**
9. **Autonomy**
10. **Community and the hospital**
11. **Nurses as teachers**
12. **Image of nursing**
13. **Interdisciplinary relationships**
14. **Professional development**

American Nurses Credentialing Center

"MAGNETIZING" A REGION

Since 1999, partners in the Pittsburgh Regional Healthcare Initiative, a community coalition established by the Jewish Healthcare Foundation, have been perfecting patient care at the point of care. Trained in the Perfecting Patient Care™ System, or PPC, front-line healthcare workers — many of them nurses — are using their knowledge and experiences to redesign work and improve patient outcomes.

The underlying principle of the American Nurses Credentialing Center's Magnet Recognition Program®, that quality care will result from an environment in which nurses are empowered to lead and shape the care they deliver, complements that of PPC — that front-line healthcare workers, given the training, tools, and skills, can transform their own work practices and work environment to improve patient outcomes and care quality.

Pursuing Magnet principles — even if Magnet Status is not yet achieved — can move an organization closer to perfect patient care. So in March 2003, Health Careers Futures, a supporting organization of the Jewish Healthcare Foundation, hosted "Making Every Hospital a Workforce Magnet: Toward Attraction, Retention and Perfect Patient Care," a summit about the Magnet Program.

The summit was devoted to exploring the Magnet program, developed by the American Nurses Credentialing Center in 1992. The program grew from an American Academy of Nursing study of hospitals that were exceptionally successful in recruiting and retaining nursing talent. The study identified three defining characteristics that the hospitals shared: excellence in nursing administration, excellence in nursing practice and excellence in nursing professional development. Nurses in these high-achieving, high-quality hospitals, dubbed Magnet Facilities, were recognized, supported and involved in decision-making about patient care and hospital governance.

The Magnet Program has grown and has become a coveted honor for its positive effects on nursing and patient care. Nationally, 230 facilities have applied for Magnet Status — with eight in eastern Pennsylvania — and currently over 100 healthcare organizations have received the Status — with five in eastern Pennsylvania. Magnet hospitals demonstrate 14 "forces of magnetism," outlined at left.

But at the time of the summit, no Southwestern Pennsylvania hospitals had achieved Magnet Status, and few were pursuing it. Representatives from more than 65 healthcare organizations, including 21 hospitals, attended the summit and learned about the Magnet Program and how to promote it within the region.

In 2004, Health Careers Futures assessed the region's "magnetism" since the summit — specifically examining the effect of the summit on motivating hospitals to apply for Magnet Status. Fourteen hospitals in the region are now pursuing Magnet Status, citing a desire for improvement in patient care, support from the Magnet network, and better staff attraction and retention. Many more hospitals are pursuing Magnet principles, perfecting patient care by improving the nursing environment.

PROMOTING NURSE-LED DISCOVERY

Like the Perfecting Patient Care™ System, data collection and application by workers at the point of care are central to the Magnet program. Healthcare facilities pursuing Magnet status must demonstrate that practicing nurses are involved in interdisciplinary team approaches to research, are engaged in making data-driven, evidence-based improvements in patient care, and have access to adequate, appropriate and current literature.

Making progress toward these criteria (featured below) requires substantial institutional commitment and nursing leadership. The requirements were in fact cited by the region's hospitals as the most significant obstacle to pursuing Magnet status or principles. Infrastructure and resources to assist staff nurses in developing nursing research protocols are not always present.

At the same time, the research criteria for Magnet Status are adaptable. Rigorous, large-scale research projects could be balanced by in-house research directed on hospital units by teams that provide care. Magnet hospitals, including community hospitals, have achieved the Status by leading such internal research.

To learn about such strategies and more, the region called on Health Careers Futures to host a follow-up Magnet summit. With the Jewish Healthcare Foundation and the Oncology Nursing Society, it convened the "Nurse-Led Discovery: Advancing Patient Care in Daily Practice" summit on June 1, 2005.

The second Magnet summit highlighted strategies to fulfill the Magnet research requirements, such as partnering with local academic institutions and completing research in-house. It also showcased nurse-led efforts to perfect patient care at the point of care by asking questions, collecting information, testing improvements, and sharing what they learn.

Using Magnet Data

The American Nurses Credentialing Center, with support from the Robert Wood Johnson Foundation, developed a database to facilitate the analysis of data collected through the Magnet Recognition Program®. The database includes key characteristics of hospitals and facilities granted Magnet Recognition®, as well as data on hospitals that had applied for Magnet status but were rejected. The center is exploring the possibility of linking the Magnet database with other public databases so that Magnet hospitals and other facilities can be compared.

RESEARCH (American Nurses Credentialing Center, Standard XIII)

"The nurse administrator supports research and integrates it into the delivery of nursing care and nursing administration."

Requirement	Interpretive Evidence
Magnet Measurement Criterion 13.1	
Fosters the identification of areas suitable for nursing research.	Demonstrate that quality assessment and improvement efforts are data-based and lend themselves to the identification of suitable research areas. Nurses involved in direct patient care help identify suitable research problems.
Core Measurement Criterion 13.2	
Supports procedures for review of proposed research studies, including protection of the rights of human subjects.	Adequate review of proposed and ongoing research studies; nursing staff training in the protection of human rights.
Magnet Measurement Criterion 13.3	
Facilitates the conduct and utilization of research and other scholarly activities.	Nurse researchers are encouraged and enabled to conduct studies; policies and procedures for clinical care based on current literature, which is easily accessible via library and/or online.
Magnet Measurement Criterion 13.4	
Advocates for resources to support research.	Research consultation and assistance are available; adequate, appropriate and current literature is available to practicing nurses.
Magnet Measurement Criterion 13.5	
Promotes research based on knowledge-driven research practice.	List of on-going research studies; other sources of clinical nursing data and information.

SHARING POINT OF CARE LESSONS

Data collection and front-line research can be mystifying, seeming to be in the exclusive realm of Ph.D.s. But in Magnet hospitals, nurses at all levels are leading such investigations at the point of care, collecting and using data to discover best practices and improve work processes — advancing both patient care and the nursing profession.

"Nurse-led research as seen in Magnet facilities raises awareness about the value of research, improves interdisciplinary relationships, and most important, builds the image of nurses as not only caregivers but also scholars and scientists," said Mary Ann Donahue, the nursing research director at Hackensack University Medical Center, a Magnet hospital, at the June 2005 Magnet summit on nurse-led discovery.

By bringing together nearly 250 leading members of the region's nursing community to share and learn from each other, the summit was an important step toward creating a regional learning network for perfecting patient care. Participants learned about Lancaster General Hospital's strategies to meet Magnet research requirements, and how West Virginia University Hospitals' critical care nurses were able to integrate research into their daily practice. Just a few of the summit's other sessions are featured below.

WHAT IS PERITONEAL DIALYSIS (PD)?

A treatment for patients whose kidneys are not functioning properly, PD offers an alternative to dialysis, which removes wastes and excess fluid from the blood when kidneys are not able to do so. In PD, a catheter is used to fill the abdomen with a dialysis solution. The lining of the abdominal cavity, the peritoneum, allows waste products and extra fluid to pass from blood into the solution. These wastes and fluid leave your body when the dialysis solution is drained. Continuous ambulatory PD allows patients to use the process without a machine.

THE BENEFITS OF PEER SUPPORT

- **Stimulates good ideas**
- **Provides checks and balances**
- **Motivates effort**
- **Generates better outcomes than when working alone**

POINT OF CARE LESSON

MD/RN Partnerships in Applied Research: Perfecting Peritoneal Dialysis

Beth Piraino, M.D., and Judith Bernadini, RN, both at the University of Pittsburgh, shared how their partnership, one that has spanned two and a half decades, has transformed the delivery of peritoneal dialysis. Known as PD, peritoneal dialysis was in the early 1980s a new treatment for patients with kidney disease or kidney failure. Piraino and Bernadini both shared an eagerness to learn, an interest in research, and an enthusiasm for the new therapy (see description at left). In 1982 they decided to establish a registry, or database about their PD patients and track their outcomes (infections, deaths, kidney transplants). They obtained approval from their institutional review board, or IRB, and determined how to store, manage, and report on their data. They established the current status of patient outcomes, set goals for outcome improvements, and designed research to address the problems that resulted in poor outcomes. Their work, focused on PD-related infection, resulted in the publication of 73 peer-reviewed publications on PD, over 100 presentations on PD, and international speaking engagements.

And it has resulted in new best practices in PD. In the early 1990s, a Piraino/Bernadini research project, later replicated three times, established that a new medication — exit-site mupirocin — could more effectively prevent staph infections at patients' catheter sites than the standard treatment. The treatment became the new standard of care. PD-related infections dropped dramatically from 1982 through 2004 among the University of Pittsburgh PD patients. Ten years later, Piraino and Bernadini hypothesized that a new medicine, gentamicin, would be effective against both staph and pseudomona infections, a bug that was still persistent in PD patients. Their research proved them right, bringing them ever closer to perfecting PD.

Throughout the summit,
nurses shared the fruits of their "data labors."
Several have applied the Perfecting Patient Care System,
demonstrating the power nurses have to transform care
and the systems that shape it by measuring what they see.

POINT OF CARE LESSON

Frontline Nursing: Eradicating MRSA

A nurse-led team at the VA Pittsburgh Medical Center, in trying to eliminate the transmission of methicillin-resistant *Staphylococous aureus* (MRSA) and improve patient transportation times to physical therapy appointments, discovered through observation and measurement that failures in obtaining clean wheelchairs on demand interfered with both goals. By improving the availability and sanitization of wheelchairs, the team created a system-wide improvement that solved the hospital's wheelchair inventory problem, reduced infection transmission, and measurably delivered patients to physical therapy appointments on time.

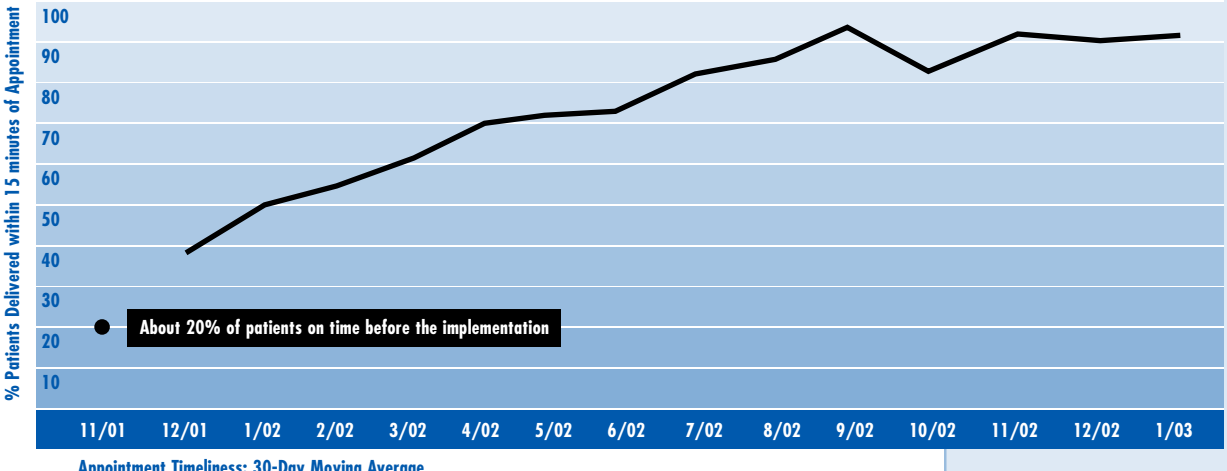
PERFECTING PATIENT CARE TEAMS

Solving problems one by one, in the course of work, with primary data collection and measurement

1. Identify a problem
2. Obtain primary baseline data
3. Review available secondary data
4. Design an improvement
5. Devise an internal test and test of value
6. Conduct tests
7. Measure effects in real time

GOAL: Highest quality, lowest cost, most efficient immediate response to patient needs

PATIENTS ARE GETTING THEIR PHYSICAL THERAPY ON TIME



POINT OF CARE LESSON

Doing Better without Delay: Eliminating CLABs

At Allegheny General, physicians and nurses decided to eliminate central-line associated bloodstream infections (CLABs) in its coronary care and medical intensive care units. They decided to do it right and do it fast, reinforcing adherence protocols, with relentless measurement and learning. The team observed variations in dressing change techniques, insertion techniques, and barrier precautions, and found central line kits to be incomplete. By identifying a physician champion and nurse champion to shepherd the effort, partnering with Infection Control, and investigating every infection immediately to develop a countermeasure, the team was able to define and implement best practices to eliminate CLABs and teach those practices to physicians and nurses in the units. Dr. Rick Shannon and RN Joy Peters related that the effort reflected Magnet principles, in that it was:

- Data driven
- Implemented with RN involvement
- Created and relied on collegial MD/RN relationships
- Developed participative leadership
- Empowered nurses to manage their practices and exercise independent judgment

CUMULATIVE RESULTS

- **CLABS reduced from 49 to 5 (90% reduction).**
- **Deaths reduced from 19 to 1.**
- **ICU nurses empowered as the guardians of patient safety.**

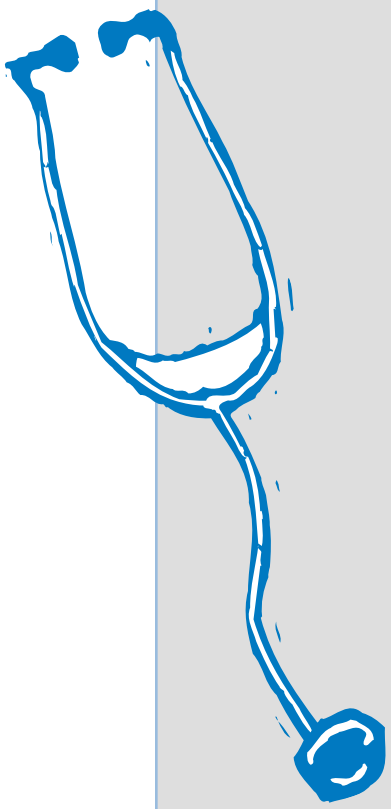
POINT OF CARE LESSON

Nursing a Clogged Pipeline: RNs Tackle Access Problems for Frantic Parents

The assessment of young children for developmental disabilities at the child development unit of Pittsburgh's children's hospital is speeding up, thanks to the efforts of nurses on the front lines. Patient flow was clogged: parents calling for assessments of their children were waiting days for calls to be returned, and months for initial appointments. Nurses observed a stalled intake process. Instead of answering incoming calls, the unit relied on voicemail to store parents' requests for assistance or appointments. They documented the time between receiving calls and scheduling appointments, mapping a convoluted intake process. They tested improvements, first among them a new plan to answer all phone calls live and schedule an assessment for any child under age three during the call. Thanks to the improvements, the unit is actually scheduling more appointments and providing more access to care. Completed intakes grew from 294 to 379.

OBSERVATIONS OF THE INTAKE PROCESS

- **No calls answered live**
- **Takes 1.8 days to return**
- **Intake process lasts 15 minutes**
- **Forms mailed out**
- **Form returned by mail**
- **Letter sent requesting scheduling of appointment**
- **Then call made for appointment**
- **Only 66% percent of intake calls resulted in returned forms and scheduled appointments, losing 1/3 of the children that needed services.**
- **Average of 3 months from intake call until child assessed**



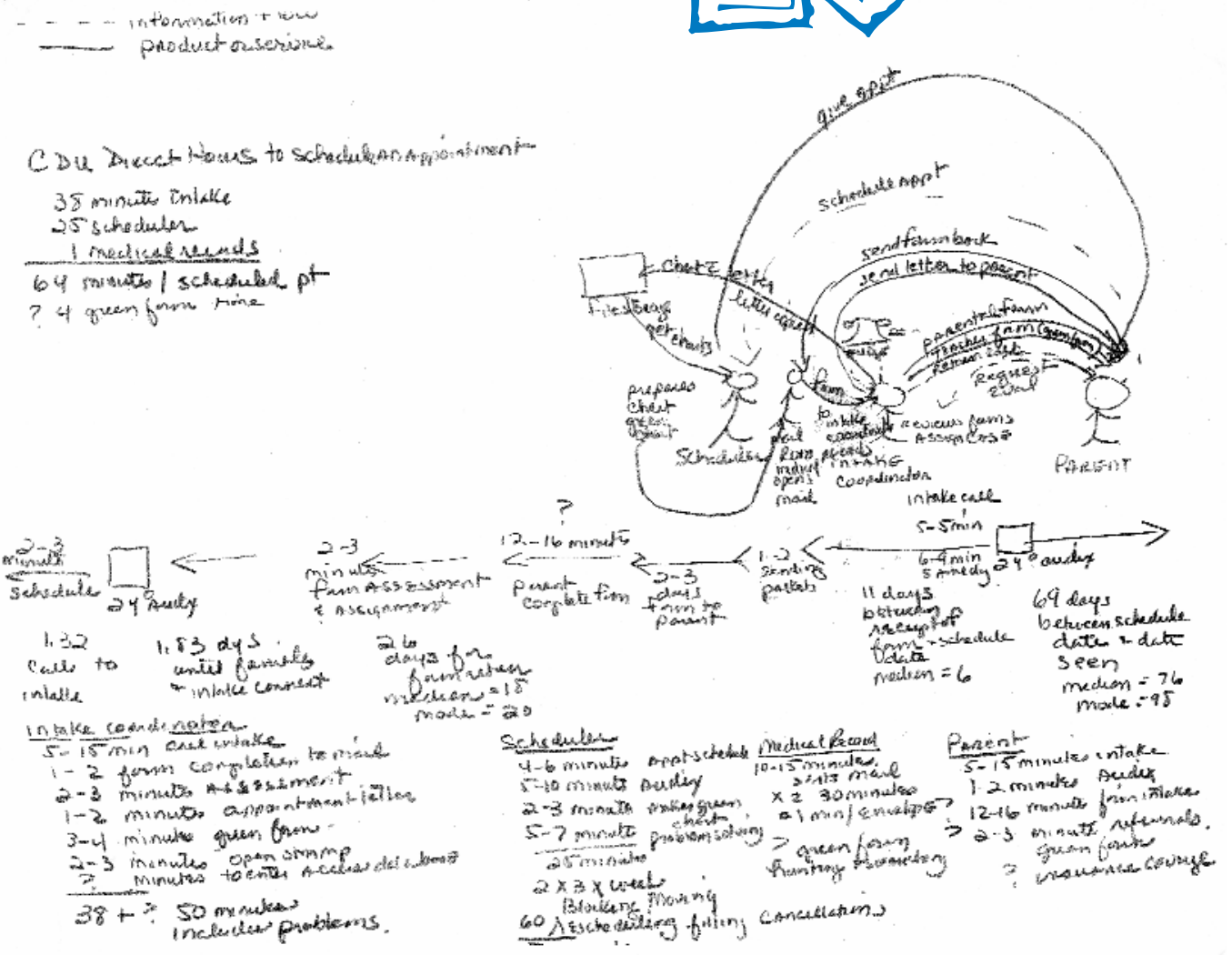
The assessment of young children

for developmental disabilities...is speeding up,

thanks to the efforts of nurses on the front lines.

DIAGRAM OF THE INTAKE PROCESS

Nurses drew what they observed, in order to see clearly obstacles and opportunities to overcome them.



BUILDING CLINICAL LEADERSHIP ON THE FRONT LINES OF CARE

Leadership in work redesign can be developed. Such leaders — change agents — are instrumental to improved patient outcomes, financial savings, improved morale, and even institutional satisfaction. They need only to be supported, with training in good techniques and on-the-job coaching or mentoring, and given the opportunity to share what they learn.

Nurturing New Leaders: The Nurse Navigators Fellowship

The Nurse Navigator Fellowship Program, co-sponsored by the Jewish Healthcare Foundation and Robert Wood Johnson Foundation, provides nurses interested in moving front-line care teams to the highest quality clinical care with skills and tools critical to measuring progress in the course of work. Health Careers Futures, committed to improving nurse retention in the region, launches the program in 2005, designed to empower nurses to improve care through measurement, building nurse leadership and improve nurse retention. The fellowship seeks to demystify data collection, showing Nurse Navigators how measurement can be incorporated into daily care processes to develop nurse leadership and improve patient health. Ideal Nurse Navigator candidates will be:

- passionate about safety, quality, and continuous learning
- team-centered, recognizing that the care of patients and solutions to work design problems require the combined efforts of the whole care team
- diligent, interested in measuring the outcomes of their care processes and sharing what they learn
- wanting to be leaders, capable of helping their care team redesign work at the point of care, applying data to determine best practices — including internal data and PHC4 data on healthcare quality and safety (infection, medical errors, etc.)
- eager to be problem-solvers, educated to improve quality and assure safety

Nurse Navigators will commit to participate in the year-long program to improve skills and generate success as change agents in healthcare quality and safety. They will learn to apply principles of the Perfecting Patient Care™ System, and will be taught a specially designed data curriculum. Continuing Education Credits will be awarded to successful participant. They must also have the full support of their host organizations, which will be reimbursed for participants' time.

Reinforcing Point-of-Care Teamwork: The Physician Champions Fellowship

Over the past two years, the Jewish Healthcare Foundation and the Pittsburgh Regional Healthcare Initiative (PRHI) has identified a number of individual physicians whose commitment to quality and safety has resulted in measurable differences in clinical outcomes. In 2005, the Foundation and PRHI — with co-sponsorship by the Pennsylvania Medical Society and Allegheny County Medical Society — will broaden the network of these individuals by identifying, supporting and rewarding Physician Champions devoted to exceptional quality and safety within their care units and their specialties. Candidates for the designation of Physician Champion will have demonstrated a desire and skill to create patient-focused, safe, error-free, best-practice, and cost-effective care. They commit to help their care teams — and nurse leaders — improve work design and produce measurable results to share with their peers.

RESOURCES AND READINGS

American Nurses Credentialing Center
Magnet Recognition Program
www.nursingworld.org/ancc/magnet

Pennsyvlania Healthcare Cost Containment Council (PHC4)
www.phc4.org

Health Careers Futures Toolkit
www.hcfutures.org/hctoolkit.asp

Pittsburgh Regional Healthcare Initiative
www.prhi.org

From Silence to Voice: What Nurses Know and Must Communicate to the Public, Bernice Buresh and Suzanne Gordon, Cornell University Press, 2002

Keeping Patients Safe: Transforming the Work Environment of Nurses, Institute of Medicine Committee on the Work Environment for Nurses and Patient Safety, National Academies Press, 2003

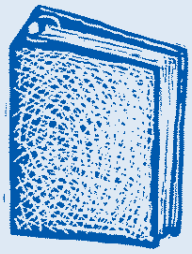
"Silence Kills: The Seven Crucial Conversations for Healthcare," VitalSmarts Industry Watch, by David Maxfield, Joseph Grenny, Ron McMillan, Kerry Patterson, and Al Switzler, 2005, conducted in partnership with the American Association of Critical Care Nurses

"The Bell Curve," The New Yorker, December 6, 2004

"Hospital takes a page from Toyota," The Washington Post, June 3, 2005

"Why Hospitals Don't Learn from Failures: Organizational and Psychological Dynamics that Inhibit System Change," by Anita L. Tucker and Amy C. Edmondson in California Management Review, (Volume 45, Number 2)

"Magnet Hospital Development in the Pittsburgh Region: A Status Update," Health Careers Futures Report, 2004



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