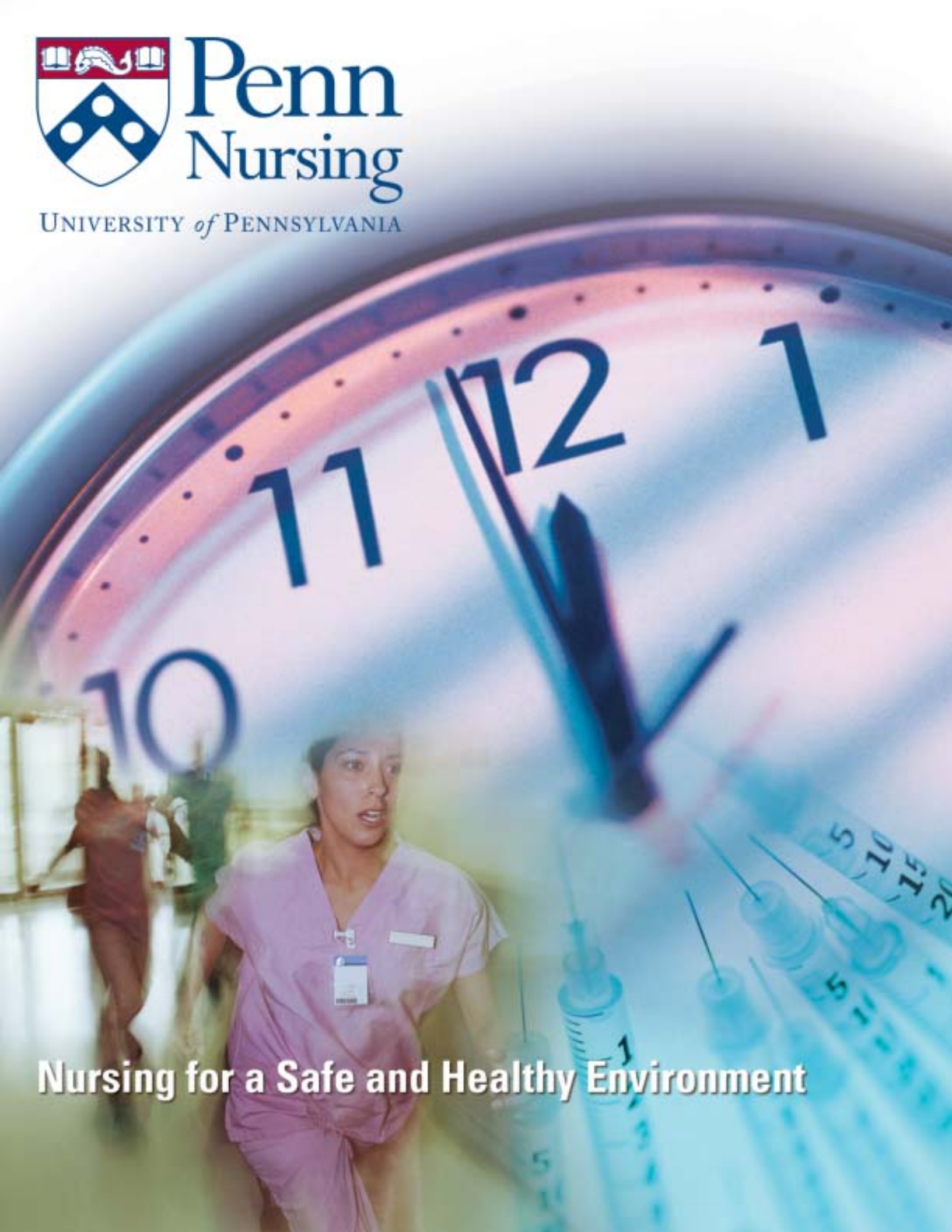




**Penn  
Nursing**

UNIVERSITY of PENNSYLVANIA



**Nursing for a Safe and Healthy Environment**

# Vision for the Future

We are committed to a future of national and international partnerships and interdisciplinary collaborations in advancing knowledge that will influence healthcare policies and practice. We envision our graduates in positions of leadership in national and international healthcare and as academic faculty who are at the leading edge of developing, transmitting, and evaluating fundamental and translational knowledge in promoting healthy lifestyles, enhancing quality of life, and facilitating living with chronic illness for vulnerable populations and nursing-care providers.

2003-2008 University of Pennsylvania School of Nursing Strategic Plan

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FALL 2004  
VOLUME 7  
NUMBER 2

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# FROM THE DEAN . . .

**Our environment at the School of Nursing is changing! If you visit us this school year (and we hope you will), prepare for a surprise. At our front entrance, you will step past piles of rubble, the first hint that we are dramatically renovating our building.**

Simple in vision, yet profound in effect, this renovation will propel our facility – a product of 1970s planning and architecture – into the 21st century. The new building will meet the growing and changing needs of our faculty, students, and staff. The first phase of construction revamps the ground floor to accommodate new and more easily accessible offices for student recruitment, admissions, enrollment, and support services. We are also upgrading information technology by adding wireless internet access in the new café and computer kiosks in the lobby – plus a striking glassed entrance bringing in a flood of light. The second and third phases of our renovation will increase, integrate, and enhance existing lab and research space. All of this will transform the building into a vibrant and inviting place that maximizes the comfort and productivity of faculty, students, and staff – properly befitting our top School of Nursing.

Just as the healthier environment of our renovated building will better support a healthy School of Nursing, the practice of nursing and its environment are intrinsically connected.

Many decades ago, as Florence Nightingale walked the halls of hospitals in Turkey caring for Crimean War victims, she formulated her ideas about the vital role surroundings play in illness and health. She described the importance of light, ventilation, aesthetics, and density in understanding and preventing infection and, more broadly, in healing and recovery. Subsequently, science documented her hypotheses. Today, to understand the processes associated with the onset of disease, cell mutations, genetic markers, risk factors, vulnerabilities, productivity, healing, recovery, and job satisfaction, we must understand the environments that produced them and the environments' biological, social, political, and cultural characteristics. Thus, nurses are trained, educated, and prepared to view health and illness by grasping the dialectical relationship between a person and his or her environment, such as a family within the context of individuals, a community within a structure, a society within the world. Nursing science at Penn continues to have an impact on the complex interaction between environments and well-being by promoting health, preventing illness and enhancing recovery – aiming overall to increase the level of functioning in daily activities for people throughout their life cycles.

Penn Nursing faculty members and their research teams are examining the effects of significant environmental stressors on different populations to offer models of care that help clients lead healthy and productive

lives. In the next few pages, you will sample some of the exciting scholarship and research conducted by our faculty and students.

For example, you will read about Dr. Linda McCauley, who is examining the effects of toxic pesticides on migrant farm workers, and Dr. Edith Simpson, who is creating a safer environment on the highway for children. While the legal, moral, and physical risks of guns are well-known, Dr. Therese Richmond's research on firearms as a public health issue explores how we can reduce the negative impact of guns in our lives. She is determined to improve the understanding of the factors leading to the epidemic of gun control violence and develop ways to curb the problem.

Another consistently challenging environment is found in nursing homes for the elderly. In their research, Drs. Lois Evans and Cynthia Scalzi ask this pressing question: What are the distinctive characteristics of those institutional environments that effectively care for the aged? The results of their analysis of how nursing homes can maximize benefits to the elderly will undoubtedly lead to changes in policy that retool the culture of institutionalized care to better support the relationship between the elderly and their caregivers. In her research, Dr. Karen Schumacher looks at informal caregiving by family members as a set of competencies that require coaching by nurses. The results of her studies will also affect caregiving environments for the elderly.



Dean Meleis is flanked by her husband, Mahmoud (left), and Pennsylvania Governor Ed Rendell with his wife, the Hon. Marjorie O. Rendell, a federal judge and chair of the Board of Overseers. Gov. Rendell has launched initiatives to improve the healthcare environment for Pennsylvania.

The hospital is yet another environment that has a dramatic impact on nurses and patients. Penn's Center for Health Outcomes and Policy Research, led by Dr. Linda Aiken, continues to uncover and document significant variables that make hospitals safe and healthy, enhancing outcomes for patients. Needlesticks and their prevention are examined by Dr. Sean Clarke; the consequences of fatigue experienced by nurses working overtime is the subject of pioneering research by Dr. Ann E. Rogers.

Florence Nightingale's admonition that environments play a central role in achieving positive patient outcomes is also well exemplified in the work of Dr. Diane Spatz. Her research

documents the advantages of breastfeeding for at least six months to increase both babies' and mothers' well-being. Motivated by the recent dramatic spike in obesity among children, Dr. Stella Volpe examines factors of both nature and the environment that define a healthy interaction with food for the suckling infant as well as the developing adolescent.

Wherever you look in our School – or in hospitals, nursing homes, Philadelphia highways, the world at large – you can see we care about our environment and our interaction with the world. The science that the faculty and students are developing will create healthy and safe environments for patients and nurses.

This issue of Penn Nursing is all about our relationship with our environments. Just as our School is changing, our University environment is too. We warmly welcome our new president, Dr. Amy Gutmann, and interim provost, Dr. Peter Conn, as we bid sad good-byes to President Judith Rodin and Provost Robert Barchi, thanking them for their contributions and joyfully wishing them well on life's journey.

# THE HOSPITAL WORKPLACE



The quality of some U.S. hospitals as workplaces is being eroded by a growing shortage of nurses, leading to excessive working hours and an increase in professional errors and hazards, including needlesticks. Efforts by the U.S. and other countries to offset the shortage by hiring nurses away from the developing world are deepening a healthcare crisis in countries that lack the resources of the richest economies.

Linda Aiken (left) and Ann E. Rogers study the hospital as a workplace for nurses.

## Negative Effects of Extensive Overtime

**Ann E. Rogers,  
PhD, FAAN, RN**

Growing pressure on U.S. nurses to work longer shifts with fewer breaks is threatening patient safety as fatigued staff are more likely to make professional errors, a new Penn study has found.

The project, the first to establish a clear link between long hours worked by nurses and an increased risk of errors on the job, shows the risk of making a mistake increased three-fold when nurses work 12.5 consecutive hours or more.

The study, led by Penn School of Nursing Associate Professor Ann E. Rogers, PhD, FAAN, RN, found all of the 393 nurses studied for 28 days worked late at least once, and less than 20 percent of the 5,320 shifts ended on time. Almost two-thirds of the nationally representative sample of nurses worked overtime 10 or more times during the study period, and there were 143 shifts when nurses said they were “coerced” into working overtime that was in theory voluntary.

The study found 59 percent of participants were working 12-hour shifts during the survey period. Almost one-sixth of the sample reported working 16 or more consecutive hours at least once during the project. The longest shift was 23 hours and 40 minutes.

There were 199 errors and 213 near-errors reported to researchers during the survey period. Fifty-eight percent of the errors involved medication; others included procedures, charting and transcription. Thirty percent of the nurses reported making at least one error and 32 percent made at least one near-error.

“The long hours currently being worked by many hospital staff nurses may have adverse effects on patient care,” the study authors reported. “Both errors and near-errors are more likely to occur when hospital staff nurses work 12 or more hours.”

Although the risk of error didn't increase significantly until shifts exceeded 12.5 hours, it began to rise after 8.5 hours, a conclusion consistent with other studies that have found a link between long hours and increased mistakes on the job.

Mealtimes and other breaks were effectively not adjusted to the length of shift, Dr. Rogers said. Nurses working a 12-hour shift had total break time averaging 25.7 minutes, little different from the average 23.4 minutes taken during an eight-hour shift.

As hospital managers in the U.S. and abroad struggle to offset a nursing shortage that is expected to worsen in coming years, nurses are not only assigned longer shifts, but are also frequently staying at work longer than scheduled, the authors reported.

Overtime increased the risk of error regardless of how long the shift was originally scheduled to run, and the risk increases after longer shifts. A work week of more than 40 hours also increases the risk of error, the survey showed.

The study, titled “Hospital Staff Nurse Work Hours and Patient Safety,” condemned the use of mandatory overtime as a “controversial and potentially dangerous practice.” Many nurses, while not threatened with disciplinary procedures if they do not work overtime, are made to feel that there will be “repercussions” if they refuse to do so, according to the authors.

Dr. Sean Clarke seen with safer sharps.

Only four states – California, Maine, New Jersey and Oregon – have banned mandatory overtime, and there are no state or federal regulations restricting the number of hours a nurse may voluntarily work in a 24-hour or seven-day period, as reported in the study, which was first published in July.

Rogers, A.E., Hwang, W-T, Scott, LD, Aiken, L.H. & Dinges, DF. Hospital staff nurse work and patient safety. *Health Affairs*. Vol 23 No. July/August 2004,1-11.

#### Injuries from Needlesticks

**Sean Clarke,**  
PhD, CRNP, CS, RN

Among the hazards faced by nurses working excessive hours are injuries from needles and other contaminated sharps which remain a serious occupational health concern for medical professionals, according to Sean Clarke, PhD, CRNP, CS, RN, an assistant professor at the Penn nursing school and  
*(continued on page 6)*



(continued from page 5)

Associate Director of the Center for Health Outcomes and Policy Research.

In studies based on data collected in 1990-91 and 1998, Dr. Clarke found nurses face the greatest risk of needlesticks in hospitals that lack adequate investment in staffing and equipment, and where the organizational climate is not conducive to a safe working environment.

“Nurses on units with less adequate resources, lower staffing, less nurse leadership and higher levels of emotional exhaustion were typically twice as likely to report the presence of risk due to staff carelessness and inexperience, frequent recapping of needles, and inadequate knowledge and supplies,” the first study reported.

The data in the needlestick studies were collected by the Center, directed by Linda Aiken, PhD, FAAN, FRCN, RN, the Claire M. Fagin Leadership Professor in Nursing and a professor of sociology, and principal investigator of the initial research.

Of the 962 nurses in the national 1990-91 study on AIDS care led by Dr. Aiken, 5.5 percent reported an injury involving a needlestick or sharp containing blood, and 23.7 percent reported a near-miss.

A second paper, written by Center Associate Director Dr. Clarke and based on the original survey of 2,278 nurses in 22 U.S. hospitals during 1998, found 48 percent of nurses said they had been stuck at least once in their career, 8.6 percent reported a needlestick in the previous year, and 1.2 percent in the last month.

Nurses reporting the highest workloads – those caring for more than six patients at a time – and those reporting the worst organizational climate

were 50 percent more likely than their counterparts in other hospitals to report needlestick injuries in the past year and near-misses in the last month.

Needlesticks and other sharps injuries should be seen as a proxy for a wide range of safety problems in hospitals, an analysis that argues for a systematic approach to the safety issue, Dr. Clarke said.

“A systems approach to needlestick prevention is warranted, one that involves examination of factors such as staffing levels, the mix of clinicians in terms of experience in nursing and on a particular unit, and adequate administrative support for nursing practice,” the authors found.

Although federal legislation in 1992 reduced the unnecessary use of needles and required the use of safety equipment with needles, there is room for further reduction of needlestick accidents, Dr. Clarke said.

The data showed that short staffing is one of the biggest modifiable factors that influence exposure to needlesticks, particularly troubling given the anticipated U.S. nurse shortage in coming years. “For safety issues in general, staffing is going to be a major barrier,” Dr. Clarke said.

#### Domestic Nursing Shortage

**Linda Aiken,  
PhD, FAAN, FRCN, RN**

As managers in the U.S. and other rich countries contend with a shortage of nurses, they are increasingly turning to developing countries to recruit nurses, exacerbating a shortage of nurses in those nations.

That’s the finding of a paper headed by Center for Health Outcomes

and Policy Research Director and Penn Sociology Professor Linda Aiken, PhD, FAAN, FRCN, RN, the Claire M. Fagin Leadership Professor in Nursing. Dr. Aiken calls for greater efforts by the developed world to build a sustainable domestic supply of nurses, and an increase in international aid for nurse training in developing nations.

The United States, with a total of some 2.2 million employed nurses, relies on foreign nurses for about four percent of its workforce currently, and is expected to face a nursing shortage of 275,000 by 2010, according to the study’s authors. The United Kingdom is twice as dependent on foreign nurses as the U.S. and anticipates being 53,000 nurses short of its requirements by 2010. Ireland, Canada, Australia and New Zealand have a similarly high reliance on foreign nurses.

The anticipated demand for nurses in developed countries risks blunting the efforts of some African countries to fight AIDS despite the availability of funding for the epidemic, the authors argued.

In Botswana, for example, where about a third of the adult population is estimated to be infected by HIV, the government’s commitment to providing free anti-retroviral therapy to its citizens is being threatened not by lack of financing, but by a shortage of nurses and other health workers.

Although the proportion of foreign nurses in the total nursing population in most developed countries is not currently high, the absolute numbers of nurses being imported from developing countries have a significant impact on those countries.

For example, if the United States were to double its proportion of foreign



# Study Focuses on Nurses' Ethical Issues

Connie Ulrich, PhD, RN

Ethical issues faced by nurses in relation to patient care may lead to low morale, dissatisfaction or even departure from the profession, according to anecdotal evidence that is now being systematically researched.

For example, a nurse may disagree with the treatment plan set for a patient by managers because he or she feels it compromises confidentiality or the patient's autonomy, and yet the nurse is constrained to implement the plan. This "moral tension" is particularly acute in the case of end-of-life patients who may be intensively medicated at a time when the nurse feels palliative care would be more appropriate.

Such dilemmas are being studied by Assistant Professor of Nursing Connie Ulrich, PhD, RN, whose researchers began working in April with 3,000 nurses and social workers in four U.S. states to identify the ethical problems they

faced. The researchers are also examining the resources available for the discussion and resolution of ethical issues, and how those factors influence job satisfaction and retention. Dr. Ulrich believes the study – conducted jointly with the National Institutes of Health, Georgetown University and Inova, a healthcare system based in Fairfax, VA – is the first of its kind in the world.

The ethical issues are exacerbated by the worldwide nursing shortage which strains the ability of many nurses to provide the compassionate care that is an important determinant of patient satisfaction, Dr. Ulrich said.

The project follows earlier work by Dr. Ulrich with nurse practitioners in Maryland where many were found to be experiencing ethical conflict in their practices, indicating that their concerns were not being heard. That research also found 40 percent of the NPs were dissatisfied with their jobs, and that

nurses from 4 to 8 percent over the coming decade, that would pull an additional 100,000 nurses from both developing and developed countries abroad.

Figures for the number of nurses relative to population show developed countries already have a huge advantage over less-wealthy nations. The U.K., for example, has 847 registered nurses per 100,000 people, almost twice the rate in South Africa and some 13 times that of India.

Developed countries need to do more to grow a sustainable domestic supply of nurses, the researchers argued, noting that more than 11,000 qualified students were turned away from U.S. nursing schools in 2003 because of capacity limitations. The U.S. also deters some aspiring nurses because nursing education here is primarily financed by students themselves or their families, the authors reported.

In the U.K. and Ireland, healthcare managers are now dealing with the legacy of significant cuts in nursing education funding during the 1990s. "Sustained underinvestment in nursing education is a theme across countries that are now turning to aggressive international recruitment," the authors said.

They also argued that the nursing shortage in developed countries can be eased by a more efficient use of existing staff. Too many nurses are spending "an inordinate amount of time" doing non-nursing tasks such as delivering food trays and transporting patients to tests – practices that contribute to job dissatisfaction, burnout and high turnover rates, and reduce the quality of patient care.

Ethical guidelines on the recruitment of nurses from developing countries have the potential to address the

Dr. Connie Ulrich investigates ethical decision-making and its stressors.



ethical issues were an important contributor to the problem.

The current study is designed to "lead to a better understanding of the importance of ethical problems that nurses are facing in the workplace and how these problems influence satisfaction within the system," Dr. Ulrich said. "More importantly, it may help us provide interventions to mitigate concerns and retain qualified individuals within the healthcare system."

problem, but so far enforcement has been uneven, the paper's researchers reported.

"The world's nurse supply appears insufficient to meet global needs now and in the future," the paper's researchers reported. "Countries that use the most nurses should make the biggest investment in nursing education in both their own and developing countries from which they recruit nurses."

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Linda H. Aiken, Sean P. Clarke, Douglas M. Sloane, Julie Sochalski, Jeffrey H. Silber. "Hospital Nurse Staffing and Patient Mortality, Nurse Burnout and Job Dissatisfaction." *Journal of the American Medical Association*, 288(16):1987-1993, 2002.

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# ELIMINATING NEEDLESS CHILDHOOD



Dr. Edith Simpson investigates parental behaviors regarding child safety seats.

For more information on child passenger safety, see TraumaLink's website: [www.chop.edu/carseat](http://www.chop.edu/carseat)

There is little as arresting as a child in trauma. While television dramas may use childhood illness or accidents as sentimental heart-string pullers, in reality all too many children suffer needlessly from injury and disease. And these real stories are often even more wrenching than those on TV.

Through separate studies, three researchers at the University of Pennsylvania's School of Nursing are trying to limit avoidable childhood traumas. No complicated, intrusive, or dramatic procedures are required by the studies being conducted by Assistant Professor Edith M. Simpson, PhD, RN; Associate Professor of Health Care of

Women and Childbearing Nursing Diane L. Spatz, PhD, RN; and Associate Professor of Nursing and Miriam Stirl Term Professor in Nutrition Stella Volpe, PhD, RD, LD/N, FACSM. And while probably not gut-wrenching enough to make the evening news, each research effort is nevertheless important. If implemented, the suggestions from the studies by Drs. Spatz, Volpe, and Simpson would improve, possibly save, tens of thousands of children's lives.

## Child Booster Seats

### Edith Simpson, PhD, RN

Dr. Simpson was immersed in her dissertation on changing risky sexual behaviors for African American women when her researcher's eye was drawn to an everyday phenomenon – unrestrained children in motor vehicles.

As an emergency and trauma nurse who had seen children without seatbelt protection severely injured in car accidents, "I became impassioned," said Dr. Simpson. "I needed to know why this was happening." Her informal observations led to structured behavioral studies, where she sought to identify factors that could both explain and predict parental health-promoting behaviors that would better protect children riding in cars.

In certain ways, she said, this work is related to her previous HIV prevention research. "When you are dealing with another person, negotiation may play a key role in whether a healthy behavior will be performed or not performed," she said. "Women negotiate with their male sexual partners to use condoms. Parents have been found to negotiate with their children on safety behaviors' – such as the use of seat belts

# D TRAUMA

or belt-positioning booster seats. With automobile crashes a leading cause of death and acquired disability for U.S. children, parents should not have to negotiate with their children to use proper restraints, said Dr. Simpson.

According to the National Highway Traffic Safety Administration (NHTSA), children who weigh more than 40 pounds, are between four and eight years old, and less than four feet nine inches tall should use a belt-positioning booster seat, said Dr. Simpson. Belt-positioning booster seats lift children up so that the shoulder belt fits properly across the shoulder and chest and the lap belt fits low and snug across the hips and upper thighs. This type of child restraint should be used until the child can fit properly in an adult seat belt.

Dr. Simpson conducted her research with Associate Professor of Pediatrics Flaura Winston, PhD, MD, at the University and scientific director of TraumaLink, an interdisciplinary pediatric research center located at the Children's Hospital of Philadelphia. Drs. Simpson and Winston have found that the highest rate of inappropriate or less than optimal use of child restraints in cars was found among children between the ages of four and eight, children riding with African American and Hispanic parent drivers, and children riding with parent drivers who had no more than a high school education. When exposed to an automobile crash, these children experienced an increased risk of injury.

In order to understand how and why parents decide whether to use belt-positioning booster seats for children, Dr. Simpson is investigating parents' cultural, behavioral, normative, and control beliefs about these safety restraints. She is also investigating other influencing fac-

tors, barriers to booster seat use, and suggested intervention strategies to increase booster seat use. This study will be conducted using two waves of focus groups. The first battery of 16 focus groups will elicit beliefs, influencing factors, and strategies. The next 16 groups will explore parental insights on strategies generated by the first wave. This study, funded by the U.S. Department of Transportation, will be conducted among populations cutting across social, economic, and ethnic segments.

"We may find that inappropriate restraint of these children is due to economic barriers that could be solved with parents receiving additional information on how to acquire low or no-cost booster seats," said Dr. Simpson. "Other parents may need training in the parenting skills needed to promote the safety of their children."

"If we can effectively change parents' inappropriate child restraint use behaviors – such as the consistent use of belt-positioning booster seats for children who should be using them – we can reduce injuries and even save lives," she said.

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<http://www.nhtsa.dot.gov/CPS/>

## Breastfeeding

### Diane Spatz, PhD, RN

Dr. Spatz, a clinician educator at Penn Nursing, is trying to prevent illnesses in children around the world by increasing the adoption of a simple behavior: breastfeeding.

"There is a plethora of research on why breastfeeding makes a difference," said Dr. Spatz. "The longer women lactate, the better it is for both the child and for the mother."

For the baby, the list of benefits is long, reports Dr. Spatz. Overall there is a decrease in infection – ear, gastrointestinal, urinary, respiratory and more – because human milk contains white blood cells that fight infection and disease. Also, breast milk is more nutritional because it is easier to digest, so that each component of the milk is readily usable in the baby's system. In addition, breast milk contains free-fatty acids, which are a source of nutrition and act as anti-microbial and anti-bacterial agents. No ready-made formula will ever compare, said Dr. Spatz.

For the mother, breastfeeding decreases risk of post-partum hemorrhage, Dr. Spatz said. After a mother has a baby, her uterus has to contract.

*(continued on page 10)*





Dr. Diane Spatz advocates breastfeeding

(continued from page 9)

When a mother breastfeeds, her body produces oxytocin, which contracts the uterus, helping her get back to a non-pregnant state. Breastfeeding also decreases a woman's risk of later breast cancer and osteoporosis. When a woman breastfeeds, her bones become less dense, said Spatz, but after she stops, they re-mineralize.

Further, though there is only anecdotal evidence, Dr. Spatz said she believes there is a better bond formed between mother and child the longer breastfeeding takes place.

The World Health Organization recommends breastfeeding for two years, but Dr. Spatz agrees with the more modest goal of the American Academy of Pediatrics, which recommends mothers breastfeed exclusively for six months and part-time for a year.

American women breastfeed for a shorter time than others around the world. This is due to a variety of reasons from cultural and workplace issues to lack of knowledge about the advantages of breastfeeding. Dr. Spatz's research is designed to help extend the

time women breastfeed by providing research-based support and care. She is particularly concentrating on babies with low birth weights and other vulnerable infants, such as those born with congenital anomalies, since these infants may benefit most from human milk. "When we are able to intervene and teach how best to continue breastfeeding, the baby's stay in the hospital has been decreased," she said.

The profile in the United States of a long-term breastfeeding mother is still a white, well-educated, higher-income woman, said Dr. Spatz. "We need to find how to get resources to low-income women," she said. "There are many reasons low-income and minority women don't continue. It could be cultural – if my mother and grandmother didn't do it, I won't. It could be that they have to go back to work in an environment where it isn't easy to continue."

Currently, most low-income American women do not have access to equipment that can extend the time they breastfeed, such as hospital-grade electric breast pumps or Baby Weigh Scales, a special scale designed to measure milk intake at the breast, important for vulnerable infants. Such equipment is not covered by insurance. In addition, women in the United States often have difficulty finding a healthcare professional trained in breastfeeding.

"But if we can just find ways to make it easier, to get a breast pump, a scale, some nursing to that population, we will impact the health of more children," she said.

#### Childhood Obesity

### Stella Volpe, PhD, RD, LD/N, FACS M

Dr. Volpe's research is aimed at making children healthier, too. She has long been concerned with nutrition and how it affects the health of young people. Since attending the University of California at Berkeley, she has worked with mineral metabolism and nutritional supplements, particularly their effects on female athletes. Her research has been conducted independently and with Gary Foster, PhD, an associate professor at the University of Pennsylvania School of Medicine and Clinical Director of the Weight and Eating Disorders Program.

Dr. Volpe's work has led her to study the shocking recent increase in childhood obesity, targeting behavior modifications in pre-teen and middle-school children. "It is typically more difficult to change behavior as time goes on, so it is very important to do it as early as possible," said Dr. Volpe.

For one thing, she said, when people become obese, physiologically their fat cells increase in number, never to go away. Thus, an overweight child is more likely to be overweight as an adult because of the development of these fat cells early in life.

Early childhood obesity is not "the only reason" youngsters become overweight, but it does contribute, she said. "Even in children, obesity leads to other diseases, like Type II diabetes."

Drs. Volpe and Foster are working with physical education teachers to study whether an increase in vigorous

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physical activity by children in gym classes will lessen their chances of getting Type II diabetes.

Dr. Volpe is concerned that children and adolescents may be developing poor dietary habits. "We see overweight children, but where it is really striking is with adolescents," she said. "We need to improve their lifestyles so they don't gain weight.

"We're not telling kids to run three miles every day, but to do some exercise and eat more fruits and vegetables," she said. "You can't take away their choices, but you can help them make better ones."

In another study, Dr. Volpe is looking at the infamous "freshman fifteen," the amount of weight freshmen college students often gain. She will be monitoring the food eaten by male and female students over the next two years at an unidentified local college where smaller portion sizes will be served by the school's food service.

"We hope the results will show that reducing portion sizes will prevent weight gain often seen during freshman year," Dr. Volpe said. In other words, are the students eating more because they want to or because they are eating what they are served?

"You don't need to become a marathon runner to improve your health and control your weight," she said. "That's not what we are out to do. A child, especially, does not and should not need to be on a diet. But eating 100 fewer calories a day or expending 100 calories of energy a day can change a behavior for life. If we can change that behavior, we will have a lot more healthy people."

Dr. Stella Volpe works to decrease adolescent obesity.



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# ENVIRONMENTAL THREATS TO AD



The profession of nursing has always been cognizant of the importance of the environment on human health. Today, technology, agriculture, population growth, urbanization and many other developments have spawned new environmental health hazards. Fortunately, nursing researchers and their multidisciplinary partners are documenting the nature and impact of these environmental threats to find ways to address them.

At the School of Nursing, faculty members are pursuing research projects that promise to improve health and quality of life for victims of violence and workers in hazardous job environments. Faculty members are also educating new nurses to safeguard the health of working populations, including the health of nurses themselves.

## Decreasing the Toll of Gun Violence

### Therese Richmond, PhD, FAAN, CRNP

As a critical care nurse caring for scores of patients with gunshot wounds, Therese S. Richmond, PhD, FAAN, CRNP, Associate Professor of Trauma and Critical Care Nursing, wondered how she might help to stem ever-mounting gun violence.

“We have chosen to live with guns in our society,” said Dr. Richmond. “Given that, how can we reduce the negative impact of guns in our lives? As nurses, it’s not enough for us to simply treat patients; if we don’t prevent the same injury from happening again, we’re not doing our jobs.”

Dr. Richmond decided to fight the epidemic of gun violence with a broad-based program of interdisciplinary research. In 1997, she joined with C. William Schwab, MD, chief of Penn’s Division of Traumatology and Surgical Critical Care, to establish the Firearm Injury Center at Penn (FICAP). The Center, funded by the Joyce Foundation, collects data, improves understanding of the factors leading to gun violence, and will ultimately develop interventions to curb the problem.

FICAP brings together researchers in nursing, medicine, epidemiology, criminology, demography, and other diverse disciplines that have not tradi-

# ULTS: Reducing Risk through Research and Education

tionally collaborated. “Gun violence is a complex social problem,” said Dr. Richmond. “We can’t expect to make progress without all of the disciplines involved bringing their specialized expertise to the table.”

According to Dr. Richmond, interdisciplinary research is “the wave of the future” and nurses are uniquely well positioned to bring diverse disciplines together. “Nurses are especially skilled in building relationships and weighing various points of view,” she said.

In her research, Dr. Richmond gathers data directly from survivors. “Being a nurse informs the questions I ask patients,” said Dr. Richmond. “We talk about the day of the injury and the sequence of events that led to the shooting episode. As a nurse, I know these survivors have a wealth of information that can help us design interventions to decrease the impact of gun violence.”

In their work, Drs. Richmond and Schwab cast gun violence as a public health problem, not a political issue. “Our work is neither pro- nor anti-gun,” said Dr. Richmond. “We are changing the dialogue about guns by asking people to view this as a health matter rather than a political tug of war.”

Using this public health framework, Drs. Richmond and Schwab describe the violent event as one in which the environment, the gun, the shooter, and the victim come together to create an injury. “Graphing the incident in this way makes it clear that this is a multifaceted problem – not one that can be solved by simply taking guns away,” said Dr. Richmond.

The interdisciplinary team is exploring various approaches to control the problem. “We’re investigating behavioral interventions that might keep the victim out of high risk circumstances,” she said.

“We’re also studying whether our associates in criminology can keep guns from getting to known perpetrators, or if our technological colleagues can design personalized weapons that cannot be used by anyone other than the owner.”

FICAP data have highlighted the predominance of guns in completed suicides. “Suicide by gunshot is typically so successful that these victims never make it to the hospital,” said Dr. Richmond. “Because we don’t ‘see’ them, the role of firearms in this form of violence isn’t even on the radar screen for most healthcare professionals.”

Dr. Richmond said that her work with victims of gun violence has changed her worldview. “It’s easy to judge those involved in gun violence as having made a ‘bad choice.’ But after hours of interviews with survivors, you begin to understand that not everyone benefits from the same array of life choices. Given their life circumstances, many of these patients have made the best of all possible choices available to them.”

Because the profession of nursing deals with human responses to illness and injury, Dr. Richmond also felt compelled to study the plight of injury survivors. “Nurses want to know how a patient’s response to injury affects them long-term and how we can help to promote an optimal recovery.” She is currently the principal investigator of a five-year National Institute of Mental Health study entitled “Major Depression Following Minor Injury.” The purpose is to investigate the development of major depression and related psychiatric disorders following injury and to examine their effects on outcomes.

Dr. Richmond is enrolling 250 injured patients and following them for one year. “Our hypothesis is that injured

people who become depressed will develop a disability,” she said.

“Preliminary findings indicate that symptoms of depression frequently accompany injury – often out of proportion to the severity of the physical damage suffered.”

The study, now concluding its second year, has revealed that recovery is a complex process. “In the hospital, we treat patients who get better and are discharged,” said Dr. Richmond. “But it’s not enough to say, ‘You’re fine; go back to your life.’ Survival is not synonymous with recovery. We’re just beginning to understand the complex process of recovering from injury.”

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## Firearm Deaths

United States, 2001\*

Age	No. of Deaths
0-9 years	160
10-19 years	2,777
20-64 years	22,253
>65 years	4,364
Age unknown	19
Total	29,573

\* Source:

CDC National Center for Injury control and Prevention.

Web-based Injury Statistics Reporting System [WISQARS] Available at [www.cdc.gov/ncipic/wisqars/default.htm](http://www.cdc.gov/ncipic/wisqars/default.htm)





## Adolescent Farm Workers/Pesticide Exposure

### Linda McCauley, PhD, FAAN, RN

Nightingale Professor of Nursing Linda McCauley, PhD, FAAN, RN, has a distinguished research program in the study of environmental and occupational threats to health. In the aftermath of the Gulf War, Dr. McCauley undertook research, funded by the U.S. Department of Veterans Affairs and the U.S. Department of Defense, to study health effects among deployed troops from multiple exposures to hazards such as pesticide and nerve gas.

That work has led Dr. McCauley to a recent study on the health impact of pesticides on agricultural workers and their families. Of the nearly 2.5 million seasonal and migrant farm workers in the United States, seven percent are age 17 and under. Adolescent workers, in a vulnerable stage of growth and development, may be at increased risk for pesticide-related illness, and more than half of all these workers are exposed to pesticides. Her research in this area has ranged from the effects of pesticides at the basic cellular level to policy decisions governing worker safety.

The extent of pesticide-related illness in this disadvantaged, medically indigent population is not known. Disorders related to exposures range from acute reactions such as rashes, nau-

sea, and eye irritation to chronic problems such as cancer, neurological disease, fetal deformity, and fetal death.

In 1996, Dr. McCauley, who is also Associate Dean for Nursing Research, began a study of adolescent farm workers using focus group interviews to elicit their perceived vulnerability to illness, attitudes toward farm work, knowledge of occupational hazards, and preventive health practices.

“For these young workers, getting sick was viewed as an inevitable part of the job,” said Dr. McCauley. “Many were reluctant to wear layers of protective clothing in the heat. Even when adequate decontamination facilities did exist, many did not feel comfortable taking the time to use them.” Overall, added Dr. McCauley, immigrant status led the young workers to feel powerless which prevented them from asking for needed supplies, information, and instruction that could have reduced exposure.

In addition, natives of Mexico and Central America traditionally place a high value on working to support their families back in their native countries, which leads them to ignore personal health consequences. “These adolescents are willing to neglect their own needs for a ‘greater good,’” said Dr. McCauley.

In 1992, the Environmental Protection Agency revised the Worker Protection Standard to increase worker safeguards against pesticide exposure,

among them, mandatory safety training. However, Dr. McCauley’s research indicates that, when provided, this training may not always be well understood.

“Our first challenge is to provide training materials in Spanish as well as English,” said Dr. McCauley. “Since many farm workers speak indigenous languages, we must also translate these materials into multiple oral dialects. Then, we can work on fine-tuning the content to meet the educational needs of these adolescents.”

This nurse-led interdisciplinary research program, funded by the National Institute of Occupational Safety and Health and the National Institute of Environmental Health Sciences, includes neuropsychologists, chemists, community members, agricultural specialists, and molecular biologists, among others. Dr. McCauley employs a participatory-based research model that involves community groups serving this population, such as the Migrant Education Program and the Oregon Child Development Coalition. Guiding the study is an advisory committee of growers, farm workers, scientists with pesticide expertise, and healthcare providers caring for the migrant community.

“The health problems of the next century demand interdisciplinary research and nurses are well positioned to conduct it,” said Dr. McCauley. “Nurses have a broad educational back-



ground, holistic assessment skills and are trained to view a problem from many different vantage points. You can't simply consider policies on the application of pesticides when individual risk factors and behavioral factors are also involved. Nurses consider all of these factors and can frame research results to appeal to various audiences such as politicians, health professionals, farm workers and others."

Her latest research project will focus on "Biomarkers of Oxidative Stress." A biomarker is a measurement that reflects an interaction between a biological system (human being) and environmental agent (pesticide). Dr. McCauley will look for the presence of metabolites in the urine of those exposed to pesticides and compare these to markers of DNA damage. Her work will also compare effects noted between adolescents and adults. This will provide new knowledge on the ability of pesticides to cause cancer, neurological diseases, and cardiovascular disease.

"Pesticide use is worldwide and the public desire for inexpensive food is a major driver of their use," said Dr. McCauley. "With pesticide use, we can buy apples for 69 cents a pound. Organic farming remains a more expensive alternative to the agricultural use of chemicals. Research, prevention programs, and safety standards are imperative to safeguard both our environment and the public health."

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## Educating Advanced Practice Nurses About Environmental Exposures

Kay Arendasky, CRNP, MSN

Advanced Practice Nurses are often the first and sometimes the only source of care for those suffering from injury or illness caused by environmental hazards. As a result, nurses have a major role to play in identifying environmental hazards and implementing primary prevention strategies.

In her Master's level Occupational Environmental Health Option, Kay Arendasky, CRNP, MSN, the School's Option Director, relates a true story about a former student, also a nurse, who had given birth to two children with birth defects. Unfortunately, although the young mother had asked pertinent questions connecting her husband's occupational lead exposure to the congenital defects, she did not receive accurate information. This shows, said Ms. Arendasky, that without specific knowledge about environmental exposures and their effects, a practitioner is unable to identify an environmental exposure health risk.

Nurses must be alert to threats that occupational and environmental hazards pose to women and their reproductive health status. "There is often a fine line between the therapeutic value of work versus the health or toxic threat generated by exposures because of work," said Ms. Arendasky, noting that 60 percent of women work outside the home. "Without preventive measures, we can see decreased fertility, congenital and developmental abnor-

malities resulting from exposures before conception or during prenatal development. Fetal death, miscarriages, structural anomalies, functional deficiencies, and growth abnormalities are some of the health consequences."

Chemical hazards (lead, mercury, solvents), and physical hazards (noise, musculoskeletal stresses, extreme temperatures) are addressed in class and clinical experiences. "Often legal standards are not simply based on health considerations," she said. "Instead, they can be negotiated using a cost-benefit analysis. The resulting standards can be little more than legal and political compromises."

Nurses practicing primary prevention must offer adequate environmental exposure information to the public. A full occupational/environmental history is rarely recorded, she noted, potentially leading to misdiagnosis, particularly if the patient smoked. "When was the last time your doctor asked you about all of your previous jobs, exposures or about the health of pets living in your household?" she asked.

"When we study environmental issues, we look at air, soil, and water. Humans via inhalation, ingestion, and absorption absorb toxins from these sources. Risks are present in our daily life so should be our awareness of these risks and specific avenues for prevention."

Kay Arendasky on a work site.



# INFLUENCING LONG-TERM CARE...

From their origins in the 1880s, home care agencies have grown and become widely accepted options for helping older adults remain independent in their own homes.

More than 20,000 home care agencies serve nearly eight million American patients, according to the National Association for Home Care and Hospice.

Two University of Pennsylvania School of Nursing professors have launched research initiatives with Pennsylvania and New York home healthcare agencies to improve home care. The first project is led by Associate Professor of Nursing Kathryn H. Bowles, PhD, RN. With a team of researchers, Dr. Bowles will measure whether telehealth technology can increase patients' ability to stay out of the hospital and if the type of equipment used alters outcomes. The research takes place at seven home-care agencies throughout Pennsylvania.

The second research effort is spearheaded by Assistant Professor Karen Schumacher, PhD, RN, the first Beatrice Renfield Visiting Scholar at the Visiting Nurse Service of New York (VNSNY). Dr. Renfield, an advocate for nursing and home care, established the visiting nurse scholar program at the VNSNY in 2003 to research, develop and disseminate new models of home-care nursing practice and education.

## Telehealth

### Kathryn Bowles, PhD, RN

Dr. Bowles' original telehealth experience began as clinical coordinator of a study with homebound diabetics that concluded in 2000. That research, led by Kathryn Dansky, PhD, from Penn State University, found that telehealth visits improved patients' self management, saved money by preventing emergency

visits, and could decrease the number of in-person nurse visits, enabling the professional caregivers to reach more patients daily. Patients and nurses both viewed the technology favorably.

Drs. Bowles and Dansky teamed up again on a study funded by the Robert Wood Johnson Foundation to investigate heart failure patient outcomes, comparing patients using two different types of telehealth devices against a control group receiving only in-home nursing visits. The patients using telehealth tools also receive some in-home nursing visits. The team began enrolling patients last year and hopes to accrue 700 for this study, which is the first of its kind, Dr. Bowles said.

"One challenge is getting patients to enroll in a research project," Dr. Bowles said. "It's one more thing to deal with, especially for patients who feel very sick. Another challenge has been patients who really want the machine and are not willing to take the chance of being in the control group."

Both telehealth devices aid in remotely obtaining vital signs, pulse oximetry, and weight. The first device has a screen and microphones, allowing the nurse to talk the patient through each step of data collection and to reinforce teaching. The second device prompts the patient to take his or her blood pressure, oxygen saturation, weight and medications. This device sends the data back to the nursing agency with an alert to the nurse if anything falls outside prescribed parameters.

"Does the video unit present more opportunities for teaching patients self-management skills than the other machine? Or does the patient being responsible for using (the second device) daily make him more knowledgeable and interested in managing his own health?" asked Dr. Bowles. "We don't know yet – that is one of the things we hope to discover."

Participating home-care agencies assign patients randomly to the telehealth intervention or control group. Which telehealth device each patient receives depends upon what is available at each agency. Patients test the telehealth tools for 60 days. The referring physician must agree to the patient's participation in the telehealth research.

In a later stage of the study, the team will interview the physicians about their attitudes and intentions to use telehealth. In the future, Dr. Bowles and colleagues plan to conduct a separate cost-efficiency analysis of telehealth used in home care under a prospective payment system.

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## Karen Schumacher, PhD, RN

Since becoming the VNSNY's first Visiting Scholar, Dr. Schumacher has collaborated with VNSNY researchers, nursing leaders and frontline clinical staff to identify key issues in home care and to develop goals for the two-year partnership.

One aim is increasing nurses' knowledge about home-care research. With this in mind, Dr. Schumacher and Joan Marren, chief operating officer for VNSNY, wrote a paper about the state of the science of home-care nursing and the clinical implications of recent research. The paper is scheduled for publication in *Nursing Clinics of North America*.

Another goal of the Visiting Scholar program is to ease nurses' entry into home-care practice. VNSNY had already established a yearlong internship program for new BSN grads, which several Penn graduates have successfully completed. Dr. Schumacher is identifying potential new interns and consulting about enhancements to the program.

"Interns in this innovative program are gradually brought into the role of the home-care nurse, receiving a lot of guidance from a preceptor," said Dr. Schumacher. "It's very teaching intensive. They are not making visits on their own until the preceptor feels they are ready."

For the existing VNSNY staff, Dr. Schumacher is planning visiting professor educational sessions at various locations throughout the agency's wide-spread system. Penn faculty will share evidence-based findings applicable to the nurses' current practice.

"It will be very gratifying to do this project," Dr. Schumacher said. "It will help nurses implement research into daily practice."



# ... CULTURE CHANGE

**For years, nursing homes have provided institutional care focused on completing tasks – feeding, dressing, medicating and other caregiving activities. Recently, some leaders in the nursing home industry have begun to change the culture of their facilities to enhance the residents' quality of life by providing choices about care and a more homelike environment.**

In an unusual partnership, a University of Pennsylvania team, led by two School of Nursing investigators, collaborated with for-profit nursing home industry giant Beverly Enterprises to evaluate Beverly's early efforts to change the culture at three of its nursing facilities and compare them to three traditional Beverly homes, matched for size, location and leadership.

### Evaluating the Culture Change Model

## Lois Evans, DNSc, FAAN, RN and Cynthia Scalzi, PhD, FAAN, RN

The Penn research team was led by Lois K. Evans, DNSc, FAAN, RN, Viola MacInnes/Independence Professor in

Nursing and Division Chair for Family and Community Health, and Cynthia Scalzi, PhD, FAAN, RN, Associate Professor in Nursing and the Wharton School and Director of the Administration and Leadership Graduate Programs. The two other research team members were Alan Barstow, PhD, an organizational anthropologist in the School of Arts and Sciences; and nursing graduate student Katie Hostvedt.

Beverly, one of the largest U.S. providers of nursing-home care, operates 452 skilled nursing facilities and 29 assisted living centers in 26 states and the District of Columbia. Beverly began piloting culture change about a year before the study began. Beverly funded the study.

*(continued on page 18)*

(continued from page 17)

While it is somewhat unusual to partner with a for-profit entity, Drs. Evans and Scalzi viewed the joint effort as a unique opportunity to pilot their research design and instruments and also positively affect nursing-home care.

“Resident Centered Elder Care is one of the most important initiatives (at Beverly,” said Blaise Mercadante, PhD, Beverly senior vice president of marketing and new business innovation. “We are looking to fundamentally deinstitutionalize the nursing-home experience. We needed a credible, outside objective opinion on what we’d accomplished and what we still had to achieve.”

Drs. Evans and Scalzi found not only significant differences between Beverly’s three culture-change facilities and the three operating under a traditional approach, but also saw opportunities for further improvement in the culture change model. The team recommended changes before the company expanded its Resident Centered Elder Care program to additional facilities. Beverly began implementing the Penn researchers’ recommendations almost immediately.

“The information we provided was very important, and they definitely used it,” Dr. Scalzi said. “It is so exciting to see your research findings translated into actions so quickly.”

A few nursing homes across the country have begun changing their culture to empower residents and staff, to enable older adults to have choices about their care, and to live in more home-like environments. Culture change focuses on relationships, people and personal preferences more than on completion of tasks. Many different models of change exist, mostly in independent homes.



“Beverly is such a large provider, if they continue to implement Resident Centered Elder Care, it will take the industry by storm, because it will be ‘the thing to be doing,’” Dr. Evans said.

“Normally, it takes 10 to 15 years for research to be put into practice,” said Dr. Evans. “We did this study in seven months, and they immediately began implementing some of our findings.”

The professors brought different expertise to the project. Twenty years ago, Dr. Evans’ pioneering research reduced the use of physical restraints in nursing homes, changed nurses’ perception of the practice, altered public policy and brought international attention to the physical and psychological harm for patients. Once advanced practice nurses worked with staff to identify and implement alternatives to restraints, previously restrained residents began to talk and behave more normally.

“It became clear we could improve quality of care by removing restraints, but quality of life still had a long way to go,” Dr. Evans said. “Once we began to see what nursing homes really looked like when residents were unrestrained, other needs came to the forefront.”

Long a proponent of the importance of values in shaping organizational behavior, Dr. Scalzi’s interest in culture change in nursing homes developed after observing the care of a family member admitted to a nursing home. Although her aunt lived in a highly-rated facility, Dr. Scalzi became convinced a better way of caring for elders must exist.

The Penn research team began its investigation of Beverly’s culture-change program by walking through the facilities with clipboards and standardized instruments, noting quality indicators on the floors, in dietary, therapy, the bathrooms and common areas. They then compared observations and reached a consensus rating for each area.

Next, they gave two instruments to all levels of staff and rewarded each employee who completed the survey with a \$10 honorarium. They received 271 completed questionnaires.

The researchers followed up in two-person teams to conduct interviews with staff and family members, spending about nine hours at each facility. Staff members seemed quite

receptive to participating, with 132 agreeing to interviews. Twenty-one family members also participated. The short time period between receiving the grant and the promised date delivery date precluded obtaining institutional review board approval to talk with residents.

“We used a lot of the qualitative interview data to substantiate our findings from the instruments,” Dr. Scalzi explained. “We were meeting our research goals and at the same time we were meeting Beverly’s objectives.”

In all three of Beverly’s culture-change facilities, Penn researchers found good communication between employees and residents and a calm, homelike environment. In addition, residents enjoyed greater physical comfort and privacy, had more choice, and their relationships with friends and family were respected and preserved.

In one of the homes, however, more remarkable progress was noted. There, residents were involved in volunteer jobs and activities they found satisfying. For example, residents were provided assistance when they left the facility to tend to personal affairs or to visit a hospitalized roommate.

Some families had moved residents from a traditional to a culture-change facility because of the more consistent staffing with the same caregivers and a sense of community. One daughter called her mother’s two months at the culture-change facility the best during her five years in a nursing home.

The Penn research team found that staff members appreciated the team environment in culture-change facilities. They were significantly more likely than associates at the traditional homes to recommend their facility to families and

to peers as a good place to work. The management teams were learning how to let go and to empower staff to make decisions and problem solve.

But the Penn researchers also found opportunities for improvement. Culture change takes time. To effectively alter the environment for nursing home residents, all staff must be included in the training process. During the initial rollout at Beverly, education focused at the leadership level. Nurses, therapists, and aides did not receive the same level of training in culture-change practices.

The study also showed that nurses spend much of their time on tasks – medication administration, treatments, wound care – that only they are licensed to provide. They often do not have the time for sitting and talking with a resident, one of the more enjoyable aspects of working in long-term care. Nurses also provide a crucial link between executives and caregivers.

“Nurses carry out a vital role in the care of residents and are the more educated of the staff, yet were not being utilized to their potential,” Dr. Scalzi said.

The Penn team believed strongly that no one group should be left out of the initial training and that all levels of workers on all shifts should eventually be included in preparation for culture change. The Beverly executive team plans to include nurses and others in future training sessions.

“They were not aware they had left this group behind and now are making an effort through working with nurses to redefine what nursing should look like in a resident-centered care environment,” Dr. Scalzi said. “I suspect nurses’ job satisfaction will

increase by giving them more opportunity to work with residents and families rather than just tasks. They are definitely people who would like to do more than is being asked of them.”

Initially, Beverly referred to its traditional nursing-home culture as a “medical model” and called the new culture-change approach a “social model.” The Penn researchers recommended that the term “medical model” be replaced by “institutional model,” a phrase they felt more accurately reflected what needed changing in the traditional approach, particularly since, under any model, residents would receive needed medical care. Beverly has updated the language to reflect this change on its web site and in internal documents.

“We saw what was needed as an integration of the medical, social and business models, rather than a movement from one to another,” Dr. Scalzi said.

“While not all findings were positive, we tried to provide an objective assessment of what was working well and what was not,” Dr. Scalzi said. “The Beverly executive team was very receptive to the actions suggested, and many have since been implemented.”

Dr. Evans does not want to wait another 20 years for the next major improvement in longterm care to become reality. The Penn nurses will continue researching culture change and quantifying its effect on outcomes.

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# EXCHANGING IDEAS Nationally and Internationally

## Dean's Lecture Series

Friday, September 26, 2003

*Improving Patient Safety: Using Information Technology?*

David W. Bates, MD, MS

Tuesday, December 2, 2003

*Knowledge Development and Diversity: The Ethics and Art of Creating Disclosive Spaces*

Patricia E. Benner, PhD, RN, FAAN

Tuesday, January 20, 2004

*Healthcare Reform in Pennsylvania: A One Year Retrospective – Lessons Learned and A Focus Sharpened*

Rosemarie Greco

Monday, March 22, 2004

*Health Disparities and Health Literacy: Making the Connections, Answering the Challenge*

Vice Admiral Richard H. Carmona, MD, MPH, FACS  
United States Surgeon General

Thursday, April 8, 2004

*Unequal Treatment: Does Cultural Competency Matter?*

Joseph R. Betancourt, MD, MPH

## Distinguished Lecture Barbara Medoff-Cooper, PhD, CRNP, FAAN, RN

Second Annual Claire M. Fagin

Distinguished Research Award,

April 15, 2004

Dr. Medoff-Cooper's major accomplishments include the development of the Early Infancy Temperament Questionnaire and the development of the Medoff-Cooper Infant Feeding Apparatus, potentially providing evidence that early feeding behaviors are related to developmental outcomes.

Major research findings include:

1996:

The association between poor feeding and poor developmental outcomes, published in *Nursing Research*.

2000:

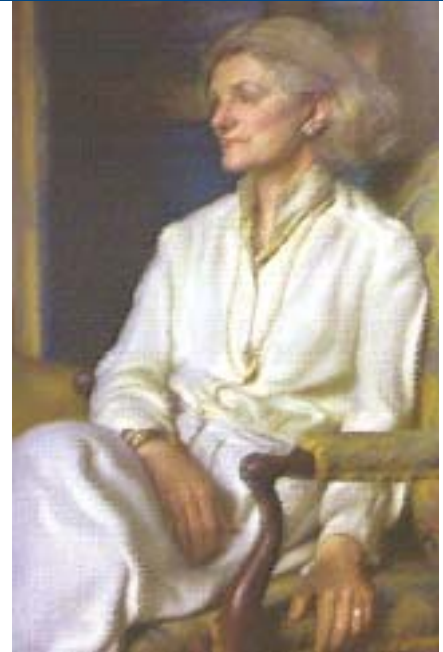
A positive relationship between increasing gestational age at birth and feeding organization, published in *Maternal Child Nursing*.

2001:

A distinct pattern of maturation in feeding behaviors as post-conceptual age increases, published in *Infant Behavior and Development*.

2002:

Objective measurements and analysis of feeding behaviors made possible through development of the Medoff-Cooper Feeding Monitoring System, published in *Journal of Developmental and Behavioral Pediatrics*.



Claire Fagin, PhD, FAAN, FRCN, RN, is the Leadership Professor Emeritus and Dean Emeritus of the University of Pennsylvania School of Nursing, having received numerous honors, including being named a "Living Legend" by the American Academy of Nursing in 1998.

## Excerpts from Dr. Barbara Medoff- Cooper's Presentation

It is truly an honor to be the second recipient of the Claire Fagin Research Award. I will share how this program of research developed and how the findings of each project sparked the next. But mature programs of research can only happen with wonderful teams and great mentors.

Three amazing mentors have shaped my life, creating new spaces for other women and for new knowledge. Claire Fagin developed the idea of the nurse scholar. Ellen Fuller found new pathways in cardiovascular basic science, and Maria Delivoria-Papodopolous translated basic science in neonatology into clinical practice.

One of the joys of my research is how I feel absolutely in love with

children. From the first time I cared for them, specifically premature infants, I wanted to make a difference in their lives, particularly those born less than 1,000 grams or about two pounds at birth. Just one decade before my practice began, these infants often did not survive.

Frustrating for me as the primary care provider, as well as for their families, was our lack of knowledge of how these high risk infants would develop or why they presented such parenting challenges. Those questions led me to frame my doctoral program.

Determined to know more about the antecedents of both the difficult temperament and slow development, I looked for underlying causes, the neurodevelopment of these most at-risk infants in their earliest days. In the Robert Wood Johnson Clinical Scholars program, we studied the brain in two ways: first, brain metabolism with nuclear magnetic resonance

(NMR) spectroscopy and, second, with a daily clinical neurobehavioral assessment. We were able to demonstrate that healthy preterm infants had significantly different brain metabolism than infants who had experienced an intraventricular hemorrhage who also showed a specific pattern of abnormal neurological findings.

Feeding behaviors in young infants seemed associated with brain integrity, but there was little information linking feeding to developmental outcomes. Those early days of research supported by small pilot funds have since been followed with three National Institutes of Health (NIH) grants, which have generated many important clinical findings.

Feeding was very different between the two preterm and full term infants. Measuring sucking behaviors across gestational ages produced empirical data that demonstrated infant feeding patterns changed with both maturation and experience. Most important-

ly, from the early studies we showed that we could reliably measure feeding behaviors in both very immature preterm and full term robust infants, establish norms for feeding behaviors, and lastly, that both maturation and experience mattered.

In behavioral investigations, we introduced the Early Infant Temperament Questionnaire (EITQ) to measure behavioral style in very young babies. Since those early days, the EITQ has been published quite a few languages and used internationally. With additional NIH funding we discovered that all premies are not the same. The most immature preterm infants – those born between 24 weeks and 27 weeks – were different from those more mature, even if preterm, and did not “catch up” to term infants when they reached 40 weeks. In addition, those infants with more organized feeding skills at 40 weeks reached higher developmental markers at 12 months of age. Giving infants earlier feedings and more frequent bottle feedings had an influence on feeding behaviors at term.

With funding from the National Heart, Lung, and Blood Institute, I further developed norms on a sucking machine to discern these behaviors by looking at both healthy and sick infants. Those infants with congenital heart defects were both full term but not feeding or growing well. We did not know whether poor feeding failed to sustain growth or whether these infants needed more calories. Other factors confounded the investigation, such as length of time on cardiopulmonary bypass, or the complexity of the defect.

*(continued on page 22)*



(continued from page 21)

These questions served as the basis for the third major research grant. This project is the first to measure both feeding skills and energy requirements in a large group of infants with very complex heart disease (CHD). We are measuring total energy expenditure, sleeping energy expenditure, and body composition with the most up to date, high tech monitoring system, available at only a very few institutions. Our study is the first of its kind to provide a comprehensive picture of how newborns grow following CHD surgery.

We have provided evidence that infants can safely feed as early as 32 weeks post-conception, that maturation of feeding behaviors is a way to evaluate maturation of preterm infants, and that feeding behaviors should help direct discharge plans. Infants that do not feed well should not be sent home before we discover the reason for poor feeding.

For the infant with CHD, our goal is to find ways to help them grow in order to prevent insertion of a permanent feeding tube and a diagnosis of "failure to thrive." If we can figure out the puzzle of why they do not eat and what are their energy demands post-surgery, we may be able to have a major impact on care for future generations of infants with complex heart defects. We know that CHD is not going away, but we can improve the quality of growth and development of these vulnerable infants.

## U.S. Surgeon General Speaks at Penn Nursing



The nation's top doc, U.S. Surgeon General Richard Carmona, brought his message of health promotion and health literacy to Penn Nursing. What might be less well known is that Vice Admiral Carmona, MD, MPH, FACS, is the nation's top nurse, too.

Dr. Carmona's medical career began in the unlikeliest of ways when he dropped out of high school to join the Army. Becoming an Army medic, Dr. Carmona later went on to become a paramedic, nurse, physician, and surgeon, before being tapped by President George W. Bush to the nation's top medical post.

Noting that medicine and nursing have different approaches to the patient, Dr. Carmona noted of himself, "You're never a former nurse. It stays in your fabric." He credited nurses for being "tenacious patient advocates."

In his own career, Dr. Carmona now advocates for the nation's most vulnerable patients by using his post as a "bully pulpit" to push health promotion for the poor and disenfranchised. He noted that this current emphasis on health promotion across the varied cultures in the United States springs from his own impoverished upbringing in a housing project in the South Bronx in New York City where he was greatly influenced by his tiny Spanish-speaking grandmother who reared a flock of children.

"This is not just an academic discussion to me," he emphasized, exhorting the standing-room only Penn Nursing crowd to shift the emphasis in healthcare from treatment to prevention. Noting that the poverty of his own childhood prohibited doctors' visits except in dire emergencies, Dr. Carmona said his grandmother cooked with lard, thinking it was the right thing to do, and used home health remedies, thinking this was her only option to care for her family. Many people today behave similarly, he said, urging students and professionals to consider cultural imperatives and reduced finances when talking with patients about preventing disease. "We have a world within our world that is represented by health disparities," he said.

This means that many preventable problems continue to increase. The incidence of obesity is growing rapidly, particularly among the nation's youth, quickly overtaking smoking as the leading cause of illness. Currently, 15 percent of the gross national product is spent on healthcare with nine million children already classified obese. "If we don't do something to break that cycle, it's going to break the bank," Dr. Carmona said.

What is needed, he said, is cultural competence among purveyors promoting healthy lifestyles. That produces health literacy for all Americans, regardless of cultural imperatives. "The legacy we as health professionals want to leave this country is prevention," said Dr. Carmona.



## Visiting Scholars

Since coming to the School of Nursing in 2002, Dean Afaf I. Meleis, PhD, DrPS (hon), FAAN, has increased the international visibility of the school with visiting international scholars and increased international cross-fertilization through more keynote addresses abroad. Here is a brief look at some of the views expressed by the 2003 International Scholars in Residence, Simon Stewart of Australia and Sabina De Geest of Switzerland, as they addressed Penn Nursing.

### Simon Stewart

Simon Stewart, PhD, FESC, FAHA, RN, the National Heart Foundation of Australia's Professor of Cardiovascular Nursing at the University of South Australia and Professor of Health Research at the University of Queensland, Australia has focused his research on developing new models of care for patients with congestive heart failure and is particularly interested in investigating the effect nursing has on the patients. Dr. Stewart has designed a home-based program of care for these patients and helped to establish the world's first city-wide Heart Failure Nurse Liaison Service in Scotland.

"Where should nurses be most active?" Dr. Stewart asked. Answering his question, Dr. Stewart exhorted the crowd of standing faculty to take action when conventional strategies fail and health outcomes are poor, arguing that as the "most trusted" healthcare professionals, nurses should be the facilitators of achieving healthcare for everyone.

Dr. Stewart



Dr. Stewart's recent research into incidence of heart failure indicates that heart failure remains "a common and deadly disease, but survival rates are actually improving." Maintaining a stable population of heart failure patients may strain the healthcare system in the future, Dr. Stewart noted, but currently disparities in care typify the disease.

Indeed, according to recent research on case fatalities in Scotland, Dr. Stewart found that the more affluent were less likely to have an acute fatal event. "This presents a challenge to all countries," Dr. Stewart said. "These are socio-economic differences and we must do something about that."

Dr. Stewart posed a vexing question: Are symptoms overlooked when exhibited by a more youthful person? "Do younger men ignore symptoms?" Dr. Stewart asked. "Do younger women come into hospital and their symptoms are missed? Sex-based differences and socio-economic-based gradients are evident."

Investigating effective models of care, Dr. Stewart looked at heart failure teams dealing with high-risk patients with clinic care, community-based care, telephone support and interactive monitoring, providing different modes of management depending on the age and situation of the patient. In the end, nursing made the difference.

"Nurse intervention had an effect over and above drug therapy. There is something that we do that adds value. Caring for other people is the foundation of our profession," he concluded.

### Sabina de Geest

Sabina De Geest: Professor of Nursing and Director of the Institute of Nursing Science at the University of Basel in Switzerland

Sabine De Geest, PhD, RN, specializes in investigating patients' responses to one of the more stunning medical achievements of the century: human organ transplantation.



Dr. De Geest

Unimaginable only a few decades ago, kidney and liver transplants have become increasingly common as the incidence of chronic kidney and liver disease has continued to rise globally. The intersection of the human psyche and behavior with medical advancements such as transplants provides a vast new area for research.

"Our program of research is one that looks into the behavioral dimension of transplantation, specifically . . . reviewing patient adherence," said Dr. De Geest. "We are focusing on looking at the magnitude of noncompliance with immunosuppressant drugs."

One surprising finding of the Dr. De Geest's research was that compliance extends the average life expectancy by four years, but it also increases healthcare costs. "Non-adherence is less expensive than adherence due to differences in life expectancy," she said.

Dr. De Geest pointed out that patient non-compliance with a drug regimen is substantial: one in five patients is non-compliant. While some of the drugs produce uncomfortable side effects, she said there is no one reason for non-compliance. Thus, to increase compliance, healthcare practitioners need to tailor individualized approaches to immunosuppressant drugs for each patient.

Dr. De Geest concluded that "a major opportunity to improve outcomes is to invest in behavioral factors for transplantation" and make sure that people who work with transplants are trained in behavior modification in order to best mediate interventions.

# FACULTY: Stimulating the Intellectual Environment



Drs. Sullivan-Marx, Keane, and McCauley  
(left to right)

## School of Nursing Chairs

**Anne Keane**, Associate Dean for Academic Programs, has been named the Class of 1965, 25th Reunion Term Professor in Nursing. The Class of 1965 Chair is one of five created in 1990 by the Class. This unprecedented 25th Reunion class gift funded a chair for each of the four undergraduate schools and one in honor of the College for Women. Dr. Keane will be the first to hold the Class of 1965 Chair in the School of Nursing due to her initiative in developing and testing innovative educational models, given the shortage of faculty in nursing, and building on her earlier work on educational evaluation of

the different components of nursing programs. In addition, Dr. Keane is extending her research on stress and healing following home fires, testing intervention models of caring for children and adolescents following fires, and using these models for different levels of education.

**Eileen Sullivan-Marx**, Associate Dean for Practice and Community Affairs, has been named to the Shearer Endowed Term Chair for Healthy Community Practices. This chair, funded by a generous gift from Miriam Stirl (HUP '20, Ed '23) in memory of her mother Helen M.

Shearer, is intended for a nurse faculty member who will provide leadership and faculty support for the school's community-based initiatives.

Dr. Sullivan-Marx meets that intent with distinction. She is responsible for expanding the School's Healthy in Philadelphia (HIP) Initiative. She is conducting an ongoing evaluation of reimbursement mechanisms and policy related to quality of care and cost of services for vulnerable, older populations. Dr. Sullivan-Marx is also participating in developing Penn Home Care and Hospice Services.

**Linda McCauley**, Associate Dean for Research, has been named the Nightingale Professor in Nursing. The Nightingale Chair is funded by a generous gift from Margaret R. Mainwaring and was established to honor nurses who served their country during times of war and is dedicated to their memory.

Dr. McCauley's work with military personnel makes her particularly suitable for appointment as the Nightingale Professor. A distinguished researcher, scholar, teacher and mentor with a top national and international reputation, Dr. McCauley conducts innovative and influential research, publishes in prestigious journals, has received many awards, and is frequently selected to consult with governments and universities. Her research on the outcomes of exposure to antineoplastic drugs on nurses contributed to the 1988 development of work-practice guidelines for safe handling of drugs that became occupational health

administration policy. As a result of her research on chemical exposure experienced by military personnel, she was invited to give congressional testimony and to provide expert advice on the threat of bioterrorism. Her most current work on injuries among children of migrant farm workers is likely to provide an impetus to reform U. S. labor law.

**Stella L. Volpe**, PhD, RD, LD/N, FACSM, Associate Professor of Nursing, has been named to the Miriam Stirl Endowed Term Chair in Nutrition.

This chair is funded by a bequest from Miriam Stirl (HUP '20, Ed '23). Ms. Stirl developed an interest in nutrition during her nursing career and made this gift posthumously in 1989 for the study and teaching of nutrition. Dr. Volpe will be the second holder of the Stirl Chair. Dr. Linda Brown brought distinction to the Stirl Chair during the period 1997-2002.

Dr. Volpe's research in physical activity and nutrition intervention is well recognized and fits well with the donor's intent. Her research focuses on cross-cutting themes – the relationship of mineral metabolism and body composition, nutrition and physical activity education in low-income schools, and obesity prevention through environmental change.

Dr. Volpe is an emerging leader in the growing fields of nutrition and fitness/sports medicine, which have tremendous potential for discovery and where there is a great need for consumer education. Dr. Volpe has undertaken media efforts to enhance public knowledge about nutrition and increase awareness of the need for healthy eating habits.

## Dr. Loretta Jemmott Named New Assistant Provost

With primary responsibility for University-wide faculty gender and minority equity issues, Loretta Jemmott, PhD, FAAN, RN has been named the new Assistant Provost for Gender/Minority Equality Issues.

"For me as an African American woman, scholar, nurse, educator, parent, community leaders, and human being, the importance of equity and fairness for all people has been and continues to be one of my core life values. As an advocate and ally for gender and minority equity, I hope to continue the work that is presently being carried out here at Penn in terms of recruitment, retention, education, and celebration of women and people of color," said Dr. Jemmott.

Dr. Jemmott, also van Ameringen Professor in Psychiatric Mental Health Nursing, and Director of the Center for Urban Health Research, is seen here with Elias Zerhouni, MD, Director of the National Institutes of Health, discussing "Challenges, Facing the Nation's Research Enterprise" at a national forum conducted by Research! America. Dr. Zerhouni is the architect of the "roadmap initiative" to accelerate progress across the NIH. Dr. Jemmott is one of the leading AIDS researchers developing curricula to increase safer sex behaviors among at-risk youth nationally and internationally.



Dr. Loretta Jemmott (left) with Elias Zerhouni, MD, Director of the National Institutes of Health at a Research! America forum.

# ACHIEVEMENTS



## Mary Naylor – First Nurse Named a McCann Scholar

Members of the faculty of the School of Nursing have recently received many of the highest awards in healthcare: the Episteme, the Codman, and a MacArthur fellowship. And for the first time, a faculty member was named a McCann Scholar by the Joy McCann Foundation.

As the MacArthur fellowship, the McCann award seeks to reward originality and verve with a no-strings-attached financial award. The McCann award is \$150,000. The McCann Scholar criteria are demonstrated success as an educator and mentor in teaching, research or patient care, leadership in the Scholar's institution or profession, and recognition as a role model.

The award citation said: "Dr. Naylor has garnered a national and international reputation as a geriatric scholar, combining her humanistic concern and respect for vulnerable elders with rigorous science to create innovative models to enhance the care and health outcomes of this population. She has also earned the respect of her students and peers as an outstanding teacher and mentor. Especially noteworthy is the leadership Dr. Naylor has demonstrated in promoting educational and research collaborations among scholars and students from various disciplines. Colleagues at the University of Pennsylvania say, 'she is a mentor, collaborator, clear thinker, and a real leader in her University and her field.' "

## Awards

### Ivo Abraham

Gerontologic Nursing Book of the Year Award (co-editor), *American Journal of Nursing*

### Linda Aiken

Media Award, American Academy of Nursing

Nurse Researcher Award,  
American Organization of Nurse Executives

### Debbie Becker

Provost's Award for Distinguished Teaching,  
University of Pennsylvania

### Compher, Charlene

Chair, Dietitians in Nutrition Support,  
Dietetic Practice Group of the American  
Dietetic Association

### Valerie Cotter

Elected Fellow,  
American Academy of Nurse Practitioners

### Janet Deatrack

Best of the Journal of Nursing Scholarship Award,  
Sigma Theta Tau International

Research Paper of the Year (co-author),  
Maternal Child Nursing

### Claire Fagin

Honorary Doctorate of Jurisprudence,  
University of Toronto, June 2004,  
Commencement Speaker

### Julie Fairman

2003 Barbara Lowery DSO Faculty Award,  
Doctoral Student Organization

### Susan Gennaro

AACN Helene Fuld Leadership Fellow

### Ellen Giarelli

Quality of Life Award, Publishing Division of  
the Oncology Nursing Society

### Rosemary Gillespie

2004 Academic Support Staff Teaching Award,  
School of Nursing

**Loretta Sweet Jemmott**

Robert E. Davies Award, Association of Women Faculty and Administrators, University of Pennsylvania

Named University Assistant Provost for Gender and Minority Equity Issues, University of Pennsylvania

**Clifford Jordan**

Distinguished Lifetime Service Award, School of Nursing Alumni Society

**Sarah Kagan**

2004 Barbara Lowery DSO Faculty Award, Doctoral Student Organization

**Mary Ann Lafferty-della Valle**

2004 Undergraduate Advisor's Award, School of Nursing

**Terri Lipman**

Best Research Abstract Award, Pediatric Endocrinology Nursing Society

**Erme Maula**

2004 Teaching Assistant's Award, School of Nursing

**Kathleen McCauley**

President, American Association of Critical Care Nurses

**Barbara Medoff-Cooper**

2004 Claire M. Fagin Distinguished Researcher Award, School of Nursing

**Afaf I. Meleis**

2004 Book of the Year Award, *American Journal of Nursing*

2004 Commonwealth of Pennsylvania Commission for Women Celebration of Women's History Month Award

**Mary Naylor**

McCann Scholar Award, Joy McCann Foundation

**Ann L. O'Sullivan**

President, National Organization of Nurse Practitioner Faculties

**Therese Richmond**

2004 Teaching Award, School of Nursing

**Diane Spatz**

Phi Sigma Sigma Order of the Sapphire Award

**Carrie Stricker**

International Research Utilization Award, Sigma Theta Tau International

**Marilyn Stringer**

2004 Chiron Mentor, Sigma Theta Tau International Honor Society

**Neville Strumpf**

University of Pennsylvania Senate Chair-Elect for 2004-2005

First Grace Tien Visiting Professor at Hong Kong University, Feb. 2004

**Jacqueline Sullivan**

International Research Utilization Award, Sigma Theta Tau International

**Eileen Sullivan-Marx**

2004 Primary Care Fellow, U.S. Department of Health and Human Services

Primary Healthcare Policy Fellow, Department of Health & Human Services

**Lorraine Tulman**

Member, U.S. Food and Drug Administration Advisory Committee on Reproductive Health

**Judith Verger**

Chair-Elect, Association of Critical Care Nurses Certification Corporation

**Karen Buhler-Wilkerson**

Sigma Theta Tau International Pinnacle Award for 2004 for Nursing Media (ART) for region 12 for RN: The Past, Present, and Future of the Nurse's Uniform.

**Ruth York**

Best of the Journal of Nursing Scholarship Award, Sigma Theta Tau International

## Presidents

Penn Nursing has long been known for its tradition of producing nurse leaders. This year, several members of the faculty and teaching staff are or will become presidents of major nursing organizations, including:

Wendy Grube, lecturer, is President of the Philadelphia Coloposcopy Society

Dr. Kathleen McCauley, PhD, FAAN, RN, CS, Associate Professor of Cardiovascular Nursing, and Class of 1942 Endowed Term Professor, is President of the American Association of Critical Care Nurses.

Dr. Ann O'Sullivan, PhD, FAAN, CRNP, Professor of Primary Care Nursing, is President of the National Organization of Nurse Practitioner Faculties.

Judy Verger, MSN, CRNP, CCRN, RN, is Chair-elect of the Association of Critical Care Nurses Certification Corporation.

Vicky Weill, MSN, CRNP, clinical coordinator/lecturer, just turned over the gavel as President of the Pennsylvania-Delaware Valley Chapter of the National Association of Pediatric Nurse Practitioners.

## Selected Publications

### Linda Aiken

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Aiken, L.H., Clarke, S.P., Cheung, R.B., Sloane, D.M., & Silber, J.H. (2003). Education levels of hospital nurses and patient mortality. *Journal of the American Medical Association*, 290, 1617-1623.

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Rogers, A.E., Hwang, W., Scott, L.D., Aiken, L.H., & Dinges, D.F. (2004). The working hours of hospital staff nurses and patient safety. *Health Affairs*, 23(4), 202-212.

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Aiken, L.H. (2004). Academic practice: A rich laboratory for nursing research. In L.K. Evans, & N.M. Lang (Eds.), *Academic nursing practice: Helping to shape the future of health care*. New York: Springer.

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Houser, B., & Player, K. (2004). Biography of Linda H. Aiken. (Eds.), *Pivotal moments in nursing: Leaders who changed the path of a profession*. Indianapolis, IN: Sigma Theta Tau International.

### Karen Badellino

Badellino, K.O., & Rader, D.J. (2004). The role of endothelial lipase in high-density lipoprotein metabolism. *Current Opinion in Cardiology*, 19(4), 392-395.

Sinha, D., Badellino, K.O., Marchinkiewicz, M., & Walsh, P.N. (2004). Allosteric modification of factor XIa functional activity upon binding to polyanions. *Biochemistry*, 43(23), 7593-7600.

### Jane Barnsteiner

Barnsteiner, J.H., Kurlowicz, L., Lipman, T.H., Spatz, D., & Stringer, M. (2004). Establishing an evidence base in academic practice: The role of the clinician-educator faculty. In L.K. Evans, & N. Lang (Eds.), *Academic Nursing Practice: Helping to Shape the Future of Healthcare*. (205-218). New York: Springer.

### Christine Bradway

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### Linda Brown

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### Karen Buhler-Wilkerson

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### Sean Clarke

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### Charlene Compher

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This and the three pictures that follow were produced by frail elders participating in the art therapy program at LIFE (Living Independently for Elders), a two-site clinical practice serving frail elders in the community and run by the School of Nursing. Two such pictures are hanging in the offices of Pennsylvania Sen. Arlen Specter and Rep. Jim Greenwood.



"Hands ", 2004 group artwork, Tempera paint on paper 32" X 60"

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### **Margaret Cotroneo**

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### **Norma Cuellar**

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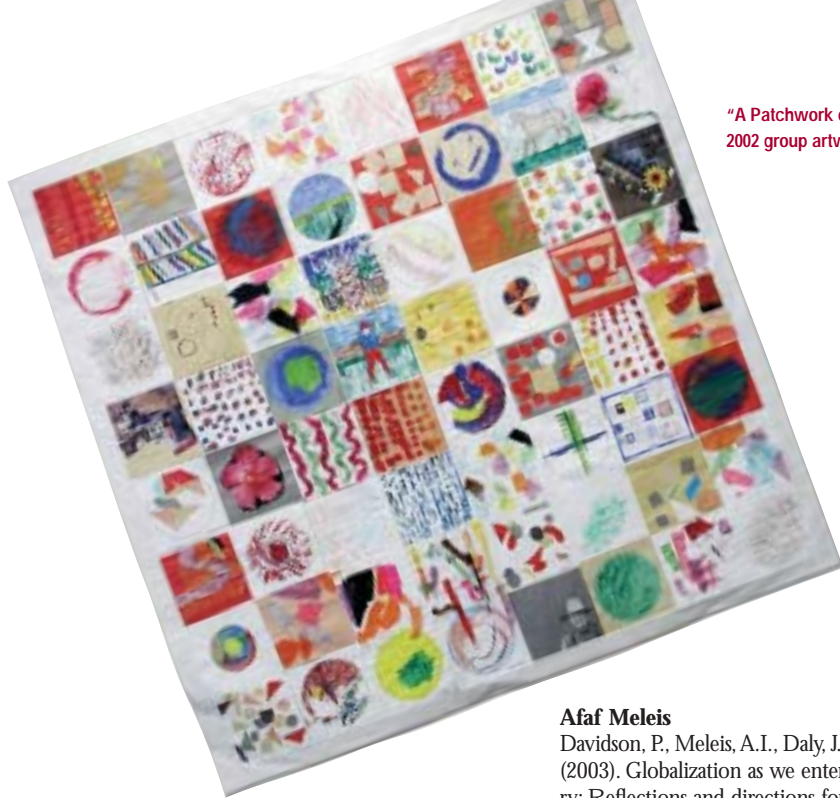


Linda Aiken



Karen Badellino





**"A Patchwork of LIFE"**  
2002 group artwork, Mixed Media

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Jane Barnsteiner



Kathryn H. Bowles



Linda Brown



Sean P. Clarke



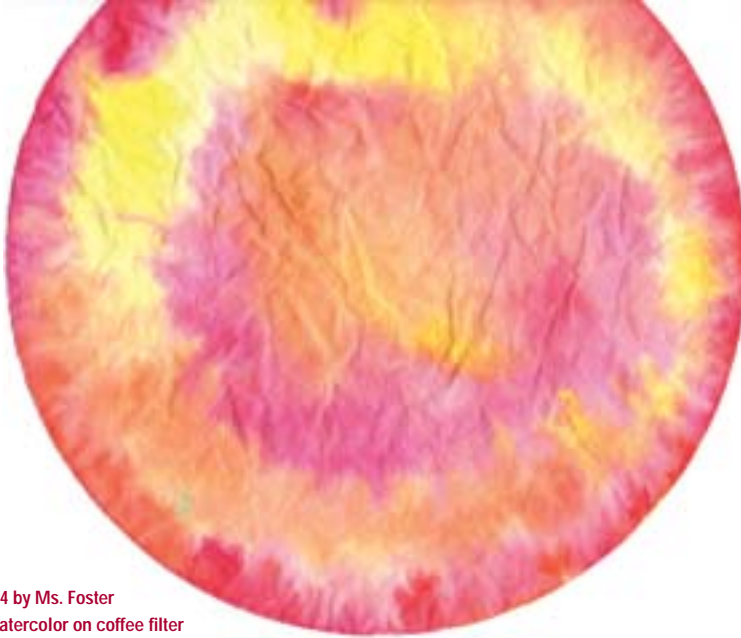
Charlene W. Compher



Margaret Cotroneo



Norma Cuellar



**"The Sun" 2004 by Ms. Foster**  
Wet on wet watercolor on coffee filter

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Janet Deatrick



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Susan Gennaro



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Mary Katherine Hutchinson



Loretta Sweet Jemott

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### **Nancy Tkacs**

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### **Lorraine Tulman**

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### **Connie Ulrich**

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### **Stella Volpe**

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### **Terri Weaver**

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**"Dots" 2004 by Ms. E. Keller  
Tempera paint marker on paper**



Sarah Kagan



Anne Keane



Lenore Kurlowicz



Eileen Lake



Norma Lang



Terri Lipman



Zoriana Malseed

## Grants 2003-2004

### Linda Aiken

*Advanced Training in Nursing Outcomes Research*  
National Institutes of Health (2-T32-NR-007104-06)  
6/1/1999-3/31/2009

Principal Investigator: **Linda Aiken**

Co-Investigators: **Sean Clarke, Loretta Sweet Jemmott, Julie Sochalski**

*Beyond Quick Fixes: Evidence Based Policy Analysis*  
The Robert Wood Johnson Foundation  
2/1/2004-1/31/2005

Principal Investigator: **Linda Aiken**

*Center for Nursing Outcomes Research*  
National Institutes of Health (5-P30-NR-005043-03)

2/15/2000-1/31/2005

Principal Investigator: **Linda Aiken**

Co-Investigators: **Susan Gennaro, Loretta Sweet Jemmott, Barbara Medoff-Cooper, Julie Sochalski**

*Doctoral Degree Scholarship in Cancer Nursing*  
American Cancer Society  
8/1/2003-7/31/2005

Mentor: **Linda Aiken**

Fellow: **Christopher Friese**

*Evaluating a Hospital Quality Improvement Model for Developing Countries*

Population Studies Center Mellon Program

7/1/2002-12/31/2003

Principal Investigator: **Linda Aiken**

*Evidence-Based Nurse Executive Program on Solutions to Nursing Shortage*

The Robert Wood Johnson Foundation

6/15/2002-12/14/2003

Principal Investigator: **Linda Aiken**

*Health Disparities Supplement-Center for Nursing Outcomes Research*

National Institutes of Health (5-P30-NR-005043-02S1)

2/15/2000-1/31/2005

Principal Investigator: **Linda Aiken**

Co-Investigators: **Susan Gennaro, Loretta Sweet Jemmott, Barbara Medoff-Cooper, Julie Sochalski**

*Hospital Restructuring: Implications for Patient Outcomes and Workforce Policy*

The Robert Wood Johnson Foundation

9/1/1999-8/31/2004

Principal Investigator: **Linda Aiken**

*How Nursing Affects the Volume-Outcomes Relationship*

National Institutes of Health (5-R01-NR-04513-06)

8/15/2001-7/31/2005

Principal Investigator: **Linda Aiken**

Co-Investigators: **Sean Clarke, Douglas Sloane, Julie Sochalski**

*International Comparisons of the Impact of Nursing on Hospital Quality of Care and Patient Outcomes*

The Commonwealth Fund

6/1/2003-5/31/2004

Principal Investigator: **Linda Aiken**

*International Nurse Shortages and Nurse Migration*  
The Commonwealth Fund

4/1/2003-3/31/2004

Principal Investigator: **Linda Aiken**

*Study of Outcomes of Neutropenia Patients*  
*Oncology Nursing Society*

10/1/2003-9/30/2005

Principal Investigator: **Linda Aiken**

Co-Investigator: **Christopher Friese**

*Nursing Intervention for HIV Regimen Adherence among the Seriously Mentally Ill*

National Institutes of Health (1-R01-NR-008851)

9/1/2003-5/31/2008

Principal Investigator: Michael Blank

Co-Investigator: **Linda Aiken**

### Kay Arendasky

*Occupational Health Nurse Internship at OSHA*

U.S. Department of Labor (909400)

5/17/2004-7/9/2004

Mentor: **Kay Arendasky**

Fellow: **Lynda Nolan**

### Fran Barg

*Preserving Physical and Mental Health and Social Functioning among Elderly Hospice Caregivers*

Wissahickon Hospice

1/1/2000-12/31/2003

Principal Investigator: **Fran Barg**

Co-Investigator: **Deborah McGuire**

### Jane Barnsteiner

*State of the Science on Safe Medication*

Agency for Healthcare Research and Quality (1-R13-HS-014836-01)

5/10/2004-5/9/2005

Principal Investigator: **Jane Barnsteiner**

Co-Investigator: **Kathleen Burke**

### Kathryn Bowles

*Factors to Support Effective Discharge Decision-Making*

National Institutes of Health (5-RO1-NR-07674-01)

9/15/2001-8/31/2005

Principal Investigator: **Kathryn Bowles**

Co-Investigator: **Mary Naylor**

*Nurse Researcher for VNA*

Visiting Nurses Association of Greater Philadelphia

7/1/2001-6/30/2004

Principal Investigator: **Kathryn Bowles**

*Promoting Self-Management of Congestive Heart through Health E-Technologies*

Pennsylvania State University

9/1/2003-8/31/2004

Principal Investigator: **Kathryn Dansky**

Co-Investigator: **Kathryn Bowles**

### Karen Buhler-Wilkerson

*Albert Einstein Medical Center Nursing Collection Processing Project*

Pennsylvania Historical and Museum

Commission

10/12/2002-10/31/2003

Principal Investigator: **Karen Buhler-Wilkerson**

*Living Independently for Elders (LIFE): Improving Quality of Life of Frail Elders in West Philadelphia*

Pew Charitable Trusts

1/1/2002-12/31/2003

Principal Investigator: **Karen Buhler-Wilkerson**

Co-Investigator: **Mary Naylor**

*Master's Education in Occupational Environmental Health*

Center for Disease Control and Prevention

(T01/CCT310445-09)

7/1/2002-6/30/2005

Principal Investigator: **Karen Buhler-Wilkerson**

Co-Investigator: **Kay Arendasky**

### Sean Clarke

*Organizational Climate and Hospital Patient/Nurse Safety*

National Institutes of Health (1-K01-NR-07895-01A1)

7/1/2002-6/30/2005

Principal Investigator: **Sean Clarke**

### Charlene Compher

*Nutritional and Immune Parameters in Home Parenteral Nutrition Patients*

University of Kansas Medical Center

3/1/2003-3/31/2004

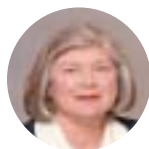
Principal Investigator: **Charlene Compher**



Kathleen McCauley



Linda McCauley



Maureen McCausland



William McCool



Deborah McGuire



Barbara Medoff-Cooper



Ataf Meleis

*Oleic Acid Effects on Transit and Absorption in SBS*  
National Institutes of Health (5-R03-DK-062841-02)  
7/1/2003-6/30/2005  
Principal Investigator: **Charlene Compher**

*Prevention of TPN-Associated Hepatic Steatosis: A Placebo Controlled Trial*  
Northwestern University  
5/1/2002-8/31/2004  
Principal Investigator: **Charlene Compher**

**Margaret Cotroneo**  
*Myers Health Annex Men's Health Outreach Program*  
Jesse Ball Dupont Foundation  
9/1/2001-9/15/2004  
Principal Investigator: **Margaret Cotroneo**

**Norma Cuellar**  
*A Comparison of Type 2 Diabetes with/without RLS*  
American Association of Diabetes Educators  
5/1/2004-5/1/2005  
Principal Investigator: **Norma Cuellar**

**Patricia D'Antonio**  
*Nursing History Review*  
American Association for the History of Nursing  
1/1/1992-12/31/2006  
Principal Investigator: **Patricia D'Antonio**

*Nursing in the US: A History of People and Places*  
National Institutes of Health (1-G13-LM-008199-01)  
6/1/2004-5/31/2007  
Principal Investigator: **Patricia D'Antonio**

*Who Is a Nurse: The Mormon Experience*  
Sigma Theta Tau, Xi Chapter  
5/1/2003-4/30/2004  
Principal Investigator: **Patricia D'Antonio**

**Janet Deatrick**  
*Assessing Family Management of Childhood Chronic Illness*  
Yale University  
5/1/2003-2/28/2006  
Principal Investigator: Kathleen Knafel  
Co-Investigator: **Janet Deatrick**

*Family Experiences Withdrawing Life Sustaining Therapy*  
National Institutes of Health (5-F31-NR-07558-02)  
9/27/2000-7/25/2003  
Mentor: **Janet Deatrick**  
Fellow: **Debra Wiegand**

**Lois Evans**  
*Attributes of Organizational Culture in Nursing Homes*  
Beverly Enterprises, Inc.  
8/1/2003-4/30/2004  
Principal Investigator: **Lois Evans**  
Co-Investigator: **Cynthia Scalzi**

*Delaware Valley Geriatric Education Center*  
U.S. Department of Health and Human Services (5-D31-HP-070144)  
7/1/2001-6/30/2006  
Principal Investigator: Mary Forcica  
Co-Investigator: **Lois Evans**

**Julie Fairman**  
*Gendered Domain: Medicine and the Nurse Practitioner Movement, 1960 to the Present*  
National Endowment for the Humanities (FA3722302)  
1/1/2003-9/30/2003  
Principal Investigator: **Julie Fairman**

*Nurse Practitioner Legislation and Access to Healthcare*  
National Institutes of Health (1-F31-NR-008302)  
8/1/2003-7/31/2006  
Mentor: **Julie Fairman**  
Fellow: **Deborah Ann Sampson**

**Susan Gennaro**  
*Ethnic Identity and Hispanic Adolescent Sexual Behavior*  
Franklin Health Trust  
9/10/2001-8/31/2003  
Mentor: **Susan Gennaro**  
Fellow: **Aida Egues**

*Mechanisms for Preterm Birth in African American Women*  
National Institutes of Health (1-R03-NR-008548)  
8/15/2003-7/31/2005  
Principal Investigator: **Susan Gennaro**

*Renovation of Nursing Doctoral Student Computer Lounge Workspace*  
Franklin Health Trust  
5/1/2003-2/29/2004  
Principal Investigator: **Susan Gennaro**

*Research on Vulnerable Women, Children and Families*  
National Institutes of Health (5-T32-NR-07100-05)  
5/1/1998-2/29/2008  
Principal Investigator: **Susan Gennaro**  
Co-Investigators: **Linda Brown, Janet Deatrick**

*Violence in the Dating Experience of College Women*  
American Nurses Foundation  
11/1/2002-11/1/2003  
Mentor: **Susan Gennaro**  
Fellow: **Angela C. Frederick**

**Ellen Giarelli**  
*Participating in Life-Long Surveillance: Families with F.A.P.*  
Oncology Nursing Society  
5/15/2003-5/15/2005  
Principal Investigator: **Ellen Giarelli**

**Arlene Houldin**  
*Experiences of Colorectal Cancer Patients and Their Caregivers*  
Oncology Nursing Society  
9/15/2003-9/15/2005  
Principal Investigator: **Arlene Houldin**

*Factors Affecting the Negotiation of Cancer Pain Treatment among African Americans*  
Oncology Nursing Society  
3/15/2004-3/14/2006  
Mentor: **Arlene Houldin**  
Fellow: **Salimah Meghani**

*Graduate Education in Oncology Nursing for Minorities*  
National Institutes of Health (5-R25-CA-56689-10)  
5/1/1998-6/30/2004  
Principal Investigator: **Arlene Houldin**

*Helping the Mother with Breast Cancer and Support Her Child*  
University of Washington  
6/1/2002-5/31/2005  
Principal Investigator: Frances Lewis  
Co-Investigator: **Arlene Houldin**

*Master's Degree Scholarships in Cancer Nursing*  
American Cancer Society  
8/1/2002-7/31/2003  
Mentor: **Arlene Houldin**  
Fellow: **Lynne Reilly**

*Supporting Mothers with Breast Cancer: A Pilot Study*  
University Research Foundation  
2/1/2003-1/31/2004  
Principal Investigator: **Arlene Houldin**

**Mary Katherine Hutchinson**  
*Dyadic Ecological Analysis of Adolescent Sexual Risk*  
National Institutes of Health (5-R03-MH-063659-02)  
7/1/2001-6/30/2004  
Principal Investigator: **Mary Katherine Hutchinson**  
Co-Investigator: **Loretta Sweet Jemmott**



Mary Naylor



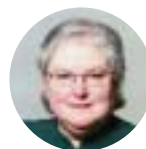
Ann L. O'Sullivan



Freida Outlaw



Jennifer Pinto-Martin



Therese Richmond



Barbara Riegel



Ann E. Rogers

**Loretta Sweet Jemmott**

*Cam's Adherence in Adult Minorities with Asthma*  
National Institutes of Health (1-F31-AT-001149-01)  
7/1/2002-12/23/2003  
Mentor: **Loretta Sweet Jemmott**  
Fellow: **Maureen George**

*Church-Based Parent-Child HIV Prevention Project*  
National Institutes of Health (5-R01-MH-063070-02)  
7/1/2001-6/30/2006  
Principal Investigator: **Loretta Sweet Jemmott**  
Co-Investigators: **Mary Katherine Hutchinson, Freida Outlaw**

*Hampton Penn Center to Reduce Health Disparities*  
National Institutes of Health (1-P-20-NR-008361-01)  
9/30/2002-6/30/2007  
Principal Investigator: **Loretta Sweet Jemmott**  
Co-Investigators: **Janet Deatrck, Susan Gennaro, Mary Katherine Hutchinson, Barbara Medoff-Cooper, Lorraine Tulman**

*Empowering Women Drug Users to Reduce HIV Risk*  
National Institutes of Health (5-R01-DA-013901)  
6/20/2001-11/30/2004  
Principal Investigator: Erica Gollub  
Co-Investigator: **Loretta Sweet Jemmott**

*HIV Sexual Risk Reduction for Black Drug-Using Women*  
National Institutes of Health (1-R01-MH-64407-01)  
9/25/2001-8/31/2006  
Principal Investigator: John Jemmott  
Co-Investigators: **Mary Katherine Hutchinson, Loretta Sweet Jemmott**

*HIV/STD Prevention Interventions for Black Adolescents*  
National Institutes of Health (5-R01-MH-062049)  
9/10/2000-8/31/2005  
Principal Investigator: John Jemmott  
Co-Investigator: **Loretta Sweet Jemmott**

*HIV/STD Risk Reduction for African American Couples*  
National Institutes of Health (5-U10-MH-064394)  
4/1/2002-1/31/2007  
Principal Investigator: John Jemmott  
Co-Investigator: **Loretta Sweet Jemmott**

*South African Adolescent Health Promotion Project*  
National Institutes of Health (5-R01-MH-065867)  
9/20/2002-7/31/2007  
Principal Investigator: John Jemmott  
Co-Investigator: **Loretta Sweet Jemmott**

*The Generalizability of HIV Risk Reduction Strategies*  
National Institutes of Health (5-R01-HD-039109)  
9/30/1999-8/31/2005  
Principal Investigator: John Jemmott  
Co-Investigator: **Loretta Sweet Jemmott**

*Helping Families Reduce HIV in African American Youth*  
National Institutes of Health (1-R01-MH-63459-02)  
9/30/2000-9/2/2003  
Principal Investigator: Larry Icard  
Co-Investigator: **Loretta Sweet Jemmott**

*HIV Prevention Trial Unit*  
National Institutes of Health (5-U01-AI-048014)  
7/1/2000-6/30/2005  
Principal Investigator: David Metzger  
Co-Investigator: **Loretta Sweet Jemmott**

*AIDS Clinical Trial Unit*  
National Institutes of Health (5-U01-AI-032783)  
1/1/2000-12/31/2004  
Principal Investigator: Pablo Tebas  
Co-Investigator: **Loretta Sweet Jemmott**

**Sarah Kagan**  
*Advanced Cancer and Decision-Making in African American Families*  
Oncology Nursing Society  
3/15/2002-3/15/2005  
Mentor: **Sarah Kagan**  
Fellow: **Joanne Reifsnnyder**

*Doctoral Degree Scholarship in Cancer Nursing*  
American Cancer Society  
8/1/2002-7/31/2004  
Mentor: **Sarah Kagan**  
Fellow: **Margaret Crighton**

*Geriatric Nursing Knowledge and Experience in Long Term Care Facilities*  
Health Resources & Services Administration (1-D53-HP-00520)  
7/1/2003-12/31/2004  
Principal Investigator: **Sarah Kagan**

*Neutropenia in Older Adults with Hematologic Malignancy*  
The John A Hartford Foundation through the American Academy of Nursing  
7/1/2003-6/30/2005  
Mentor: **Sarah Kagan**  
Fellow: **Margaret Crighton**

*Smoking Program for Head and Neck Cancer Patients*  
Fox Chase Cancer Center  
6/1/2002-6/30/2004  
Principal Investigator: Peter Gariti  
Co-Investigator: **Sarah Kagan**

**Anne Keane**  
*Advanced Education Nursing Traineeships*  
Health Resources and Services Administration (2-A10-HP-00072-)  
7/1/2003-6/30/2004  
Principal Investigator: **Anne Keane**

*Nursing Education Grant Program*  
Pennsylvania Higher Education Foundation  
9/1/2003-6/30/2004  
Principal Investigator: **Anne Keane**

**Eileen Lake**  
*Nursing Expertise Measures for Outcomes Research*  
National Institutes of Health (5-K01-NR-000166)  
7/1/2000-6/30/2004  
Principal Investigator: **Eileen Lake**

**Norma Lang**  
*Measuring and Improving Health Care Quality*  
Agency for Healthcare Research and Quality (1-R13-HS-12058)  
9/30/2001-9/29/2003  
Principal Investigator: **Norma Lang**  
Co-Investigator: **Beth Ann Swan**

*Collaborative Programs in Nursing and Peace and Conflict Studies with the University of Ibadan*  
The John D. and Catherine T. Macarthur Foundation  
1/1/2004-6/30/2005  
Principal Investigator: Peter Conn  
Co-Investigator: **Norma Lang**

**Terri Lipman**  
*Management of Pediatric Type 2 Diabetes*  
The Children's Hospital of Philadelphia  
9/20/2001-2/28/2009  
Principal Investigator: Charles Stanley  
Co-Investigator: **Terri Lipman**



Cynthia Scalzi



Karen Schumacher



Edith Simpson



Julie Sochalski



Diane Spatz



Marilyn Stringer



Neville Strumpf

**Linda McCauley**

*Biomarkers of Pesticide Toxicity Among Teen Farmworkers*  
Centers for Disease Control and Prevention (R01-OH-008057)  
1/1/2004-9/29/2006  
Principal Investigator: **Linda McCauley**

*Genes and Environment: Education to Involve Communities*  
National Institutes of Health (R25-ES-12089)  
4/1/2004-8/31/2007  
Principal Investigator: **Linda McCauley**

*Neurotoxic Superfund Chemicals and Biomarkers*  
Oregon Health Sciences University  
4/1/2004-3/31/2005  
Principal Investigator: P. Spencer  
Co-Investigator: **Linda McCauley**

*Reducing Pesticide Exposure in Minority Families*  
National Institutes of Health (R01-ES-08707)  
4/1/2004-7/31/2005  
Principal Investigator: **Linda McCauley**

**Anne McGinley**

*Evaluation of the Accuracy of Height Assessment of Pre-Menopausal and Menopausal Women*  
Hartford Center for Geriatric Nursing Excellence  
1/1/2002-12/31/2004  
Principal Investigator: **Anne McGinley**  
Co-Investigator: **Terri Lipman**

**Deborah McGuire**

*Biobehavioral Interventions for Oral Pain and Mucositis*  
National Institutes of Health (R01-NR-03929-06)  
9/30/1999-8/31/2003  
Principal Investigator: **Deborah McGuire**  
Co-Investigator: **Susan Nolte**

*Doctoral Degree Scholarship in Cancer Nursing*  
American Cancer Society  
9/1/2001-8/31/2003  
Mentor: **Deborah McGuire**  
Fellow: **Sadie Neureuther**

*Doctoral Fellowship*  
American Cancer Society  
9/1/2000-8/31/2003  
Mentor: **Deborah McGuire**  
Fellow: **Susan Nolte**

**Barbara Medoff-Cooper**

*Energy Expenditure, Energy Intake, Growth and Body Composition in Infants with CHD*  
American Nurses Foundation  
11/1/2003-11/1/2004  
Mentor: **Barbara Medoff-Cooper**  
Fellow: **Judy Verger**

*Feeding Behaviors and Energy Balance in Infants with CHD*  
National Institutes of Health (2-R01-NR-002093-01A1)  
9/6/2002-5/31/2007  
Principal Investigator: **Barbara Medoff-Cooper**

*Infant Functional Status and Discharge*  
The Children's Hospital of Philadelphia  
9/1/2001-8/31/2004  
Principal Investigator: Jeffrey Silber  
Co-Investigator: **Barbara Medoff-Cooper**

*An Export Center of Excellence for Inner City Health*  
National Institutes of Health (5-P60-MD-000209)  
9/30/2002-9/29/2007  
Principal Investigator: Shiriki Kumanyika  
Co-Investigator: **Barbara Medoff-Cooper**

**Mary Naylor**

*Assessing Health- Related Quality of Life Among Frail Elders*  
Ralston House  
7/1/2002-6/30/2004  
Principal Investigator: **Mary Naylor**  
Co-Investigator: **Kathryn Bowles**

*Building Interdisciplinary Geriatric Health Care Research Center*  
Rand Corporation  
1/1/2003-12/31/2004  
Principal Investigator: **Mary Naylor**

*Coordinating Care Between Hospital and Home: Translating Research Into Practice, Phase I*  
The Commonwealth Fund  
2/1/2004-4/30/2005  
Principal Investigator: **Mary Naylor**

*Living Independently for Frail Elders*  
Franklin Health Trust  
1/1/2003-12/31/2003  
Principal Investigator: **Mary Naylor**

*Clinical and Economic Effectiveness of a Technology-Driven Heart Failure Monitoring System*  
Health Care Financing Administration (18-C-91172/3-03)  
9/20/2000-9/19/2004  
Principal Investigator: Mariel Jessup  
Co-Investigator: **Mary Naylor**

*Physician-Nurse Co-Management of Elders with Heart Failure*  
National Institutes of Health (5-R01-NR-007616)  
9/30/2000-8/31/2004  
Principal Investigator: J. Schwartz  
Co-Investigators: **Mary Naylor, Kathleen McCauley**

**Ann O'Sullivan**

*Moms on the Move*  
William Penn Foundation  
1/31/2001-1/30/2004  
Principal Investigator: Donald Schwarz  
Co-Investigator: **Ann O'Sullivan**

**Jennifer Pinto-Martin**

*Center of Excellence for Autism Epidemiology*  
Centers for Disease Control & Prevention (U10/CCU320394-01)  
9/30/2001-9/29/2006  
Principal Investigator: **Jennifer Pinto-Martin**  
Co-Investigator: **Ellen Giarelli**

*Epidemiology of Early CNS Injury & Psychopathology at 13*  
Research Foundation for Mental Hygiene, Inc.  
2/1/1999-1/31/2004  
Principal Investigator: Agnes Whitaker  
Co-Investigator: **Jennifer Pinto-Martin**

**Therese Richmond**

*Disparities in Clinical Care Outcomes for Older Adults: Influence of Age, Race and Gender*  
American Academy of Nursing  
7/1/2003-6/30/2005  
Mentor: **Therese Richmond**  
Fellow: **Michele Balas**

*Major Depression Following Minor Injury*  
National Institutes of Health (R01-MH-63818-01A1)  
4/1/2002-3/31/2007  
Principal Investigator: **Therese Richmond**

*Project Safe Neighborhoods (PSN) Research Partner*  
U.S. Department of Justice, Bureau of Justice Assistance (2003-GP-CX-0110)  
4/7/2003-9/30/2006  
Principal Investigators: **Therese Richmond, Charles Schwab**

*Case-Control Study of Alcohol Outlets & Firearm Violence*  
National Institutes of Health (5-R01-AA-013119)  
8/1/2002-4/30/2006  
Principal Investigator: Charles Branas  
Co-Investigator: **Therese Richmond**



Eileen Sullivan-Marx



Nancy Tkacs



Lorraine Tulman



Connie Ulrich



Stella Volpe



Terri Weaver



Karen Buhler-Wilkerson

*Reducing Firearm Injury through Interdisciplinary and Community Partnership*  
The Joyce Foundation  
5/1/2001-10/31/2005  
Principal Investigators: **Therese Richmond,**  
Charles Schwab

**Barbara Riegel**

*Effectiveness of Telephonic Case Management in Hispanics With Heart Failure*  
American Heart Association  
1/1/2002-12/31/2004  
Principal Investigator: **Barbara Riegel**

*Enhanced Education to Improve Heart Failure Self-Care*  
University Research Foundation  
6/30/2003-6/30/2004  
Principal Investigator: **Barbara Riegel**

*Nurse-Delivered Focused Education and Counseling Intervention to Decrease Delay in Seeking Treatment*  
University of California, San Francisco  
9/1/2002-2/28/2005  
Principal Investigator: Kathleen Dracup  
Co-Investigator: **Barbara Riegel**

**Ann E. Rogers**

*Staff Nurse Fatigue and Patient Safety*  
Agency for Healthcare Research and Quality (1-RO1-HS-11963-03)  
9/30/2001-9/29/2004  
Principal Investigator: **Ann E. Rogers**  
Co-Investigator: **Linda Aiken**

**Karen Schumacher**

*Family Caregiving Skill Measurement and Evaluation*  
National Institutes of Health (5-R01-NR-05126-03)  
9/1/1999-8/31/2004  
Principal Investigator: **Karen Schumacher**  
Co-Investigator: **Sarah Kagan**

**Edith Simpson**

*Building on the Findings of the Partners Study-Identifying Interventions That Promote Child Restraints*  
The Children's Hospital of Philadelphia  
3/1/2004-5/31/2004  
Principal Investigator: **Edith Simpson**

**Julie Sochalski**

*Decision-Support Tools for Improved Nurse Workforce Management: Exploring Data on the International Migration of Nurses to the United States*  
School of Medicine  
6/1/2003-5/31/2004  
Co-Investigator: **Julie Sochalski**

*Improving the Outcomes of Care for Hospitalized Cancer Patients*  
Oncology Nursing Society  
2/1/2003-6/30/2004  
Principal Investigator: **Julie Sochalski**



Nursing students assisted Philadelphia Mayor John Street's Office of Health and Fitness by providing cholesterol and glucose screenings with baseline assessments of flexibility, endurance, strength, and cardio fitness in April 2004.

*International Mobility of Nurses and Globalization*  
World Health Organization  
8/1/2002-12/31/2003  
Principal Investigator: **Julie Sochalski**

*Nurse Assessments of Process and Outcomes for Hospitalized Cancer Patients*  
Oncology Nursing Society  
5/1/2004-4/30/2005  
Principal Investigator: **Julie Sochalski**

*Nurse Staffing and Patient Outcomes in the VA*  
U.S. Department of Veterans' Affairs (663-D36020)  
10/1/2002-9/30/2005  
Principal Investigator: Anne Sales  
Co-Investigator: **Julie Sochalski**

*Predicting Pediatric Risk of Death After Hospitalization*  
The Children's Hospital of Philadelphia  
8/1/2003-7/31/2006  
Principal Investigator: **Julie Sochalski**

**Diane Spatz**

*An Innovative Program for Breastfeeding Education and Training*  
The Foederer Fund  
7/1/2002-6/30/2004  
Principal Investigator: **Diane Spatz**

*Support for Low-Income Breastfeeding: Cost and Outcomes*  
Johns Hopkins University  
3/1/2003-2/28/2007  
Principal Investigator: Linda Pugh  
Co-Investigator: **Diane Spatz**

*The Program for North American Mobility in Higher Education*  
University of New Mexico  
2/15/2000-2/14/2005  
Principal Investigator: Karen Carlson  
Co-Investigator: **Diane Spatz**

**Marilyn Stringer**

*Cultural Sensitivity of Instruments Used in Women Experiencing Preterm Labor*  
Hampton University  
9/30/2002-6/30/2004  
Principal Investigator: **Marilyn Stringer**

**Neville Strumpf**

*Building Academic Geriatric Nursing Capacity-Administration Scholars*  
American Academy of Nursing  
7/1/2002-6/30/2004  
Mentor: **Neville Strumpf**  
Fellow: Elizabeth Miller

*Care at the End of Life in a PACE Program*  
The John A. Hartford Foundation through Rand Corporation  
6/1/2003-5/31/2004  
Principal Investigator: **Mary Naylor**  
Co-Investigator: **Neville Strumpf**

*Center for Gerontologic Nursing Excellence*  
The John A. Hartford Foundation  
1/1/2001-12/31/2006  
Principal Investigator: **Neville Strumpf**  
Co-Investigators: **Lois Evans, Mary Naylor**

*Development of a Palliative Care Minor*  
Arcadia Foundation  
6/1/2003-5/31/2006  
Principal Investigator: **Neville Strumpf**



*Geriatric Nursing Education Project*  
American Association of Colleges of Nursing  
7/1/2002-6/30/2005  
Principal Investigator: **Neville Strumpf**

*John A. Hartford Fellowship: Building Academic Geriatric Nursing*  
The John A. Hartford Foundation through the American Academy of Nursing  
9/1/2002-2/28/2005  
Mentor: **Neville Strumpf**  
Fellow: **Cheryl Monturo**

*John A. Hartford Foundation Geriatric Nursing Scholarship*  
The John A. Hartford Foundation through the American Academy of Nursing  
8/10/2001-8/31/2003  
Mentor: **Neville Strumpf**  
Fellow: **Anna Beeber**

*The Cancer Experience of Israeli Elders*  
Oncology Nursing Society  
3/15/2002-3/15/2004  
Principal Investigator: **Neville Strumpf**  
Co-Investigator: **Cathy Musgrave**

**Eileen Sullivan-Marx**  
*Building RN Training Skills for Geriatric Education Excellence*  
Health Resources & Services Administration (1-D62HP01912)  
9/1/2003-6/30/2006  
Principal Investigator: **Eileen Sullivan-Marx**  
Co-Investigators: **Kathleen Burke, Linda Carrick, Rebecca Phillips, Rosalyn Watts**

*Hospital Staffing, Physical Restraint and Patient Outcomes*  
National Institutes of Health (1-K01-NR-00157-02)  
9/1/2000-8/31/2004  
Principal Investigator: **Eileen Sullivan-Marx**  
Co-Investigators: **Linda Aiken, Neville Strumpf**

*Visiting Nurse Service of New York Scholars Program*  
Visiting Nurse Service of New York  
9/1/2003-8/31/2005  
Principal Investigator: **Eileen Sullivan-Marx**  
Co-Investigator: **Karen Schumacher**

**Joyce Thompson**  
*Forming the Building Blocks of Leadership for Nursing Students Across Academic Levels*  
Helene Fuld Health Trust  
7/31/2001-12/31/2003  
Principal Investigator: **Joyce Thompson**  
Co-Investigator: **Linda Carrick**

**Nancy Tkacs**  
*Counterregulatory Failure and the Arcuate Nucleus*  
National Institutes of Health (5-R21-DK-059754)  
9/29/2000-8/31/2003  
Principal Investigator: **Nancy Tkacs**

*Hypoglycemia-Associated Autonomic Failure and the Brain*  
National Institutes of Health (1-KO1-DK-02899-02)  
8/15/2001-6/30/2005  
Principal Investigator: **Nancy Tkacs**

*Menstrual Cycle and Insulin Sensitivity in Diabetes*  
National Institutes of Health (1-F31-NR-008179-01)  
9/1/2002-8/31/2005  
Mentor: **Nancy Tkacs**  
Fellow: **Kimberly Trout**

**Lorraine Tulman**  
*Exploration of Safe Sex Practices for HIV Prevention Among Rural Thai Women in Northern Thailand: Comparison of 1933 and 2003*  
Sigma Theta Tau International  
6/1/2003-5/31/2004  
Co-Investigator: **Lorraine Tulman**

**Stella Volpe**  
*Changing Cafeteria Portion Sizes to Prevent Weight Gain*  
National Institutes of Health (1-R03-DK063991-01)  
1/1/2004-4/30/2005  
Principal Investigator: **Stella Volpe**

*School-Based Prevention of Type 2 Diabetes in Children*  
George Washington University  
3/1/2004-8/31/2004  
Principal Investigator: Gary Foster  
Co-Investigators: **Terri Lipman, Stella Volpe**

**Terri Weaver**  
*Complementary and Alternative Medicine Adherence in Asthma*  
American Lung Association  
7/1/2001-12/23/2003  
Mentor: **Terri Weaver**  
Fellow: **Maureen George**

*Impact of CPAP on Functional Outcomes in Milder OSA*  
National Institutes of Health (1-R01-HL-076101-01)  
9/1/2003-6/30/2007  
Principal Investigator: **Terri Weaver**

*Predictors of Adherence in CPAP Treatment for OSA*  
U.S. Department of Veterans' Affairs  
6/1/2003-9/30/2004  
Principal Investigator: Amy Sawyer  
Co-Investigator: **Terri Weaver**

*SCOR in Neurobiology of Sleep and Sleep Apnea.*  
National Institutes of Health (2-P50-HL-060287)  
9/15/2003-8/31/2004  
Principal Investigator: Allan Pack  
Co-Investigator: **Terri Weaver**

## Presentations

Clarke, S. Challenges and Successes in Collaborative Nursing Research across Borders: The International Hospitals Outcome Study. Sigma Theta Tau International, 14th International Nursing Research Congress, July 12, 2003, St. Thomas, Virgin Islands.

Cuellar, N. Diagnosis and Treatment of Restless Legs Syndrome. Boston National Advanced Practice Conference, November 6-8, 2003, Boston, MA

D'Antonio, P. Women and Nurses: Rethinking Educational Achievement in the 20th Century America. International Nursing History Conference, September 4-5, 2003, Oxford, UK.

Fairman, J. Consultation. Dublin University, March 2004, Dublin, Ireland.

Friese, C. The Nurse Work Environment in Magnet Hospitals: A Comparison between Oncology and Medical-Surgical Units. Sigma Theta Tau International, 14th International Nursing Research Congress, July 10, 2003, St. Thomas, Virgin Islands.

Friese, C. International Differences in Nurse Practice Environments: Findings from the International Hospital Outcomes Research Consortium [Co-Author: Eileen Lake]. 5th International Conference on the Scientific Basis of Health Services, September 22, 2003, Washington, DC.

Gennaro, S. Evidence-Based Nursing, November 2003, Milan, Italy.

Kagan, S. Visiting Professor, University of Hong Kong, February 2004, Hong Kong SAR.

Kagan, S. Merging Nursing and Business Education for Nurse Managers of the Future. 2nd International Nursing Management Conference, November 2003, Belek, Turkey.

Kagan, S. Karolinska Institute, Department of Nursing, September 2003, Stockholm, Sweden. (Invited Visiting Researcher).

Kagan, S. Nursing Intervention with Older Cancer Patients. School of Health & Social Care, Oxford Brookes University, August 2003, Oxford, UK.

Kagan, S. Language Lessons Learned from Older Adults with Cancer: Merging Grounded Theory and Practice. University of Nottingham School of Nursing, Faculty of Medicine and Health Sciences, August 2003, Nottingham, UK.



Outgoing University of Pennsylvania President Judith Rodin (seated) and Provost Robert Barchi (sixth from left) are pictured here with the deans of Penn's 12 schools.

Lake, E. International Differences in Nurse Practice Environments: Findings from the International Hospital Outcomes Research Consortium [Co-Author: C. Friese]. 5th International Conference on the Scientific Basis of Health Services, September 22, 2003, Washington, DC.

Lake, E. A Validation Study of the Practice Environment Scale of the Nursing Work Index [Co-Author: L.S. Leach]. 37th Biennial Convention of Sigma Theta Tau International, November 2003, Toronto, Canada.

Lake, E. A Good Place for Nurses to Work: Examining the Nursing Practice Environment of a Broad Set of Hospitals [Co-Author: C. Friese]. Sigma Theta Tau International, 14th International Nursing Research Congress, July 2003, St. Thomas, Virgin Islands.

Lang, N. Strategic Advisory Group for the International Classification for Nursing Practice. International Council of Nurses, October 2003, Geneva, Switzerland.

Lang, N. Directors' Meeting. Pan American Nursing and Midwifery Collaborating Centers, September 22-23, 2003, Washington, DC.

Lang, N. Translation of the Science of Nursing Informatics and the Validation of the ICNP. 10th Academic Conference on Nursing Diagnosis and the Japanese Society of Nursing Diagnosis, June 2004, Osaka, Japan.

McCauley, K. Merging Nursing and Business Education for Nurse Managers of the Future. 2nd International Nursing Management Conference, November 2003, Belek, Turkey.

McCauley, K. Baccalaureate Nursing Education. CGFNS, January 12, 2004, Beijing, China.

Medoff-Cooper, B. Neonatal Nursing and Research Utilization. Karolinska Institute, May 2004, Stockholm, Sweden.

Medoff-Cooper, B. Quality Improvement in Neonatal Nursing. Karolinska Institute, May 2004, Stockholm, Sweden.

Medoff-Cooper, B. Study Abroad Program with Penn Nursing. Hadassah Hebrew University, March 2004, Israel.

Medoff-Cooper, B. Program of Research. University of Hong Kong, October 2003, Hong Kong SAR.

Meleis, A. Penn's Nursing's CRISP-5 Report [Co-presenters: N. Lang and B.A. Swan]. WHO Collaborating Centers Global Network Meeting, March 2004, Johannesburg, South Africa.

Meleis, A. Theory as a Source and a Resource: A Map for Nursing Future. Advancing Knowledge through Education, Practice and Research; 1st Ministry of Health International Nursing Conference, August 2003, Singapore. (Keynote Speaker).

Meleis, A. Developing and Analyzing Theories, Defining Theory and Defining Nursing, and Our Theoretical Journey and State of Nursing Discipline. Lectures to Graduate Students, University of Singapore, August 2003, Singapore.

Pinto Martin, J. NINDS, August 2003, Norway.

Postmontier, B. State of the Science: The Treatment of Postpartum Depression. Collaborative Conversation Conference, Institute of Health and Community Studies at Bournemouth University, September 10, 2003, Bournemouth, UK.

Reale, B. Midwifery Education. International Confederation of Midwives, Trinidad/Tobago, April 2004.

Richmond, T. Psychiatric Profiles of Individuals Sustaining Minor Injuries. 7th World Injury Conference, June 2004, Vienna, Austria.

Riegel, B. Psychometric Testing of the Self-Care of Heart Failure Index. American Heart Association Scientific Sessions, November 11, 2003, Orlando, FL.

Riegel, B. Computing CPR and AED Skill Assessment Score. Poster at the AHA Resuscitation Science Symposium, November 8, 2003, Orlando, FL.

Simpson, E. Sub-Optimal Restraints for Children among Diverse Groups of Drivers. 7th World Injury Conference, June 2004, Vienna, Austria.

Sochalski, J. Merging Nursing and Business Education for Nurse Managers of the Future. 2nd International Nursing Management Conference, November 2003, Belek, Turkey.

Spatz, D. Protecting Breastfeeding in Marginalized Population. IWK Grace Perinatal Conference, March 31, 2004, Halifax, Nova Scotia. (Invited Keynote Speaker).

Strumpf, N. Building the Evidence Base for Individualized Care for Frail Older People. University of Hong Kong, February 2004, Hong Kong SAR.

Strumpf, N. Shifting Policy and Practice in Acute Care: Restraint Free Care for Hospitalized Elders. Medical and Health Research Network, February 2004.

Swan, B.A. Closing the Gap between Evidence and Practice: An Overview. World Health Organization, December 2003, Geneva, Switzerland.

Swan, B.A. Breastfeeding and HIV/AIDS Transmission. Global Forum for Health Research, December 4, 2003, Geneva, Switzerland.

Swan, B.A. Poster. Global Network Meeting, March 2004, Johannesburg, South Africa.

Swan, B.A. Improving Health through Research: Implications for Evidence-Based Practice. Multidisciplinary International Health Care Conference, March 2004, Johannesburg, South Africa.

Weaver, T. How much is enough CPAP? 7th World Congress on Sleep Apnea, July 3, 2003, Helsinki, Finland.

# Changing Penn Nursing's Environment

The new construction at the School of Nursing will reflect the School's stature as a nationally-ranked institution with a vision for the future that will sustain its position at the cutting edge of nursing education, research, and practice. But perhaps even more significantly, the renovations demonstrate how much the School values students, faculty, and staff by providing an improved environment to better support and enhance their ongoing work.

Those entering the building's new, beautiful glass-front entry will be greeted personally at a reception desk and offered information and direction to better welcome and guide visitors, students, and family members. A new café on the ground floor will provide not only a place for nursing students to socialize over coffee between classes or meet with study groups, but will be also be a fully equipped wireless web environment to support the use of laptops, cell phones, and hand-held devices.

Now, also on the ground floor, students, prospective applicants, and their families will find the Offices of Student Services and Enrollment Management, relocated more conveniently from the 4th Floor. On the opposite side of the ground floor, a new entrance will be constructed to the developing health sciences campus, benefiting both the School and the University by creating a practical passageway for students. Throughout the ground floor, there will be display cases to highlight the work and history of the School, as well as interactive com-



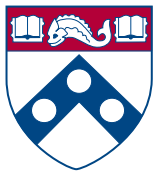
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puter kiosks providing students and visitors information about the School, upcoming events and other featured programs.

Important infrastructural changes include significant upgrades to the elevators and the construction of an open stairway to connect the lobby with the first floor classrooms.

Completion is scheduled for August 2005.

On the back cover:  
Penn Nursing faculty and staff greet the new University of Pennsylvania President Amy Gutmann during her procession.



**Penn  
Nursing**

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