

Charting Nursing's Future

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Reports on Policies That
Can Transform Patient Care

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MAR.

Nursing's Prescription for a Reformed Health System: Use Exemplary Nursing Initiatives to Expand Access, Improve Quality, Reduce Costs, and Promote Prevention

Nursing initiatives that improve the quality of care and help people lead healthier lives can serve as a guide for Congress and the Obama administration as they seek to transform our current health care system. Nurses have created model programs in acute care, primary care, and public health settings that are improving the health status of individuals and communities. These initiatives are expanding access,

improving quality, promoting prevention, and driving down costs, and they have gained recognition from consumer groups, insurers, physicians, states, and the federal government. This brief profiles innovative programs that have been designed, led, or implemented by nurses; it draws out their policy implications; and it highlights the perspectives of leading health policy experts.

Figure 1 Savings Associated with the Program of All-Inclusive Care for the Elderly (PACE)

PACE provides frail seniors with comprehensive, community-based care in lieu of expensive nursing home placement.

Cost		Hospital Utilization Rates	
Enrollment in PACE Average annual Medicaid payment per enrollee in 2007	\$36,000	PACE Enrollees*	2.8 days per person per year in 2006
Private Nursing Home Care Average annual semiprivate room charge in FY 2008	\$69,715	Entire Medicare Population	2.5 days per person per year in 2006

*PACE enrollee hospital utilization rates are only slightly higher than those of the entire Medicare population, which is significantly younger and healthier. In 2005, 95% of U.S. seniors with health insurance were covered by Medicare.

Sources: National PACE Association; *The MetLife Market Survey of Nursing Home & Assisted Living Costs*, October 2008; Center for Medicare Advocacy, Inc., Quick Reference Medicare Facts & Statistics.

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The Value of Nursing



An enrollee in the Program of All-Inclusive Care for the Elderly (PACE) visits the Sacramento Zoo with a home health nurse. PACE provides seniors who are frail enough to qualify for nursing home care with an alternative: comprehensive care in the community.

PACE uses nurses and other health professionals to provide the full scope of integrated medical care and social services. The program spends significant resources on transportation to allow enrollees to reside in their homes and remain active.

PACE has demonstrated positive outcomes in health status, quality of life, prolonged survival, and reduced costs. Payment is per patient served, creating incentives for PACE to provide high-quality care that keeps patients out of acute care settings. States that offer PACE report that it is effective in both reducing costs and improving service utilization patterns (see Figure 1). PACE is a permanent benefit under Medicare and an optional state Medicaid service currently available in 31 states.

Nursing's Rx: Promising Policies to Advance Access, Quality, Prevention, and Cost Reduction

Policymakers agree that health reform should achieve these key goals: expand access to care, especially primary care; improve quality by delivering safe, evidence-based care; reduce costs for patients and for payers; and pro-

mote prevention through public health programs. Nursing initiatives embody promising policies that address this reform agenda.

How Policies Featured in This Brief Address the Reform Agenda

Reduce Costs

Offering Comprehensive Community-Based Care for the Elderly

The Program of All-Inclusive Care for the Elderly (PACE) demonstrates positive outcomes in health status, quality of life, prolonged survival, and reduced costs. (page 1)

Deploying Nurses to Reduce Costs

Nurse home visiting and other nursing initiatives are lowering costs in primary care, community, and acute care settings. (page 8)

Reducing Costly Hospital Readmissions with Transitional Care

This nurse-developed model uses the services of advanced practice nurses to plan hospital discharges and provide follow-up care. These services pay for themselves many times over through shortened hospital stays and reduced readmissions. (page 8)

Improve Quality

Improving Quality with Better Nurse Staffing

Studies show that improving the size and composition of nurse staffing reduces the prevalence of adverse hospital-acquired conditions and saves lives. (page 6)

Adopting Payment Policies Linked to Nurse Staffing

The decision by Medicare to stop reimbursing for preventable hospital-acquired conditions points to the need for appropriate nurse staffing. (page 6)

Transforming the Workplace to Support Quality

Programs that engage nurses in redesigning their work environment improve patient outcomes and lead to better retention of nursing staff. (page 6)

Engaging Nurses in the Development of Health Information Technologies

As the end users of most health information technologies, nurses must play a leading role in their development. (page 7)

Promote Prevention

Funding Population-Focused Nursing Interventions

Public health nursing expenditures produce outstanding results and significant financial returns. (page 5)

Investing in School Nursing

School nurses screen for common problems and provide vital access to health services. (page 5)

Expand Access

Using Nurse Practitioners to Expand Access to Care

Nurse practitioners have demonstrated their capacity to provide high-quality primary care in private medical practices and community-based health centers. (page 3)

Designating Nurse-Led Practices as Medical Homes

Nurse-led practices provide excellent care coordination in keeping with medical home initiatives. (page 3)

Reforming Regulations to Expand Access to Care

New laws that allow nurse practitioners to practice to the full extent of their abilities can expand access. (page 3)

Facilitating Innovative Nurse-Led Practice Models

More federal investment in nurse-managed health centers could make these safety net providers financially sustainable. Nurse practitioners are also providing convenient care at 1,200 retail clinics. (page 4)

Using RNs to Manage Chronic Conditions

Nurses are successfully coordinating care for patients with chronic conditions as members of multidisciplinary health care teams. (page 4)

Nursing Workforce 101

As of 2006, the United States employed 2.5 million registered nurses (RNs) and 750,000 licensed practical nurses. Nurses differ in their preparation and the scope of their practice. Nearly 50 percent of RNs have bachelor's, master's, or doctoral degrees, and the number of RNs graduating with one of these degrees is growing.

Licensed Practical Nurses (LPNs)

LPNs receive one year of education and work under the direction of an RN or, in some cases, a physician.

Registered Nurses (RNs)

RNs study for a minimum of two years after high school, almost all study longer, and a growing number of them complete bachelor's degrees. They learn to assess, plan, and intervene to promote health, prevent disease, and help patients cope with illness or chronic conditions.

Community Health Nurses (CHNs)

CHNs are RNs who provide personal health care in community settings. These include private and government-run clinics.

Public Health Nurses (PHNs)

PHNs are RNs with additional knowledge of public health, which they typically acquire in a bachelor's or master's degree program. PHNs promote population health through disease prevention, health promotion, and emergency response efforts.

Advanced Practice Registered Nurses (APRNs)

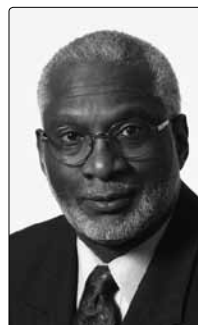
About 300,000 nurses are prepared for advanced practice at the master's and, increasingly, at the doctoral level. APRNs are certified. They include certified registered nurse anesthetists, certified nurse midwives, nurse practitioners, and clinical nurse specialists in areas such as oncology, orthopedics, gerontology, and mental health.

Nurse Practitioners (NPs)

About 125,000 APRNs are NPs who provide primary or acute care services in a variety of settings. All states authorize NPs to prescribe medicine but may impose some limits. The degree to which NPs may practice independently of physician oversight is determined by each state's laws and regulations governing nursing.

“Nurses have always been ahead of their time in their focus on prevention and health promotion. As we move toward a more balanced health system with more focus and support for health promotion and disease prevention, the role of nurses will be more significant than ever before.”

David Satcher, MD, director, Satcher Health Leadership Institute, Morehouse School of Medicine, and former U.S. surgeon general



How Nursing Expands Access to Care

Nurse Practitioners (NPs) as Primary Care Providers

As America extends coverage to more and more citizens, the question becomes, who will provide primary care? In private medical practices and community and nurse-managed health centers, NPs have demonstrated their capacity to take on this role. NPs are educated to provide the full scope of primary care services, and studies show that they can do so on a par with physicians.

In the mid-1990s, Mary O. Mundinger, DrPH, dean, Columbia University School of Nursing, and colleagues conducted the first randomized trial in the United States that compared primary care delivery by NPs and physicians when both were given the same authority, responsibilities, productivity and administrative requirements, and patient population. The study, published in the *Journal of the American Medical Association*, found that health outcomes and service utilization were comparable for patients of both providers.

“Having fewer primary care doctors may be a blessing in disguise if we expand the number of nurse practitioners, accessible clinics, and school nurses who can do preventive care, and then move people directly to a specialist when needed.”

Norman J. Ornstein, PhD, resident scholar, American Enterprise Institute

Reforming Laws and Regulations to Expand Access to Care

Despite the urgent need to expand access to primary care, a number of barriers prevent the full deployment of NPs. While laws in 23 states permit NPs to practice independently, 20 states require them to practice in collaboration with a physician, and 7 mandate physician supervision. All states permit NPs to prescribe medicines, but many impose limits on this authority. Meanwhile, seemingly contradictory federal rules further frustrate NPs' ability to practice.

“Under federal Medicare law, we can certify people for admission to long-term care, but not for home health or hospice care,” says Jan Towers, PhD, NP-C, CRNP, FAANP, director of health policy at the American Academy of Nurse Practitioners. “We can do an admitting physical exam in a hospital and in our practices, but we can't receive Medicare reimbursement for the same thing in long-term care settings.”



Like legal and regulatory barriers, reimbursement policies also contribute to the unwillingness of some insurers to credential NPs as primary care providers.

continued on page 4

The Nurse Practitioner (NP) Workforce

- NPs are the fastest growing group of primary care professionals in the country.
- NPs provide more primary care visits than any other Medicare Part B fee-for-service provider.
- More than 125,000 are practicing, and about 6,000 new NPs are added each year.
- 96.5% prescribe medications. These include controlled substances in all but three states (AL, FL, HI).
- 39% have hospital admitting privileges.
- 20% practice in rural or frontier settings.
- The average full-time income of an NP is \$92,110, about half that of a primary care physician.

Sources: American Academy of Nurse Practitioners (AANP) 2007, AANP 2008 salary survey, U.S. Government Accountability Office testimony before Congress.

Nursing and the Medical Home

Care coordination and patient education exemplify the primary care provided by advanced practice registered nurses. These facets of care are central to the medical home model that is gaining traction in policy circles. States, insurers, and health systems have adopted this moniker to describe a variety of initiatives aimed at improving primary care by targeting reimbursements to previously undervalued services such as after-hours access, care coordination, and patient education. While the details differ, all medical home initiatives aim to improve health outcomes and reduce

the costs associated with chronic conditions, which account for 75 percent of all medical care spending in the United States.

In 2006, Congress created the Medicare Medical Home Demonstration Project “to provide targeted, accessible, continuous and coordinated, family-centered care” to individuals with multiple chronic conditions. The law establishes financial incentives for participation and specifies that board-certified physicians must lead medical homes.

Proponents of this initiative hope it will spur more physicians to choose

careers in primary care despite the higher incomes afforded specialists. Others are skeptical that this project will achieve its goals and recommend that payers designate nurse-led practices as medical homes.

A 2008 report published by the Association of American Medical Colleges predicts an impending physician shortage and an increased need for specialists to serve the elderly. Among its findings: “Future demand for physicians could be significantly reduced if physician assistants and nurse practitioners play a larger role in patient care.”

“NP practices face unnecessary and arbitrary barriers to financial stability that similar physician-managed practices do not,” says Tine Hansen-Turton, executive director of the National Nursing Centers Consortium. She has expressed concern that “a failure to address these constraints on NP practice threatens the long-term sustainability of key components of the health care safety net such as nurse-managed health centers.”

In Pennsylvania, legislation to allow nurses and other licensed health care providers to practice to the fullest extent of their education and skills is paving the way for increased access to care.

Nurse-Managed Health Centers and Retail Clinics

Across the nation, community health centers (CHCs) rely on the full range of primary care providers—physicians, NPs, and physician assistants—to provide high-quality primary care to 18 million Americans with limited financial resources. CHCs have long enjoyed bipartisan support and are credited with saving government an estimated \$10 billion a year or more by helping patients avoid emergency room visits and make better use of preventive services.

The Value of Nursing

A nurse practitioner and a licensed clinical social worker develop a care plan with a patient at 11th Street Family Health Services, an NMHC affiliated with Drexel University. At 11th Street, nurses realized early on that compliance with a diabetes regimen was daunting for patients battling depression. They responded by

integrating behavioral health into all clinical encounters, forming a support group, and offering stress reduction classes in yoga and meditation. Likewise, the absence of healthy food and opportunities for exercise in the community led 11th Street to plant a community garden and offer cooking and exercise classes. The center also reaches beyond its four walls into the community of lower north Philadelphia with home visiting services through the Nurse-Family Partnership (see page 8 and *Charting Nursing’s Future* 7). 11th Street’s transdisciplinary model of integrated care offers a unique blend of population and personal health services.



Photo: Kelly & Massa Photography

Since 1977, nurses have established more than 250 nurse-managed health centers (NMHCs). These serve as primary care homes in communities where disparities are most acute, and many showcase innovative models of care (see “The Value of Nursing” below).

Despite their success in treating patients and improving community health, many NMHCs face financial stresses. Of the 70 nurse-managed health centers established by schools of nursing with federal Health Resources and Services Administration funds, 39 percent have closed for financial reasons. Their affiliation with academic institutions makes NMHCs ineligible for federal programmatic funding available to other CHCs, and their nurse leadership disqualifies them from inclusion in the new Centers for Medicare and Medicaid Services medical home pilot (see “Nursing and the Medical Home,” page 3).

While governments debate where and how NPs may practice, market forces are driving dramatic growth in a health care model predicated on this workforce. In 2000, the first in-store clinics were born, and today more than 1,200 retail clinics are using NPs to provide convenient, affordable care

for common acute problems. NPs are typically salaried and earn about half the income of a primary care physician, making retail clinics affordable access points to care for those with and without insurance. Retail clinic practitioners have a record of strict adherence to evidence-based protocols, and they report that 90 percent of their patients express satisfaction with the quality of care they receive. (A future issue of *Charting Nursing’s Future* will profile this care model.)

Using RNs to Address Chronic Conditions

In a recent article in *Health Affairs*, Thomas Bodenheimer and colleagues at the University of California, San Francisco ask whether the U.S. health care workforce can manage the growing burden of chronic disease, which currently accounts for three-quarters of all health care expenditures. Their reply? “The answer is ‘no’—not as currently constituted.” To remedy this situation, they propose the use of multidisciplinary teams in primary care and cite evidence that nursing interventions improve care and reduce hospitalizations and emergency room visits for patients with chronic conditions.

Community Health Centers, Inc., in Connecticut employs multidisciplinary teams and the respected Wagner model of chronic care delivery. Its primary care providers—physicians and NPs—work in tandem with medical assistants and RNs. The RNs actively help manage chronic conditions through patient education, goal setting for self-management, screening and preventative measures such as lab tests and immunizations, and follow-up nursing visits. They also lead the team’s use of electronic health records.

...**For more information**.....
• To learn more about nursing innovations that are transforming health care policy and practice, visit the American Academy of Nursing at:
www.aannet.org
(click on “Raise the Voice”)

How Nursing Promotes Population Health

Many policy experts believe that supporting the public health system at levels that recognize its central role in promoting health is the most efficient and cost-effective way to improve the nation's health status. They point to the dramatic gain in life expectancy witnessed in the 20th century, much of it attributable to groundbreaking public health achievements taken for granted today: clean, fluoridated drinking water; safer, smoke-free workplaces; and readily available vaccines, to name just a few.

Public health programs bring sizable returns on investment, yet, according to a study by researchers at the Altarum Institute, only 2.8 percent of all national health expenditures go toward public health. Nurse home visiting programs for infants and new mothers and tuberculosis treatment programs that employ nurses have both demonstrated dramatic and lasting impacts on the health and

well-being of participants, and some pay for themselves in the process (see page 8 and *Charting Nursing's Future 7*).

Public health nursing also has an outstanding track record in its ability to protect the public from communicable diseases and the health impacts of man-made and natural disasters.

Nurses make up one-quarter of the professionals in the public health workforce, yet their numbers relative to population declined dramatically in recent decades, and many are near retirement. Additionally, fee-for-service payments to public health clinics and categorical funding that directs dollars from one pressing crisis to the next make it difficult to sustain the programs that once typified public health nursing.

"The public health nurse who walked the neighborhood and figured out that the teen gaining weight was pregnant, who found unvaccinated

kids in the line at the grocery store, is becoming a thing of the past," laments Kristine Gebbie, RN, PhD, FAAN, dean of the Hunter College School of Nursing. "To do that you need a reliable funding source that salaries a staff."

"We need an office of public health nursing with its own budgeted authority at the Centers for Disease Control and Prevention.



It should recognize the critical importance of public health nursing, the largest segment of the public health workforce, and could exert leadership to support education, training, and translational research in this area."

Paul Jarris, MD, MBA, executive director, Association of State and Territorial Health Officials

School Nurses: An Underutilized Resource for Improving Health

According to the National Association of School Nurses, many children rely on school nurses for their health services, yet fewer than half of U.S. public schools have a full-time registered nurse.

Today's school nurses do far more than attend to minor injuries. They typically screen for health problems that affect learning, administer medications for physical and behavioral conditions, provide health counseling and education on issues such as smoking and obesity, conduct surveillance for communicable diseases, ensure or provide immunizations, engage in emergency preparedness

activities, and enable students with disabilities to be educated with their peers.

School nursing also functions as a gateway to other services, such as the State Children's Health Insurance Program. School nurses frequently connect families to primary care and behavioral health services, which may even be provided on-site at school-based health clinics staffed by nurse practitioners. The school clinic can also be a stigma-free point of contact for students in need of counseling, drug treatment, and other types of care.

Studies show that the availability of a school nurse correlates with better school attendance, which in turn predicts better academic performance.

The Value of Nursing



A school nurse administers a breathing treatment to a child with asthma. The prevalence of chronic conditions is increasing among schoolchildren. These may require routine monitoring, treatments, or medications during the school day. According to the National Association of School Nurses, the goal of school nursing services is to keep children healthy and ready to learn.

Photo: Steve Miller, National Association of School Nurses



"Schools are about academic performance, and that performance is tied to the health of students. It is the NEA's belief that a nurse in every school is a requirement for optimum academic success."

Jerald Newberry, executive director, National Education Association Health Information Network

How Nursing Advances Quality Improvement

Studies and Payment Policies Link Nursing to Patient Outcomes

In 2000, the Institute of Medicine (IOM) issued a report on patient safety. It concluded that “tens of thousands of Americans die each year from errors in their care, and hundreds of thousands suffer or barely escape from nonfatal injuries that a truly high-quality care system would largely prevent.”

A multitude of studies have reported an association between the size and composition of hospital nurse staffing and patient outcomes such as nosocomial infection, sepsis, pneumonia, falls, urinary tract infections, upper gastrointestinal bleeding, medication errors, pressure ulcers, and longer-than-expected hospital stays. As the IOM noted in a subsequent report on quality, doctors, nurses, and others strive mightily to prevent these conditions from occurring, yet a poorly designed system sets them up for failure.

The Centers for Medicaid and Medicare Services (CMS) recently eliminated Medicare payment for selected hospital-acquired conditions, which are considered reasonably preventable. These so-called never events contribute to the high cost of care, and four of them are linked to the size and composition of the nursing workforce (see Figure 2).

A study by Jack Needleman, PhD, associate professor, Department of Health Services, School of Public Health at the University of California, Los Angeles, and colleagues examines the impact of nurse staffing on reducing adverse outcomes, deaths, and patient stays in hospitals. It concludes that raising the number of licensed nursing hours and the proportion of those hours assigned to RNs would result in significant reductions for all three measures (see *Charting Nursing’s Future* 3). Furthermore, the study’s authors assert that “greater use of RNs in preference to LPNs appears to pay for itself” by reducing adverse outcomes and the number of days patients spend in the hospital.

One of the outcomes the researchers tracked, urinary tract infections (UTIs), is among the eight preventable conditions identified by CMS. The study estimates that UTIs would be decreased dramatically if nurse staffing remained the same but the proportion of RNs in all U.S. hospitals rose to equal that in the best-staffed or top quartile of hospitals studied. A recent study by researchers at Harvard suggests that higher nurse-to-patient ratios also result in greater patient satisfaction with their care.

Research also suggests that inadequate nurse staffing increases the risk of dying for surgical patients and leads to high rates of job dissatisfaction among hospital nurses. This is the conclusion of Linda H. Aiken, PhD, FRCN, FAAN, RN, Claire M. Fagin Leadership Professor in Nursing, professor of sociology, and director, Center for Health Outcomes and Policy Research at the University of Pennsylvania, and colleagues. They found that in hospitals with high patient-to-nurse ratios, surgical patients were 7 percent more likely to die within 30 days or to die from preventable complications for each additional patient added to a nurse’s workload. Each additional patient also correlated with increased job dissatisfaction and nurse burnout. These realities have serious implications, given an anticipated shortage of 285,000 RNs by 2020.

Transforming the Workplace to Support Quality

According to a time and motion study by Ann Hendrich, RN, MSN, FAAN, vice president, Clinical Excellence Operations, Ascension Health; and Marilyn Chow, DNSc, RN, FAAN, vice president, Patient Care Services,

“The nursing shortage is severe and getting worse, and it greatly impacts quality. This means mitigating the absurd workload for nurses and not trying to reduce costs by cutting nurse positions.”

Carolyn Clancy, MD, director, Agency for Healthcare Research and Quality



Figure 2
Hospital-Acquired Conditions Associated with Inadequate Nursing Care

As of October 2008, the Centers for Medicare and Medicaid Services eliminated Medicare payments for the following preventable hospital-acquired conditions in an effort to reduce costs for Medicare’s prospective-payment system and improve the quality of care. The conditions have been listed by the National Quality Forum as patient-outcome measures associated with the adequacy of nursing care.

Condition	Number of Cases	Cost per Hospitalization
Pressure Ulcers	257,412 (stages III and IV)	\$43,180
Preventable Injuries (e.g., fractures)	193,566	\$33,894
Catheter-Associated Urinary Tract Infections	12,185	\$44,043
Vascular Catheter- Associated Infections	29,536	\$103,027

Source: *Federal Register*, Vol. 73, No. 161, Tuesday, August 19, 2008, Rules and Regulations.

Kaiser Permanente; and colleagues, nurses in hospitals spend only one-fifth of their time on patient care. They cite the need to “hunt and gather” supplies, excessive paperwork, and outmoded systems for communicating with other members of the care team as obstacles that impede their ability to spend time with their patients. In addition, cost containment policies that reduce the length of hospital stays have substantially increased nursing workloads because patients are sicker on average and cycle through hospitals more rapidly. As a result, hospitals report high levels of nurse burn out and staff turnover.

In response, a number of organizations and initiatives have emerged that aim to improve quality in hospitals and other care settings by transforming the work environment. Their accomplishments demonstrate that engaging frontline nursing staff and senior nurse leaders in quality improvement efforts decreases costly hospital errors and improves health outcomes by increasing the time nurses spend with patients. This in turn helps institutions recruit and retain nurses.

The Magnet Recognition Program run by the American Nurses Credentialing Center encourages hospitals and other providers to become magnets for nurses by improving the nursing work environment and adopting best nursing practices. More than

300 institutions have attained Magnet status, including 7 out of 10 hospitals listed on *U.S. News and World Report’s* 2008 Best Hospitals Honor Roll.

Transforming Care at the Bedside (TCAB), a program of the Robert Wood Johnson Foundation and the Institute for Healthcare Improvement, has pioneered nurse-led innovations in 10 hospital medical-surgical units and is now sharing lessons learned with more than 200 additional hospitals that have adopted the TCAB process (see “The Value of Nursing,” this page, and visit www.rwjf.org and type “TCAB” in the search engine).

Nursing’s Contribution to Health Information Technologies (HITs)

There is broad agreement that HITs are an essential ingredient in the health system of the future, as evidenced by the \$19 billion budgeted for HITs in the recent federal stimulus bill. Research shows that electronic health records improve the quality and safety of care. They allow patients and their providers access to critical health information; they integrate medical, pharmacy, and other patient information into one cohesive record; and they facilitate telehealth and other innovative forms of care delivery.

“In order to move health care into the future, we must replace the clipboard with the keyboard,” says Lillee Gelinis, RN, MSN, FAAN, vice president and chief nursing officer, VHA

Inc., an alliance of more than 22,000 health care organizations. “Because nurses are integral to health care, they must be integral to improvements in that process. Their knowledge of patient care, interdisciplinary communication, and care transitions equips them to act as ambassadors between patients and the health system. Excluding them from the development and design of HITs will sabotage successful implementation.”

Gelinis served on the American Health Information Community (AHIC), a federal advisory body chartered in 2005 to make recommendations on how to accelerate the development and adoption of HITs. Several of AHIC’s recommendations were incorporated in the economic stimulus bill that became law in February. (A 2009 issue of *Charting Nursing’s Future* will examine the roles of nurses in designing, implementing, and training clinicians to use HITs.)



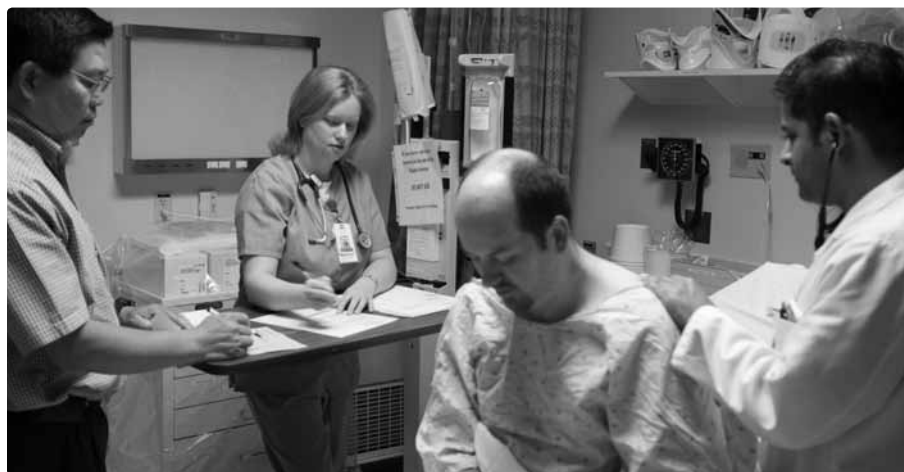
“Nurses are not only integral to improving quality, they are established leaders in this area.”

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

The Value of Nursing

Daily rounds at Seton Northwest Hospital in Austin, Texas, now include a nurse along with other members of the interdisciplinary care team. Seton was 1 of 10 hospitals selected to participate in Transforming Care at the Bedside (TCAB). Patient care has improved and nurses enjoy better communication with physicians since the TCAB team determined that nurses and other members of the care team should accompany physicians during their rounds.

Unlike many other quality improvement initiatives, TCAB engages staff in the process of introducing ideas and implementing solutions. The benefits for Seton included improved nurse retention. Voluntary turnover rates on the TCAB unit were cut in half one year into the program.



Savings Across Settings and Throughout the Lifespan

Research shows that increasing the availability and quality of nursing can lower costs in primary care, community, and acute care settings. The Obama administration acknowledged this when it released its first budget, which calls for more than \$8.5 billion over the next 10 years for nurse home visiting programs for low-income mothers and babies. The best-known of these, the Nurse-Family Partnership, yields savings worth more than twice its cost by reducing the incidence of criminal behavior, substance abuse, poor educational performance, teen pregnancy, teen suicide attempts, child abuse or neglect, and domestic violence (see *Charting Nursing's Future* 7).

Impressive cost savings can also be accrued in the realm of primary care. A seminal 1986 report by the Congressional Office of Technology Assessment found that nurse practitioners working in physician practices could decrease the cost per patient visit by as much as one-third.

Reducing the use of acute hospital care can also save substantial sums. Home health nursing interventions help patients avoid hospitalization. Then, when patients are hospitalized, providing appropriate, evidence-based nursing care allows early intervention to prevent costly complications that lengthen hospital stays. Finally, transitional care by nurses following hospital discharge reduces the frequency of costly readmissions. In 2007, the Medicare Payment Advisory Commission estimated that nearly 18 percent of hospitalized Medicare beneficiaries are readmitted within 30 days, at a cost of \$15 billion a year.

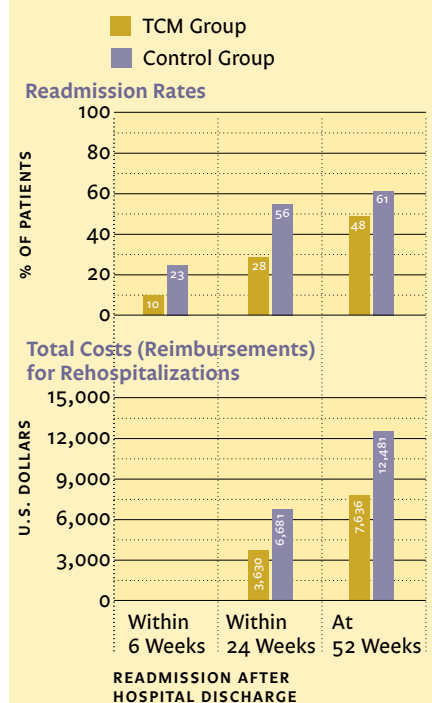
The Transitional Care Model (TCM)

In the 1980s, a team of researchers at the University of Pennsylvania led by Dorothy Brooten, PhD, RN, FAAN, now professor at Florida International University, developed and began testing a new model of care designed to cut health care costs by smoothing the transition between acute care and other settings. Cost controls instituted at that time were reducing the length of hospital stays, but post-discharge complications often led to rehospitalization and undermined the cost effectiveness of earlier discharge. The Transitional Care Model (TCM), as it has come to be known, uses advanced practice registered nurse (APRN) specialists to design comprehensive discharge plans that include regular phone contact and home visits while patients convalesce.

TCM has been tested with high-risk, high-cost, high-volume patients across the lifespan and shows impressive outcomes. The first randomized clinical trial provided follow-up care by APRN specialists in perinatal or neonatal nursing to very-low-birth-weight infants. They were released from the hospital an average of 11 days earlier and achieved equivalent health outcomes at a net savings of \$18,560 per patient. Later trials involving women with high-risk pregnancies prolonged gestation and reduced costs for infants who were born prematurely or at term. The intervention group had significantly fewer hospital readmissions, fewer low-birth-weight infants (8.3 percent versus 29 percent), and 39 percent lower total hospital charges than the control group. No women in the intervention group gave birth prior to 26 weeks, while the control group counted five such births, at an average cost of \$949,594 each.

In recent years, Mary D. Naylor, PhD, RN, FAAN, Marian S. Ware Professor in Gerontology and director, New Courtland Center for Transitions and Health at the University of Pennsylvania School of Nursing, and her multidisciplinary team have applied TCM with chronically ill elders being treated for common medical and surgical conditions. Three randomized controlled clinical trials that tested TCM with this population resulted in significant cost savings (see Figure 3). In Pennsylvania, some insurers have begun paying for care delivered through this model. Proponents of TCM are calling for the reimbursement of evidence-based transitional care for at-risk, chronically ill older adults.

Figure 3
Impact of the Transitional Care Model (TCM) on Hospital Readmission Rates and Total Costs



Source: Transitional Care Model Web site: <http://transitionalcare.info/ToolQual-1801.html>.

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