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It seems like the only constant in health care is change. At UPMC, nurses in all roles — bedside caregivers, specialized practitioners, and leadership — embrace change and come together to continually transform the way we deliver care for our patients and members. We lead strategic priorities for our system, drive practices that achieve organizational excellence, and target initiatives that enhance patient and employee engagement.

Our nurses are well-positioned to lead change and advance patient care, in part, because we challenge them to practice to the full extent of their education and license. We encourage nurses to engage in lifelong learning, participate in leadership development opportunities, and mentor their colleagues. Generous tuition benefits and defined career pathways enable and encourage personal development.

UPMC nurses are committed to their profession and are poised to lead interprofessional efforts within our organization, as well as within our region, state, and nationally. Through partnerships with physicians, support staff, and other members of the health care team, our nurses have used innovative thinking to expand diabetes services in the communities we serve, decrease hospital readmission rates among our Senior Communities residents, reduce alarm fatigue and ICU delirium cases, develop care attendant protocols that keep our patients safe, and much, much more.

Every day, UPMC nurses make a difference in the lives of our patients, our community, and each other. I am pleased to share with you some of our proudest accomplishments.

With much pride and appreciation,

Holly Lorenz, MSN, RN
Chief Nurse Executive, UPMC Center for Nursing Excellence and Innovation
UPMC MISSION
UPMC’s mission is to serve our community by providing outstanding patient care and to shape tomorrow’s health system through clinical and technological innovation, research, and education.

UPMC VISION
UPMC will lead the transformation of health care. The UPMC model will be nationally recognized for redefining health care by:

• Putting our patients, health plan members, employees, and community at the center of everything we do and creating a model that ensures that every patient gets the right care, in the right way, at the right time, every time.
• Harnessing our integrated capabilities to deliver both superb state-of-the-art care to our patients and high value to our stakeholders.
• Employing our partnership with the University of Pittsburgh to advance the understanding of disease, its prevention, treatment, and cure.
• Serving the underserved and disadvantaged, and advancing excellence and innovation throughout health care.
• Fueling the development of new businesses globally that are consistent with our mission as an ongoing catalyst and driver of economic development for the benefit of the residents of the region.

UPMC NURSING VISION
Our vision for UPMC Nursing is to create the best patient experience, nationally and internationally, through the selection, development, retention, and reward of the highest-performing nurses, while creating systems and programs that create consistency and excellence in patient care.

This vision guides and supports our vocation, encouraging all UPMC nurses toward a common goal. It supports the UPMC Nursing image of tomorrow, and dovetails with the mission, vision, and values of UPMC as a whole.
TRANSFORMATIONAL LEADERSHIP
A BSN Degree Leads to Better Care, Income, and Opportunity

The 2010 Institute of Medicine (IOM) Report, *The Future of Nursing*, calls for an increase in the number of BSN-educated nurses in the workforce. The goal is for 80 percent of all nurses nationwide to have earned a bachelor’s degree in nursing by 2020. This figure contrasts with the approximately 50 percent who have BSNs today.

Research supports the IOM recommendation, linking a greater proportion of BSN-educated nurses with improved patient outcomes in hospital-based studies. For example, in a study reported in the journal *Medical Care*, a greater proportion of BSN-level nurses correlates with reduced hospital mortality, fewer readmissions, shorter lengths of stay, and decreased total hospitalization cost. Researchers concluded that increasing the proportion of BSN-educated nurses to 80 percent must be done as part of a combined approach that also takes patient-level staffing into consideration.

**UPMC’s Investment in Nurses**

At UPMC, nurses are encouraged to advance to the BSN level. UPMC offers tuition reimbursement to registered nurses who work part-time or full-time while pursuing their BSN. UPMC is uniquely positioned in a region with multiple diploma schools that graduate a significant number of RNs who can then go on for further education.

At this time at UPMC, both RN and BSN graduates are eligible for entry-level hire. The pay for the two types of candidates, however, differs significantly. UPMC leads the region in offering a BSN differential; entry-level, BSN-trained nurses earn more per hour than their RN counterparts.

**Patient Care and Leadership**

At UPMC, an investment in our nurses is also an investment in the patient experience. Nurses with more education are more prepared to address complex patient needs along the continuum of care. Furthermore, the BSN is the gateway to nursing leadership and the opportunity to have a far-reaching impact on patient care. All nursing leaders hired at UPMC have a BSN or higher degree.

**BSN Nurses Have More Earning Power**

Over the course of a career, nurses with a BSN receive significantly more compensation, as reflected by lifetime earnings, retirement, and insurance benefits:

- A senior professional staff nurse with a BSN can earn $639,714 more than a staff nurse.
- A professional staff nurse with a BSN can earn $379,021 more than a staff nurse without.


Aimee Skritch, MSN, BSN, discusses the value of continued education at UPMC.com/NursingVideos.
The Value of Your BSN

The health care landscape continues to evolve, and so do the needs of our patients. The ability to meet these demands hinges on having well-qualified and highly-educated nurses. As a leader in the health care industry, UPMC is committed to working collaboratively to create the best-in-class nursing workforce of tomorrow.

UPMC LEADS THE REGION IN BSN DIFFERENTIAL COMPENSATION*

$1.75 more per hour at UPMC urban & community hospitals. $1.25 more per hour at UPMC regional hospitals. This may not be applicable to nurses covered by a collective bargaining agreement.

ADDITIONAL EARNING POTENTIAL OVER THE CAREER SPAN OF A BSN PREPARED NURSE
(Includes lifetime earnings, lifetime retirement, and lifetime insurance benefits)

- SR. STAFF NURSE WITH BSN
  $639,714 MORE THAN STAFF NURSE

- STAFF NURSE WITH BSN
  $379,021 MORE THAN STAFF NURSE

- STAFF NURSE

**AN INVESTMENT IN YOUR EDUCATION**
Eligible employees may receive tuition assistance up to $5,000 per academic year.

**AN INVESTMENT IN THE PATIENT EXPERIENCE**
Research supports that lower patient mortality rates, fewer medication errors, and **positive patient outcomes** are all linked to nurses prepared at the BSN level or higher.

**AN INVESTMENT IN YOUR SKILL SET**
The education received through a BSN program prepares nurses to address complex patient needs along the continuum of care.

**AN INVESTMENT IN YOUR CAREER**
Nursing leaders hired at UPMC are BSN prepared or greater. Last year, **88%** of those hired were internal promotions.

*SR. STAFF NURSE WITH BSN $639,714 MORE THAN STAFF NURSE
STAFF NURSE WITH BSN $379,021 MORE THAN STAFF NURSE
STAFF NURSE*
Well-prepared leaders are able to drive change in an engaging and positive manner, and they do so by drawing on a repertoire of skills, insight, and information that drives outcomes. At UPMC, leaders, including nurse leaders, have opportunities to develop by participating in a number of formal programs. While UPMC is not alone in offering formal education programs for nursing advancement, the organization offers many tiers of leadership opportunities for nurses and is known for producing strong nurse leaders.

UPMC is unique for having a diversity of opportunity. Dream it and the job exists somewhere in the system. Most organizations can’t say that.

**Preparing Tomorrow’s Leaders**

Invested in “growing” employees, UPMC offers a range of programs that provide advancement opportunities. For nurses, training programs include the following:

- **The Leadership Development Intensive** is an invitation-only program offered to leaders with executive-leadership potential, including but not limited to nurses. Every two years, the program is offered to high-potential, high-performing directors (or equivalent).

  After completing a rigorous application process, participants immerse themselves in sessions offered over a four-month period. In the past six years, the program has produced 226 alumni, and 77 percent remain employed at UPMC.

- **Nurse Manager Leadership Development** is a program for which only nurses may apply. By FY16, Nurse Manager Leadership Development graduated 83 leaders; attendance grows each year. The five-day agenda is designed to benefit new or aspiring leaders, such as new unit directors and clinicians. Topics include: how to be a change agent, recognizing the power of influence, how to lead quality, cultural competency, and financial monitoring.

- **UPMC offers nurses multiple fellowship opportunities.** For example, since 2011, 240 nurses have participated in the Operating Room (OR) Fellowship. One hundred and eighty-seven participants remain with UPMC.

  Another popular fellowship is the Obstetrical and Neonatal Nursing Fellowship at Magee-Womens Hospital of UPMC (see page 11). Three new fellowships focus on behavioral health, care management, and clinical operations. All programs are designed to provide new skills and insights that prepare nurses for future career opportunities.

**UPMC NURSES ARE PROMOTED INTERNALLY**

As of May 2016, 133 nurse leaders were hired across the organization. Of these, 111 were promoted internally. In addition, three UPMC nurses were promoted to the position of chief nursing officer during this time.

The annual Nursing Talent Round Up provides a networking and career mentoring opportunity. Learn more at UPMC.com/NursingVideos.
STRUCTURAL EMPOWERMENT
Nurses Speak Up, Share in Decision-Making

Shared governance is a nationwide trend in health care. It means that nursing leaders engage with frontline staff, typically via a council system, to make decisions. This model empowers and engages nurses, who are able to participate in the decision-making process rather than react to top-down decisions.

Shared governance and leadership councils exist throughout the UPMC health system both at the local hospital level as well as a robust system council structure. Some comprise nurses only. Many are interdisciplinary, with representation from Nursing, Pharmacy, Quality, Laboratories, and other specialties and support staff as warranted by focus. Typically, each council is co-chaired by two front-line staff members.

**Shared Governance at Children’s Hospital**

At Children’s Hospital of Pittsburgh of UPMC, seven councils are currently in place. They provide venues where staff can bring up ideas, suggest new practices, and drive higher levels of excellence in patient care.

One example is the Nurse Advisory Council, which focuses on staff scheduling. The council addresses how staffing can be managed as the result of change, such as a closed unit. In addition, the council made it possible for nurses to self-schedule.

Another example is the Quality and Safety Council, which focuses on reducing central line infections, especially in critical care. Their achievements are outlined to the right. The hospital received a Fine Award for Teamwork and Excellence in Health Care from the Jewish Healthcare Foundation for this work.

Shared governance is shared leadership among the chief nursing officer and all staff and leaders to ensure nurses participate in decision-making and are fully empowered at the bedside.

All nurses, not only those who participate in the shared governance councils, are encouraged to use their voices. At UPMC, they will have full support if they do so. When caring for children in particular — patients who cannot advocate for themselves — nurses must observe little things, pay attention to irregularities reported by family members, and heed their own nursing knowledge and instincts.

It’s important to empower frontline nurses so they can become the best advocates for patients and families. The shared governance model enhances nurses’ focus on safety and service and, above all, encourages them to speak up.

**Council Combats Central Line Infections**

Through the Quality and Safety Council, the pediatric intensive care unit has been participating in a national collaborative to reduce bloodstream infections associated with central lines. The following statistics demonstrate a steady drop of infections per 1,000 line days/year during the intervening fiscal years:
Supporting Shared Governance Through Council Engagement

UPMC Nursing and the Center for Nursing Excellence and Innovation strongly support shared governance as an opportunity for nurses at every level to be directly involved in governing patient care practices. Shared governance in nursing involves structure, process, and the ongoing engagement of nurses at every level for shared goals.

These goals include:

- Improved outcomes in patient care
- Increased nursing satisfaction
- Quality improvements
- Enhanced recruitment and retention
- Improved interprofessional collaboration
- Increase in engaged and energized nurses

Shared governance exists at every level at UPMC through unit-based, hospital-based and business unit-based, and systemwide councils.

Our system level councils include:

**CNO Leadership**
Develops and implements a single strategic nursing vision to enhance patient outcomes, staff engagement, and fiscal responsibility.

**Nursing Leadership**
Serves as the vehicle by which nursing leaders initiate change and best nursing practice.

**Professional Practice**
Serves as the vehicle by which all professional nurses initiate change and best nursing practice.

**Nurse Inclusion**
Recruits, retains, and enhances the professional development of diverse nurses.

**Nursing Evidence-Based Practice and Research**
Responsibilities include Lippincott and policy oversight, best practice recommendation and integration, and oversight for research initiatives.

**Academic Service Partners**
Develops collaborative strategic vision with academic partners for student pipeline and outstanding student, faculty, and preceptor experience.

**Magnet**
Collaborates to embed the American Nurse Credentialing Center Magnet Recognition Program® framework across the division while maintaining unique cultures.

**System Informatics**
Standardizes and optimizes electronic health record to enhance patient safety, communication, and nursing workflow.

**Nurse Education**
Shares internal and external best practices that support and enhance nursing education initiatives to support professional development and quality care.

**Nurse Advocacy Council**
Advocates for nursing through participation in governmental activities and legislative reform.
Because Magee-Womens Hospital of UPMC is a national leader in women’s health care, nurses at Magee are collaborating with other women’s health nurses in the system, along with physicians and midwives, to standardize care and improve patient outcomes. Two key features of this collaboration are the Women’s Health Networking Group and the Obstetrical and Neonatal Nursing Fellowship.

**Networking Group Improves Patient Care**

The Women’s Health Networking Group focuses on a common goal and provides an outstanding opportunity for collaboration and sharing of best practices with colleagues.

Not all efforts are driven by Magee; rather, group members represent every hospital and are responsible for leading projects and sharing information. The group connects care providers, giving them the ability to reach out and ask for assistance as well as share positive experiences.

By networking in the group, nurses have a greater voice and are able to make a greater contribution. The Women’s Health Networking Group has completed guidelines relating to a number of topics including flu, hepatitis B, incident reporting, maternal addiction, sentinel events, and videotaping and photography in the labor and delivery areas. Additional guidelines are being created for infant abduction drills, screening for postpartum depression, reducing C-section infection rates, improving patient education about breastfeeding, and many more topics.

In addition, network members are collaborating to develop clinical pathways and new models of care in both OB and gynecology. For example, same-day hysterectomies have been piloted at Magee and have been implemented systemwide.

The networking group also is looking at ways that technology can enhance the birth experience. For example, expectant mothers are encouraged to use mobile apps that include patient education and allow them to make decisions about their birth plan. The app prompts patients to make decisions in advance about whether they prefer a natural birth or an epidural, whether they want their other children in the delivery area, and whether they want to take the placenta home.

Finally, nurses in women’s health have undertaken the goal of Keystone 10, a Pennsylvania initiative to increase breastfeeding rates.

**Fellowship Promotes Women’s Health Expertise**

Nurses throughout UPMC are able to spend time at Magee to focus on women’s health and take what they have learned back to their home hospital. The Obstetrical and Neonatal Nursing Fellowship recruits nurses from Magee and other UPMC hospitals to spend eight weeks at Magee engaging in classroom and bedside training. The fellowship has nearly 68 alumni to date, with classes being offered three times each year.
Hospitals with a strong culture of safety have better patient outcomes. When national survey results showed that UPMC Hamot’s clinical staff had below-average perceptions about safety, leaders mobilized to change that. And survey results improved considerably between 2012 and 2014.

After reviewing scores from the 2012 Agency for Healthcare Research and Quality survey, leaders knew they had reliable input that signaled the need for change. We saw hard quantitative data that told us we were not where we thought we were.

The next essential step was gathering qualitative data. Forty-two department managers held debriefing sessions with frontline clinical staff to get answers to key questions: What drove their survey responses? What do hospital staff do well? What would an ideal culture of safety look like?

In response to staff feedback, leaders identified themes and 120 separate initiatives for improvement. Staff saw a closed loop; leadership responded to their feedback and developed action plans. Changes were made.

Survey results revealed that staff had concerns about handoffs between units. Frontline staff convened to revise the process and improve safety. (See related chart next page.) Contributions from staff and responsiveness from leaders were the essential parts of the successful equation. Staff saw an effort to systematically and intentionally collect feedback that could lead to action plans and the best patient outcomes. Truly, it was an exercise in gathering the “wisdom of the crowd.”

Improving the culture of safety is an ongoing priority at UPMC Hamot. Despite improved scores between 2012 and 2014, leaders and frontline staff continue to explore opportunities for improvement. The spotlight is on enhancing communication and using debriefings to make positive changes.

UPMC Hamot leaders shared their rigorous, disciplined, and focused strategies with other UPMC hospitals to allow systemwide improvements.
Streamlining Handoffs Between Units

Survey results revealed that staff had specific concerns about handoffs between units, a task that nurses are involved in every day. Debriefings with the Mom and Baby Unit and the Labor and Delivery Unit identified concerns about the care transition that occurred when postpartum patients and their newborns were transferred. As a result, a team of staff from these units and the NICU convened to revise the process. The team successfully developed a structured handoff tool to manage any red flags; when the tool is used consistently, gaps in the process disappear.

Introducing Our Newest Nurse Leader

Marion McGowan, MPH, BSN, recently joined UPMC Health Plan as chief clinical administration officer and vice president of clinical affairs. Prior to joining UPMC, Marion provided 24 years of service in various clinical and administrative roles and leadership in Pennsylvania.
Diabetes affects so many aspects of life, and compliance is challenging for patients simply because they have the potential to experience so many complications when they have diabetes.

Reaching patients with diabetes is the first step in educating and caring for this population. At UPMC Bedford Memorial, a rural hospital with 1,365 acute admissions in FY2016, this is accomplished by a nurse diabetes educator. The educator meets with every patient who is discharged from the hospital on insulin for the first time. In addition, these patients are encouraged to come back for additional education. Seventy-two people attended hospital classes in FY2016 alone.

Patients with diabetes, particularly those experiencing complications, are faced with many decisions when it comes to managing their disease. The diabetes educator uses shared decision-making with these patients. Beyond making sure they are meeting glucose goals, she asks them “what are you working on for next time?” The objective is to focus on the patient’s priorities, such as taking medications as prescribed or eating better, and tackling each one at a time so that changes are manageable.

Because there are no endocrinologists in Bedford County, the Diabetes Care Program sought to enlist a medical team to help care for local patients. A big part of the solution was telemedicine, which gives Bedford County residents access to care from UPMC physicians located elsewhere. In FY2016, 110 outpatients saw an endocrinologist via telemedicine. Maternal Fetal Medicine also saw 15 diabetic patients during their pregnancy via telemedicine leading to healthy pregnancy and delivery.

The shared decision-making and telemedicine efforts were both initially funded by a 2014 grant from the Beckwith Institute. The grant application and proposal were written by Tammie Payne, MS, RN, CDE, of UPMC Bedford Memorial in conjunction with Linda Siminerio, RN, PhD, CDE, who oversees diabetes education at UPMC. Furthermore, Dr. Siminerio has shared best practices originating at UPMC Bedford Memorial with other UPMC hospitals.

Another way that the diabetes educator reaches the community is to establish time with patients in three of the area’s larger physician offices. She and a dietitian arrange to be on-site at each practice for at least one day each month, and the physician practices schedule patients with diabetes to come in on those days. In FY2016, the diabetes educator and nutritionist saw 120 patients in these physician offices, providing one-half to one-hour of counseling to each one.

These efforts are making a difference. A1c levels provide an indication of the success of the patients seen in our diabetes programs. In the community physician offices, 82 patients had a reduction in A1c of 1 percent. The 110 patients receiving endocrinology telemedicine had an average reduction in A1c of 1.5 percent. This year, community diabetes educators began home care visits to 10 patients. Home care patients have reduced A1c levels by 1 percent. These are remarkable achievements.
UPMC nurse leaders are changing not only the direction of UPMC as an organization but also the direction of nursing in Pennsylvania. One way they are leading change is through membership in the PA Action Coalition (PA-AC). PA-AC works to promote a healthy Pennsylvania through improvements in the quality, accessibility, and safety of nursing. These advances are the result of implementation of recommendations presented by the Institute of Medicine’s (IOM) Future of Nursing report and through strategic partnerships throughout the state. The coalition is composed of a diverse group of local, regional, and state-level stakeholders. These include individuals and organizations from health care facilities, academic institutions, nursing leadership organizations, for-profit organizations, nonprofit organizations, and those generally interested in advancing nursing education and practice in the state of Pennsylvania. UPMC is proud to have four executive leaders in this initiative.

As co-chair of the PA-AC’s Nursing Diversity Council, I focus on two main missions: increasing the diversity of the state workforce and embedding cultural competency in the current workforce.

Creating a More Diverse Workforce
As the diversity of the patient population changes, the diversity of the workforce by ethnicity, race, and gender should mirror that. To analyze diversity statewide, the coalition is looking at the state in sections, called Regional Action Coalitions (RAC). The findings were as follows:

- White RNs to total white population have the highest ratio in all nine RACs.
- Ratios of non-Hispanic/Latino RNs to total Non-Hispanic/Latino population are between 1:121 (SE2-RAC) and 1:191 (SC-RAC); ratios of Hispanic/Latino RNs to Hispanic/Latino population are between 1:68 (SW-RAC) and 1:424 (NE2-RAC).
- Across all nine RACs, the ratios of total female RNs to total female populations are considerably higher than that of the total male RNs to total male populations.
- Blacks and individuals from other races are underrepresented in nursing across the nine RACs and are 2-6 times less likely to be a nurse compared to whites.
- Males are underrepresented in nursing across all nine RACs and are between 8-13 times less likely to be a nurse compared to females.
- Asians and American Indians are equally likely to be nurses compared to the white reference group in some RACs.
- Among all racial groups, blacks are the most underrepresented in nursing.

To encourage different types of people to pursue nursing as a career, the coalition has developed a series of videos that showcase diverse nurses at UPMC. The videos were shot on location at UPMC facilities, including many at UPMC Mercy, and were funded by UPMC. The PA-AC has aired the videos via social media.

In addition to this outreach, the coalition has embraced a concept called “gracious space.”

The UPMC Nurse Mentoring Program contributes to the professional and personal development of minority nurses through relationships that are nurturing and supportive. Learn more at UPMC.com/NursingVideos.
The goal is to create a warm and welcoming environment to attract diverse individuals and make them want to stay. In a gracious space environment, no one is afraid to ask questions, people feel free to learn in public. More information about gracious space can be found on the Center for Ethical Leadership website.

**Embedding Cultural Competency**

All nurses need to feel culturally competent to care for all types of patients. To assess whether this is the case in Pennsylvania, and whether sufficient education and resources are available, the coalition conducted a Cultural Competency Survey in 2015.

The results of the survey will be announced at the *Pennsylvania Health Care Mosaic: Building a Culture of Health Equity* conference in October 2016.

PA-AC colleagues from across the state view their efforts in cultural competency as an immediate and essential component to ensuring appropriate care for the state’s diverse populace.

To achieve the goal of increasing access to high-quality, culturally relevant care among the diverse populations in the United States, UPMC and the PA-AC believes the nursing profession must increase its appeal to young people, men, and non-white racial and ethnic groups.

### Diversity Shortcomings in Southwestern Pennsylvania

The PA-AC has identified gaps in diversity in different parts of the state. The following statistics demonstrate the need for more workforce diversity in our region:

- Keeping all variables constant an individual that identifies him/herself as black is three times less likely to be a nurse.
- Keeping all variables constant an individual that identifies as a male is eight times less likely to be a nurse.

<table>
<thead>
<tr>
<th>Ratio</th>
<th>NW2 RAC</th>
<th>Southwestern Pa.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ratio of Total White RNs to Total White Population</td>
<td>1:145</td>
<td>1:119</td>
</tr>
<tr>
<td>% of White RNs to Total White Population</td>
<td>0.69%</td>
<td>0.84%</td>
</tr>
<tr>
<td>Ratio of Total Black RNs to Total Black Population</td>
<td>1:837</td>
<td>1:182</td>
</tr>
<tr>
<td>% of Black RNs to Total Black Population</td>
<td>0.12%</td>
<td>0.50%</td>
</tr>
<tr>
<td>Odds Ratio of Black Nurses Compared to White Nurses</td>
<td>5.75</td>
<td>1.52</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ratio</th>
<th>SW RAC</th>
<th>Southwestern Pa.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ratio of Total Female RNs to Total Female Population</td>
<td>1:70</td>
<td>1:107</td>
</tr>
<tr>
<td>% of Female RNs to Total Female Population</td>
<td>1.42%</td>
<td>0.93%</td>
</tr>
<tr>
<td>Ratio of Total Male RNs to Total Male Population</td>
<td>1:592</td>
<td>1:1,349</td>
</tr>
<tr>
<td>% of Male RNs to Total Male Population</td>
<td>0.17%</td>
<td>0.07%</td>
</tr>
<tr>
<td>Odds Ratio of Male RNs to Female RNs</td>
<td>8.4</td>
<td>13.3</td>
</tr>
</tbody>
</table>
UPMC prides itself on the exemplary care we give to our patients and also values the excellence of our nursing staff. One way to denote this excellence is through professional certification. According to the American Nurses Credentialing Center (ANCC), certification demonstrates that a nurse has mastered a body of specialized knowledge beyond the minimum requirement to practice nursing. Certification enhances professional credibility and is evidence of professional commitment.

ANCC offers specialty certifications in 27 categories, including medical-surgical, emergency, and critical care nursing. In addition, the organization offers multiple nurse specialty certifications and clinical nurse specialist certifications.

Nurses who have specialty certifications are poised to provide outstanding patient care and contribute to patient safety. A growing body of evidence links a higher proportion of certified nurses to decreased patient mortality, falls, and failure-to-rescue rates. Certified nurses tend to be professionally connected and active with professional nursing organizations, which helps them to remain up-to-date on patient safety issues and evidence-based practices in their specialties.

**My Career Ladder**
To underscore the importance of specialty certification, the My Nursing Career Ladder was designed around five levels of progressive clinical nursing practice. This career pathway specifies that registered nurses who seek the title senior professional staff nurse must possess a current UPMC-approved nursing certification. Currently, there are 56 senior professional staff nurses at UPMC Passavant.

At UPMC, senior professional staff nurses are consistently relied upon as unit leaders. They serve as clinical experts, staff or patient educators, resource nurses, and role models throughout the organization. In addition, senior professional staff nurses make annual professional contributions, which may take the form of a patient satisfaction improvement initiative, a staff development initiative, or a work redesign project. For two examples of professional contributions, see page 19.

Certification is a commendable achievement that places additional demands on a working nurse. Preparing for and sitting for certification exams requires preparation time. Other barriers to certification for some nurses may be test-taking anxiety and the costs of the exams. In addition, continuing education credits must be earned to maintain certifications. UPMC offers support to nurses who seek certification, including tuition assistance.
Two nurses at UPMC Passavant recently completed professional contributions that improved care for patients with special needs. Theresa Schur, RN, cares for bariatric patients and identified a need for new equipment on units on the fourth, fifth, and sixth floors. Ms. Schur wrote a grant request to the UPMC Passavant Foundation and was awarded with funds to purchase the following items for each floor: a lift device, a transfer device, a wheeled walker, a drop-arm bedside commode, a shower gurney, and a hand-held shower aid.

Cindy Dayen, RN, conducted a study in the medical-surgical unit at the Cranberry campus and a literature review involving cuff size and blood pressure readings. As a result, she identified the need for conical cuffs for patients with larger upper arms. Alternative cuff sizes improve the accuracy of blood pressure readings.
Care coordination, an effort that began at UPMC Montefiore and UPMC Presbyterian, is increasing patient satisfaction and team satisfaction scores. That’s because care coordination takes a back-to-basics approach, acknowledging the patient (and family members) as the experts in the room — and the bedside nurse as the professional who spends the most time with and is most familiar with the patient.

The key to care coordination is structured and uninterrupted daily rounding. The bedside nurse, physician, and care manager visit patients every morning. When these professionals are present with the patient in the patient’s room, potential miscommunication is averted. The patient provides input and also hears important details, such as plans for care or discharge, directly. Team members are able to efficiently exchange information and make decisions on the spot. Orders are made in real time, with as many as 70 percent of orders already in the system by the time rounds are completed. And everyone present has a clear understanding of their roles and who is accountable for follow-up items.

Care coordination offers many advantages for nurses. For example, direct interaction with physicians helps nurses become better critical thinkers, learning daily in a practice setting. Indeed, this model encourages knowledge sharing.

Nurses have an equal voice, focusing more on the patient and the big picture and less on tasks. They find more joy in their roles when they see the significant impacts they make daily.

**Practicing to the Scope of License**

The care coordination model provides nurses with a high-level view that lets them know everything about the patient and the plan of care. This broad perspective naturally lends itself to other care situations, including mobility, nutrition, cognition, and end-of-life care.

Care coordination allows nurses to practice to the scope of their license. Most likely, this is the caliber of practice they envisioned when they were in nursing school.

As the care coordination model expands to all UPMC hospitals, the bedside nurses are integral in customizing the concept to fit the unique needs of each unit and the patients they serve. One necessary step is to find a way to free the bedside nurse to participate in rounds. This means shifting tasks to clinical resource specialists, nursing assistants, and other staff. As a result, more staff are empowered.

The shared decision making inherent in care coordination leads to effective, efficient care, as evidenced by drops in length of stay, readmissions, hospital-acquired conditions and other measures. Survey results demonstrate that patients have a more positive and seamless experience. In fact, staff responsiveness, nurse communication, and doctor communication scores have risen significantly. At the same time, surveys have shown that staff perceive improved patient communication as well as team communication.

<table>
<thead>
<tr>
<th></th>
<th>Baseline (4/1/12-6/30/12)</th>
<th>Initial 6 Units Live (1/1/14-3/31/2014)</th>
<th>% Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rate hospital 9-10</td>
<td>54.4</td>
<td>62</td>
<td>14%</td>
</tr>
<tr>
<td>Recommend the hospital</td>
<td>62</td>
<td>71.3</td>
<td>15%</td>
</tr>
<tr>
<td>Communication with nurses</td>
<td>64.6</td>
<td>76</td>
<td>18%</td>
</tr>
<tr>
<td>Communication with doctors</td>
<td>69.7</td>
<td>74.6</td>
<td>7%</td>
</tr>
<tr>
<td>Communication about meds</td>
<td>52.6</td>
<td>58.7</td>
<td>12%</td>
</tr>
<tr>
<td>Discharge Info</td>
<td>82.7</td>
<td>86.9</td>
<td>5%</td>
</tr>
</tbody>
</table>
Skilled Nursing Facilities Lead the Way in Preventing Readmissions

UPMC’s skilled nursing facilities are ahead of the curve. Since 2008, facility leaders have been tracking the readmission rate, which is the number of residents transferred to hospitals. Reducing the readmission rate is critical. Hospitals have been penalized financially for readmissions, and now skilled nursing facilities are penalized.

In 2008, the readmission rate for UPMC’s skilled nursing facilities was 8.9 per 1,000 resident days. By 2016, that number was reduced to an average of three per 1,000 resident days. The national average hovers around four per 1,000 resident days.

Staffing, Policies, and Resources Make the Difference

Multiple staffing changes in the skilled nursing facilities have led to our reduced readmission rates. One major change is certified nurse practitioners who began working on-site in 2013 to assess patient needs. Previously, these same patients would have been transferred to the hospital for assessment. The nurse practitioners forge strong liaisons with physicians, collaborate with aides and nurses, and serve as mentors for aides and nurses, who become more interested in seeking additional education and certifications themselves.

In addition, aides are now consistently assigned to residents for longer time periods. This strategy — nationally recognized as best practice in the long-term care world — allows the aides’ ongoing familiarity with residents to help them identify concerns early and address those concerns with the certified nurse practitioner and nurses.

Shared decision-making with residents around the issues of palliative care and end-of-life choices make it possible for patients to avoid hospitalization if they wish to. This is significant not only because residents can choose to die peacefully among people they know, but also because ICU costs for end-of-life care are skyrocketing in the United States.

UPMC resources and technology, including telemedicine and on-site radiology and electrocardiogram (EKG) readings, also help contain readmission rates. For example, EKGs are not ordinarily available in skilled nursing facilities. However, nurses have access to this equipment at UPMC’s facilities. They can send readings immediately to UPMC Presbyterian, heart attacks can quickly be ruled out, and residents are able to remain in their skilled nursing environment instead of being transferred to a hospital for an EKG.

For the nurses and aides at UPMC’s skilled nursing facilities, exposure to technology and UPMC resources is an advantage that can build skills and improve their employment opportunities. The factors that reduce readmission rates and provide better quality of life for residents also contribute to a great working environment for our staff.

Telemedicine in the Skilled Nursing Setting

A telemedicine session gives staff and residents access to physicians. At times, residents’ family members can also participate. In one case at Seneca Place, the nursing staff arranged a telemedicine consult with a physician to address a resident’s infection and goals of care. The resident’s son was out of state and unavailable to join in person. He was able to participate in the secure telemedicine session, attending from his home computer. The resident wore a sound amplifier so that she could hear her son and the physician. Together as a team, they all discussed the goals of care. As it turned out, the resident died later that night, just hours after hearing her son say “I love you” via telemedicine.
As an institution with an integrated payer and provider system, UPMC uses resources creatively. One focus is the transition of care, from department to department, facility to facility, and to home and community.

Every transition creates an opportunity for positive results, such as overcoming social as well as physical barriers for patients who are going home, so they can remain at home safely and comfortably. A well-executed transition also means avoiding negative results, including readmissions, medical errors, duplication of services, and unnecessary expenses.

In short, positive transitions are essential for positive patient outcomes. And every day, nurses are the key to effective transitions — working with colleagues as well as patients and families — managing the endless stream of arrivals and departures. As medicine shifts to a more team-based model, the nurse’s potential for affecting transitions and related consequences only grows greater.

Every single individual in nursing has a magnified role, looking not only at the patient in front of them but also at the continuum of care. The question has become, “What can I do to improve that care?”

A nurse’s ability to convey information to the next team involved in the patient’s care is critical. Similarly, the nurse’s ability to communicate with a patient and family during a transition is essential.

Communication and interprofessional collaboration are all part of a day’s work when it comes to transitions. The remaining task is building the foundation for smooth transitions. At UPMC facilities in Allegheny County, new practices have begun that have the potential to spread systemwide, both from location to location as well as through the cyberspace, thanks to telemedicine.

New Programs Address Transitions

Teams across UPMC are building programs to support positive transitions, responding not only to changing payment models and shifts in reimbursement rules but also to evidence-based trends (see box). For example, payers and providers are teaming up to initiate unique changes. Where the advantage of having a home care nurse is clear, the co-pay is waived so that patients have more incentive to participate in a care management program. In addition, interventions in the home and the community can be the deciding factors in whether or not patients are readmitted for true medical — rather than social — reasons. All along the continuum, from the hospital to outpatient facilities, to home and community care, nurses are the ones bringing this architecture to life. Alongside administrators who design transition efforts — and with physicians, pharmacists, social workers, and many others — nurses are an integral part of the relay, passing the baton in the race to more efficient and effective transitions. The opportunities may not reflect traditional ideals of nursing, but they are emerging as important options and experiences for UPMC nurses.

The following groups and programs are all part of UPMC’s innovative efforts in care transitions:

- Post-Acute Care Transformation Work Group
- Palliative Care Transformation Work Group
- Home Transitions Program
- Care Through Transitions Program
- Advanced Illness Care
Managing Alarms and Empowering Nurses

In 2016, the Joint Commission required compliance of all hospitals regarding alarm management. This means that UPMC, like other health care systems, has had to review all equipment with alarms and establish protocols for their use. Specifically, protocols state who can remove monitors and change settings. In addition, UPMC has had to demonstrate to the Joint Commission that these protocols are in place. Effectively managing alarms is essential for relieving alarm fatigue. The primary danger of alarm fatigue is desensitization. The clamor of too many alarms can make a nurse tune out, not tune in. Consider: In 1986, six pieces of equipment in a typical ICU had alarms. Now, there are as many as 40 pieces of equipment that may have alarms, all competing for attention.

Since 2014, systemwide teams of physicians, nurses, and other health care practitioners have prepared to meet this goal. The process began with the daunting task of evaluating 26,000 pieces of alarmed equipment throughout the system.

Focus on Cardiac Monitoring

Ultimately, the alarm management teams identified 100 pieces of equipment with alarms that could potentially involve a truly catastrophic outcome. One item on this list received particular attention: cardiac monitoring, which is also referred to as cardiac telemetry.

After consulting UPMC physicians and nurses with cardiac expertise, and completing a review of the literature, the team put the new nurse-driven cardiac removal protocol in place. The protocol empowers nurses to decide which patients can have cardiac monitoring discontinued once the physician’s order supports this protocol. This is possible because the protocol is built directly into the eRecord, putting information in front of nurses to help them make the best decisions regarding the need for cardiac monitoring. The eRecord can be programmed accordingly when the protocol is not applicable, such as in the ICUs or on specific units. The protocol boosts patient safety — and staff morale. The perception was that all patients are put on cardiac monitors. We want to reduce competition for nurse’s attention, keeping the focus where it truly belongs: on our patients.

The next steps included educating clinical staff about the new Joint Commission requirements and the removal protocol, and to establish annual competencies that staff will be able to access through uLearn.

UPMC’s effort is far ahead of other hospitals, and is likely to influence similar hospitals nationwide.
UPMC is unique in having three schools of nursing: Mercy Hospital School of Nursing, UPMC Shadyside School of Nursing, and UPMC St. Margaret School of Nursing. The diploma programs at these schools graduate registered nurses, the credential needed to enter the nursing profession. The programs are alternatives to four-year degrees, which some students might not be able to attend initially. Frequently, students come to nursing after starting along another career path. As many as 50 percent of our students already have a bachelor’s degree or higher in another field when they enroll with us.

At all three schools, nursing students gain clinical experience within the first couple of weeks of their educations. Yet the three schools offer a variety of opportunities. For example, the evening/weekend program at UPMC Shadyside is ideal for a student who works during the day, and the day program at Mercy accommodates students who have school-age children. On average, students graduate in 16 months from the full-time program, and in 22 months from the part-time program.

The schools attract a mixture of candidates. Together, all three schools offer a diverse educational environment. Anyone who is thinking about being a nurse will find someone who looks like them within our UPMC Schools of Nursing.

**Concept-Based Curriculum**

The UPMC Schools of Nursing have introduced a new concept-based teaching and learning curriculum, which focuses on specific concepts and how nurses can assess patients throughout the lifespan. For example, a student nurse studies oxygenation and learns how this symptom may differ in children, pregnant patients, and post-op patients. Students distinguish whether this symptom indicates pain or something far more critical, such as pulmonary embolism.

Students are given case studies so they learn what to ask and how to assess what is really going on rather than make assumptions based on existing diagnoses. Relying on an existing diagnosis may result in numerous negative results, including failure to rescue or readmission. Better nursing assessments and interventions are the focus as they lead to better patient outcomes.

**Stepping Stone to the BSN and Beyond**

All three schools of nursing offer dual enrollment, which means that all students accepted in the diploma program are automatically accepted at partnering institutions of higher learning to obtain their BSNs. Based on self-reported data from alumni, about half of UPMC graduates continue their studies and obtain a BSN. A considerable number also go on to pursue advance degrees. Many graduates see their careers skyrocket with advanced education. In fact, many graduates have become nurse leaders and chief nursing officers within UPMC.
An episode of Intensive Care delirium can result in a patient’s cognitive impairment for six months up to one year, making it impossible for some individuals to return to normal functioning. In fact, the six-month mortality risk for patients who have experienced delirium versus patients who have not is significantly greater. In the short term, delirium adds to length of stay and hospital costs.

Like its consequences, delirium’s reach is surprisingly extensive: an estimated 80 percent of patients experience delirium. This includes patients of all ages, but especially the elderly and those on mechanical ventilation. Their responses might be hyperactive (agitation, restlessness, removing catheters), hypoactive (apathy, lethargy), or mixed. Hallucinations and general confusion are common experiences.

The ICU Standardization Committee, an interprofessional team, has been in operation systemwide for two years. One of the primary goals has been identifying and preventing dementia.

**A Valid Assessment Tool**
Witnessing delirium is one thing; verifying it is another. Although bedside nurses know quite well that delirium affects patients, they have not had a means of measuring and recording it.

Thanks to the efforts of the ICU Standardization Committee, the intensive care delirium screening checklist (ICDSC) scale was built into the eRecord as an assessment tool for delirium.

Use of the ICDSC scale, when applied during every nursing shift, tracks the patient’s ongoing experience with delirium. This is important because delirium fluctuates. In the same patient, evidence of delirium may be present or be markedly absent from shift to shift.

The screening checklist allows each nurse to evaluate several factors using a simple zero or one rating scale. The factor is either present or it isn’t. The factors include inattention, disorientation, hallucination, agitation, inappropriate speech or mood, disturbed sleep-wake cycle, and symptom fluctuation. If four or more are present, the patient is experiencing delirium.

**Preventive Strategies**
All UPMC system hospitals have choices about how to prevent ICU delirium, but the ICU Standardization Committee encourages use of the “MORE” model, which it has shared systemwide. The acronym stands for the following:

**Music:** Urging patients to listen to their own music — especially soothing music — can help keep delirium at bay.

**Opening/closing:** Adjusting window blinds to let in natural light helps patients maintain normal day-night cycles.

**Reorientation:** Providing cognitive stimulation and promoting mobility are essential; the ideal scenario is getting patients out of bed for all three meals each day.

**Ears and Eyes:** Encouraging patients to wear glasses and hearing aids helps them be as alert as possible. At night, the use of eyeshades can help promote a healthy sleep cycle.

**Delirium Screenings and Prevention Techniques Benefit Patients, Lower Costs**

<table>
<thead>
<tr>
<th>Months After Enrollment</th>
<th>Probability of Survival (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Never Delirium (n=41)</td>
</tr>
<tr>
<td></td>
<td>Ever Delirium (n=183)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Median Cost</th>
<th>Never Delirium (n=41)</th>
<th>Ever Delirium (n=183)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICU Cost</td>
<td>$30,000</td>
<td>$50,000</td>
</tr>
<tr>
<td>Hospital Cost</td>
<td>$20,000</td>
<td>$40,000</td>
</tr>
</tbody>
</table>
Leadership rounding is not new. This effort to evaluate and improve the patient experience has been used at UPMC hospitals and nationwide for some time. What is new is eRound, an app developed at UPMC that leaders can use during rounding to address patient — and staff — concerns in real time.

The app, called eRound, is available in the eRecord. Leaders can download it to their phones, tablets, laptops, mobile workstations, or desktop machines. The app guides users through a series of questions to ask patients and families. During their time with patients or right after, leaders can use the app to initiate an immediate response to any concern. Most often, alerts go to a unit director, but they could also go to directors in other departments, such as Dietary or Facilities. For example, if a room were not clean, the app would be used to contact Environmental Services for a swift resolution.

Because the eRound app is a web-based tool, leaders can use it not only to initiate, but also to track responses to specific alerts and requests. Moreover, the app can be used to identify trends. And it records which leaders round, and when. As a result, patient satisfaction results improve when we round.

Use of the app began as part of a pilot project in September 2014. Preliminary patient satisfaction reports from one of the pilot hospitals, Magee-Womens Hospital of UPMC, indicated significant improvements achieved during the first six months (see box). Now, the app is available systemwide.

**Satisfying Staff Too**

The use of the eRound app, in combination with the act of rounding itself, has created opportunities for better relations with staff. Because administrative and clinical leaders round in all areas of the hospital, they develop more insight into other departments’ work processes, which leads to mutual respect and collegial working relationships.

In addition, floor nurses appreciate the support that leaders can provide when rounding; nurses know that if they need particular help with a patient or family, a leader can talk to them during rounding. The quick resolution and accountability made possible through the app, and the opportunity to meet and work with staff outside of nursing, are separate components that both empower nurses.

**New App Drives Upturn in Satisfaction Scores**

Leadership rounding with use of the eRound app showed significant satisfaction results early on. Following is an example of satisfaction score results at Magee.

<table>
<thead>
<tr>
<th>Patient Satisfaction Topic</th>
<th>September 2014 Results</th>
<th>May 2015 Results</th>
<th>May 2016 Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff explain adequately</td>
<td>77 percent</td>
<td>86 percent</td>
<td>82 percent</td>
</tr>
<tr>
<td>Staff do everything for pain</td>
<td>78 percent</td>
<td>82 percent</td>
<td>79 percent</td>
</tr>
<tr>
<td>Staff listen carefully</td>
<td>72 percent</td>
<td>83 percent</td>
<td>81 percent</td>
</tr>
</tbody>
</table>

Source: HCAHPS
NEW KNOWLEDGE, INNOVATIONS, AND IMPROVEMENTS
How Data Display Impacts Efficiency and Prioritization of Care

CareCompass is a new functionality available in the eRecord. One view lets nurses see their entire patient assignment and allows them — without leaving CareCompass — to look also at individual patient records by following one hyperlink. Significantly, when new orders or abnormal test results become available, the nurse is alerted immediately.

CareCompass allows nurses to see 90 percent of all pertinent information regarding their patients in one area. As a new order is placed by the provider or as laboratory tests are resulted, an icon and a banner bar — red for stat or emergent; yellow for routine or within normal limits — illuminates around the patient’s demographic information. The nurse can review the new information from this view with a single click without navigating out of CareCompass.

The banners alert nurses to provide intervention where it’s needed, when it’s needed. This has a positive impact on patient safety.

Even when a nurse is looking at one patient’s record, he or she is alerted to a new order or result for another patient. To be able to view the new result, the nurse doesn’t have to close out of one patient record and open another.

In addition, a series of icons signal when certain types of routine tasks are due. These include giving medications, providing patient care, completing assessments, and other activities.

Having all this information clearly provided in CareCompass makes it easy for nurses to share patient lists when covering for one another. They no longer need to rely on memory or a hastily prepared note, since CareCompass provides all-encompassing details about each nurse’s caseload.

Nurses’ Feedback Instrumental During Pilot

CareCompass was piloted on one unit at each UPMC facility in September 2014. Throughout the pilot, nurses provided feedback. For example, nurses were concerned that, at first, the CareCompass button was not conveniently located in the eRecord. In response to their comments, the button was moved and is now always on view.

CareCompass helps nurses to prioritize, saving precious time, and allowing them to focus on providing excellent quality care.
Hillman Cancer Center is renowned for its high-tech and high-touch oncology care. In addition to receiving high-risk treatments for a cancer diagnosis, many patients treated at Hillman Cancer Center often have complex medical problems. The added medical issues increase the likelihood that a patient could experience a rapid decline in health stability resulting in the need for emergency management. Faced with increasing patient volumes and the development of new and often highly reactive treatment regimens, nursing leadership identified an opportunity to review the practice of emergency management in the ambulatory care setting. The goal was to increase nurses’ confidence in identifying the need for emergency management, boost feelings of increased competency during crisis, and improve communication to the Shadyside Emergency Management Team.

To establish current practice, nurse leaders partnered with the Cancer Center Shared Governance Councils to review outcomes and to identify any opportunities for improvement in emergency management. The following steps were taken to work toward achievement of the goal.

• Nursing staff were surveyed on their comfort level with emergency management in the ambulatory setting and identified areas for focused review.

• The Professional Practice Council and Evidence Based Practice Council developed patient triage guidelines based on the Common Terminology Criteria for Adverse Events (CTCAE). These guidelines aim to assist staff in gauging patient acuity and potential need for higher level of care.

• The Cancer Center Advanced Clinical Education Specialist partnered with senior professional nurses to review Hillman triage protocols and simulated emergency management to prepare treatment nurses for a wide array of possible emergency scenarios.

• When a patient needs emergency management, a dedicated team of specialty trained nurses and Advanced Practice Providers (APP) called the First Response Team responds to assist with emergency management. This team was restructured to include all ACLS nurses.

• APPs were assigned to each treatment unit to assist the treatment room nurses in handling drug reactions, assessing critical patients, and to assist with Emergency Department transfers.

Post-intervention surveys administered to Hillman nurses indicated increased confidence identifying when a situation has turned critical, increased feelings of competency during a crisis, and improved hand-offs with the UPMC Shadyside Code Team. Furthermore, the incidence of emergency management support from the Shadyside Code Team showed a decrease by 40 percent from 2013 to 2015 and the trend continues to decrease in 2016. Nurses reported all are more expertly prepared in emergency management. Secondly, nurses have become proficient at early recognition and intervention when a patient’s condition begins to deteriorate, allowing them to avoid the code situation altogether.

Cancer Center Nurses Hone Their Emergency Management Skills

Sue Gibson, MBA, BSN, RN
Senior Director of Operations
Hillman Cancer Center

Incidence of Codes Decreases at Hillman Cancer Center

<table>
<thead>
<tr>
<th></th>
<th>FY2014</th>
<th>FY2015</th>
<th>FY2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Codes</td>
<td>22</td>
<td>14</td>
<td>11</td>
</tr>
</tbody>
</table>

UPMC Center for Nursing Excellence and Innovation
At times, patients in the hospital require constant observation to reduce the risk of harm. Primary concerns are that patients may hurt themselves by falling or pulling out tubes. Others may be at risk for elopement.

In the past, nursing assistants were typically asked to observe these patients and serve as “sitters,” but that limited the nursing assistant’s availability to fulfill clinical responsibilities. UPMC’s chief nursing officers requested both a systemwide review of the sitter process and recommendations for a more standardized approach.

The internal review, which was completed by a systemwide interdisciplinary team, showed that UPMC spent considerable resources per year in sitter utilization. In addition, UPMC did not have a standardized protocol for using care attendants across the enterprise. The committee’s goal was to establish a more efficient, cost-effective method to address patient observation on all medical units (a separate set of standards exist for behavioral health patients).

There is no research to suggest that constant observation reduces the risk of patient harm, which includes falling and self-harm.

Experience at UPMC confirmed conclusions drawn from nationwide data: even though direct-care staff were used as care attendants, these expensive measures did not contribute to better patient care.

Another practical — and gratifying — aspect of the new protocol is that the nurses call the shots. Nurses are empowered to assess the patient and order a safety care attendant when needed. It is not necessary for a physician to make the order.

The new safety care attendants have been introduced throughout the UPMC system. This is one example of UPMC’s response to using evidence-based approaches to providing cost-effective care.

Learn more about UPMC’s new care attendant protocols by visiting UPMC.com/NursingVideos.
At Western Psychiatric Institute and Clinic of UPMC, what started as a pilot program in 2008 has grown to encompass all patient units and drastically drive down readmission rates. The program was generated by one nurse’s observation that symptoms abated in patients who were stabilized on medication. However, patients who did not continue their medication were highly susceptible to relapse and readmission.

This observation led to a collaboration of nurse clinicians, pharmacists, psychiatrists, and social workers that promoted medication adherence by identifying and addressing outpatient barriers to medication access — in order to get patients off to a successful start while still in the hospital. The program is called MEDPACT, which stands for medication and education at discharge pharmacist-assisted care transitions.

Transitioning from an acute hospital stay to home can be a vulnerable time for any patient. Behavioral health patients can find this period particularly challenging. For example, nearly 50 percent of patients with schizophrenia do not adhere to their medication regimens, which can lead to relapse, readmission, poor clinical outcomes, and high economic costs. Integrating pharmacy services into the discharge-planning process has not only helped to identify and address barriers to medication access and adherence, but also to improve patient outcomes.

Recognized barriers that keep patients from adhering to their medication plan include poor communication and lack of discharge planning when they are inpatients. As outpatients, individuals face other concerns, such as no access to a pharmacy, delays or hurdles caused by insurance procedures (such as prior authorizations or quantity limits), and even the inability to meet co-pays. In particular, a patient who lacks social support may find it impossible to overcome these challenges.

MEDPACT contributes to a successful transition by providing support in multiple ways. Before discharge, the patient receives one-on-one medication counseling tailored to his or her specific needs. Most importantly, the UPMC outpatient pharmacy processes the patient’s prescriptions and delivers them directly to the patient before discharge. Having a 30-day supply of medication at the time of discharge is essential in helping a patient adjust from inpatient to outpatient care. The patient is then free to continue to use the UPMC outpatient pharmacy or choose a more convenient option.

Patients who have benefited from the MEDPACT program experienced a 52 percent reduction in readmissions in 2015. For FY16, it appears that there is continued evidence that the MEDPACT program assists in decreasing the 30-day readmission rate for patients who participated. The program helps people live independently in the community. By making every effort during an inpatient stay to see that patients are compliant with their meds as outpatients, we help patients take charge of their own treatment plan and care.

MEDPACT Program Timeline

| Patient prepared for discharge. | Discharge prescriptions entered in Eprescribe and filled at Forbes Pharmacy. | Medications couriered to inpatient unit. | Pharmacist provides medication counseling and education. | Patient discharged with needed medications and knowledge. |
Nurse-sensitive indicators are nursing activities that affect patient outcomes. At UPMC Altoona, one success story involves the reduction of hospital-acquired pressure ulcers (HAPUs) thanks to the efforts of a nursing-led interdisciplinary team. The incidence has decreased from 3.5 per 1,000 patient days in 2008 to fewer than 1.5 per 1,000 patient days in 2015 (see box).

A small increase in incidence was seen after implementation of the eRecord. After investigation, some risk reduction strategies were put in place, including a skin care team to review trends and best practices. UPMC Altoona continues to see success.

With the help of the Wound Care Department, the team was initially instituted to identify why the incidence was spiking and recommend solutions.

Since then, efforts to reduce the incidence of HAPUs at UPMC Altoona have included the purchase of new mattresses for 100 percent of hospital beds and use of new nasal cannulas that are less likely to cause pressure ulcers. In addition, new underpads and compression stockings are being used with good results.

One important result of the team’s efforts is that nurses are now able to request a wound care consult. In the past, this request could be made only by a physician. In addition to this change, staff have consistently maintained standard routine processes, such as thoroughly assessing a patient’s skin on admission and checking for HAPUs during hourly nursing rounds. Common steps to help prevent pressure ulcers include turning patients and helping patients ambulate regularly.

In terms of administrative protocols, managers now receive daily emails regarding the number of pressure ulcers on their units, and the Patient Safety Committee gets monthly reports about their incidence.
This scrutiny is warranted, in terms of patient comfort and safety — as well as health care costs. This is because hospitals are not reimbursed for treating HAPUs.

Some estimates from the Centers for Medicare and Medicaid Services show that the average cost of treating a HAPU ranges from $43,000 to $50,000 per patient. One stage-four pressure ulcer can cost up to $129,000 to treat.

Cost drivers for HAPUs include antibiotic treatment and longer inpatient stays. Beyond costs, satisfaction is a core concern. Patients expect to return to their original baseline of activity and not to be held back by pressure ulcers. The bottom-line is that ulcers cause distress.

Nurses were key in driving our success in containing both HAPU-related costs and making patients comfortable. The successful protocols piloted at UPMC Altoona are now being rolled out systemwide.

### Historical Intervention Timeline

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>New mattresses for pressure relief trialed. Implemented CTICU powered mattresses. Auto consults began based on rating score. Prevalence and Incidence studies reported quarterly.</td>
</tr>
<tr>
<td>2008</td>
<td>Educational bed fair held. Learning module developed for utilizing new mattresses. Changed nasal cannulas to decrease brand areas on ears.</td>
</tr>
<tr>
<td>2009</td>
<td>Daily emails to managers detailed pressure ulcers found on their floor. New under pads utilized that wick away moisture. Monthly report to Patient Safety Committee with number data.</td>
</tr>
<tr>
<td>2010</td>
<td>Weekly Trauma rounds on STICU held weekly. Improved selection of TED hose to ensure proper fit, moved to increased use of SCDs.</td>
</tr>
<tr>
<td>2013</td>
<td>End of year, new mattresses purchased for pressure relief.</td>
</tr>
<tr>
<td>2014</td>
<td>Increase in incidence was noted after implementation of eRecord. Risk reduction strategies were put in place, including a skin care team to review trends and best practices.</td>
</tr>
<tr>
<td>2015</td>
<td>Started Skin Integrity Team.</td>
</tr>
<tr>
<td>2016</td>
<td>Additional education provided to staff regarding documentation, recognition, and staging. Planned to educate patient care technicians on recognition, intervention, and documentation. Formalized patient care technician role in HAPU practices.</td>
</tr>
</tbody>
</table>
Our Commitment to Excellence

Dedicated to life-long learning, many of our nurses demonstrated their commitment to excellence in patient care by earning advanced degrees and certifications. Others contributed to the practice of nursing through evidence-based activities, research studies, and grants. Knowledge was shared nationally and internationally through presentations and publications. UPMC nurses demonstrated leadership as they held offices in professional organizations. Others were recognized with honors and awards.

We are proud to celebrate the accomplishments our nurses. To view a complete list of our nurses’ achievements, visit UPMC.com/NursingAccomplishments.
More than 1,000 UPMC nurses attended the annual Nurses Week conference, held Tuesday, April 12, through Friday, April 15, at Cumberland Woods Village, on the campus of UPMC Passavant.

**More than 200 Individuals Nominated for Awards**
Seven Nurses Week Awards were presented to individuals who made significant contributions to nursing at UPMC. Award recipients were nominated by their colleagues. The blinded nominations were voted on by a committee comprising UPMC chief nursing officers and system nursing council co-chairs.

**Rising Star in Clinical Practice**
Shaylyn McDaniel, RN, Professional Staff Nurse, Department of Pediatric Endocrinology and Diabetes

**Champion of Nursing**
Daniel R. Sullivan, MD, JD, MBA, Chief Anesthesiologist, UPMC Passavant

**Spirit of Inclusion**
Mary Lou O’Connell, RN, Professional Staff Nurse, UPMC Passavant Wound Healing Services

**Outstanding Preceptor**
Suzanne Bucklen, MSN, RN-BC, CCRN-KI, Informatics Nurse II, UPMC Presbyterian

**Outstanding Clinical Faculty**
Linda K. Reid, RN, MSN, JD, Risk Specialist/Clinician, UPMC Shadyside

**Magnet® Recognition for Nursing Excellence**
James E. Donnelly, MBA, RN, Chief Nursing Officer and Vice President, Patient Care Services, UPMC Hamot, March 2016

Patients honor their nurses, at UPMC.com/NursingVideos.

**Leading with Wisdom**
Teresa Mingrone, MSN, RN, CCRN, Programmatic Nurse Specialist, Children’s Hospital of Pittsburgh of UPMC

**Legacy of Nursing**
Sandra McAnallen, RN, BSN, MA, Senior Vice President, Clinical Affairs & Quality Performance, UPMC Health Plan
Three Poster Winners Earned Top Honors
Forty-three poster presentations showcased evidence-based practices. Earning a coveted spot at the conference was particularly competitive this year, with more than 125 abstracts submitted. Prizes were awarded to the following posters.

First Place
Using Transparency about Wait Times as a Partnership with Our GI Lab Patients
Hospital: UPMC Shadyside
Authors: Megan Liston, BSN, RN; Nancy Hickcox, MSN, RN, CNOR; Sherri Jones, MS, MBA, RDN, LDN, FAND; Bill Zbrzezny; Kevin Vandermer; Beth Evans, RN

Second Place
Correlation of Missed Doses of VTE Prophylaxis and DVT/PE Rate in Trauma Patients
Hospital: UPMC Presbyterian
Authors: Amy Clontz, MSN, RN-BC; Katherine Spiering, MSN, RN; Louis Alarcon, MD; Dederia Nicholas, MSN, RN; Amy Sofranko, MSN, RN; David Bertoty, MSN, RN

People’s Choice
Decreasing Door-to-Antibiotic Times in Severely Septic Patients in the Emergency Department
Hospital: UPMC Hamot
Author: Ashlee Steger, RN, CEN
More than 21% of UPMC’s workforce is composed of nurses. Over the past three years, UPMC has hired more than 4,800 new nurses.

In FY2016, 2,186 total registered nurses were hired at UPMC. Of those, 1,761 were hired externally while 425 were internal promotions.

Of those hired, more than 51% were new graduates. Of those new graduates, 36% were baccalaureate prepared. We are proud that more than 38% of the new graduates we hired were internal promotions. This means that many of our internal employees attend nursing school while employed with us, often using our generous tuition assistance benefit (up to $5,000 per academic year for full-time employees).

As nursing at UPMC continues to become more robust, we are thrilled to welcome our new nurses, and watch as current nurses take advantage of the career opportunities at their fingertips to build fulfilling careers.
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