Yale Nursing Matters

Partnerships that advance nursing science
matter

n. Something that occupies space and can be perceived by one or more senses; a physical body, a physical substance, or the universe as a whole. A subject of concern, feeling, or action. Something printed or otherwise set down in writing.

v. To be of importance or value. Signify.
While rugged individualism may drive us ever forward, our partnerships sustain us. Together we accomplish so much more than is possible individually. This issue of Yale Nursing Matters sets out the stories of a number of our most innovative and sustaining partnerships.

But behind these stories are even more partnerships, and there is one I would like to tell you about. It is a story of unusual vision and generosity. It is the story of Barbara Thomason.

Barbara Thomason cares deeply about cancer survivorship and women’s health. A long-time supporter of the American Cancer Society, Barbara recognized that quality of life matters. And so she took note of the research of Dr. Tish Knopf, work that addressed quality of life and health promotion in women with breast cancer. Barbara committed herself to improving quality of life by offering to sponsor an American Cancer Society Professorship in Nursing. Since 1999, Tish has held the ACS Professorship in Nursing sponsored by Barbara through the New England Division.

The prestigious and highly selective ACS Professorships support nursing faculty in the conduct of their research activities, by releasing them from competing responsibilities. When Tish was appointed to her ACS Professorship, there were 6 in the US; today there are 4 Professorships. No other ACS Professorship is solely supported by one donor.

Barbara’s commitment is rooted in her hope for progress, not in a need for recognition. Nonetheless, her story of support for our work—the story of a partnership—may seed other partnerships. We are most grateful to Barbara Thomason and to the many other partners with whom we work to improve health care for all people.

Catherine Lynch Gilliss, dNSc, RN, faAN
Dean and Professor
The University as Urban Citizen:
“As colleges and universities, in New Haven and throughout the nation, we now find ourselves not only charged with our historic missions, we find that our institutions have become more central than ever to the public good and socio-economic well-being of the great metropolitan areas which are the hearts of our society. And conversely our futures are tied more than ever to the future of America’s cities.”

—Yale University President Richard C. Levin
addressing the Greater New Haven Chamber of Commerce at the Annual Awards Breakfast on October 15, 1997
As the seniors in the Career High School Nursing Assistant Program filed into room 207, their excitement was palpable. The sun shone bright in the cloudless sky. The end of the academic year was almost upon them. Soon they would take what they have learned at Career High and start making a difference in people’s lives. The students spoke to one another in rushed phrases, their brief bits of conversation barely discernible. Their bursts of laughter were louder than usual, their hands more restless. As the bell rang they were reluctant to take their seats. When they finally did, for many the gaze turned inward. Suddenly their expressions were serious, contemplative. This would be one of the last times they would meet as a group.

For that day’s presentation they were asked to sit in a circle. They studied the faces of their classmates, briefly glanced over at their instructor, Mrs. Kaufman, and then settled their eyes upon Florence Wald, the day’s guest speaker, who at that moment walked through the door.

She was slightly built, slow in her movements, but graceful all the same. At first the students did not know what to make of her. This was evident in how they shuffled their feet beneath their desks, wrung their hands, and stole furtive glances in the direction of their instructor. When Mrs. Kaufman told them that the morning’s speaker would be one of the leading advocates for hospice care, they were excited at the prospect; but could Mrs. Kaufman have been mistaken? The woman before them was not at all what they had imagined, as one or two of the students made a point of whispering to their neighbors. Could this be the same person who still ran a hospice care program for prison inmates?
It was the woman’s eyes that eventually won them over. They shone with an intense curiosity and a fervor not unlike their own. As Florence joined the students in the circle, the shuffling of feet stopped, and the room became quiet. For almost a full minute, Florence did not break that silence. Instead she acknowledged each of the students with her eyes until she was sure that she had everyone’s attention. Then softly, she spoke.

“How many of you think about the fact that you are going to die one day?” Florence asked. There was no reply. Florence acknowledged this and went on. “Thinking and talking about death, whether our own or that of a loved one, can be very uncomfortable,” she said. “We don’t like to talk about it, but it is a natural part of life. There is nothing wrong with sharing your thoughts and feelings with friends and family.” Still, there was no response.

Florence continued: “I lost my husband not too long ago,” she said. “Losing someone we care about can be devastating. However, being there for our loved ones during the final stage of their life can also be one of the most rewarding experiences for us and for them.”

Perhaps it was that Florence’s eyes shone so earnestly, and seemed so easy to look into. Or perhaps it was the quiet, dignified way she spoke. Tentatively, from the other end of the room, a hand went up. In an almost inaudible tone, one student told of the recent and unexpected death of a loved one, how strongly it affected her, and how her family still struggled in dealing with the loss. The student paused several times to regain composure. At the end of the story, she was not the only one whose eyes were brimming with tears.

And then an amazing thing happened. One by one, more hands went up. The first student’s story opened a floodgate through which thoughts and emotions began to surge. By the end of the discussion all of the students had told a story or offered their opinion. For several students, this was the first time they had spoken of their feelings about death and dying aloud. For two students, the discussion provided further encouragement to consider hospice nursing as a career.

Florence Wald’s presentation on death and dying is part of ysn’s partnership program with Career High School which began almost 10 years ago. The program continues to expand to involve more ysn faculty and students, and to incorporate new ways to generate interest among young people in nursing careers. Florence, like many at ysn, places great value on community partnerships. “They help to inform us about emerging needs in the community, and how we can help meet those needs,” she said.

“The ysn community has long realized the importance of working with local schools to encourage their students to pursue careers in nursing,” said Professor Heather Reynolds, a participant in the program. Last fall, Professor Reynolds, in a presentation to Minna Kaufman’s class, discussed her own experience of becoming a nurse-midwife, and spoke about her clinical practice at Yale-New Haven Hospital. “By supporting these kids’ efforts today, we are helping to strengthen the health care workforce of tomorrow,” she said.

Since its inception the program has included a lecture series by ysn faculty on a variety of nursing-related topics and clinical skills training by ysn students for Career students. While these activities continue to be an essential part of the program, a number of new initiatives
have been incorporated recently. Among them is a mentorship program that partners YSN students, faculty, and staff with Career seniors during the often stressful college application process. Members of the YSN community help these students with writing and editing of their college essays and with career planning. “We try to show them all the possible career options nursing has to offer, to get them more excited about nursing, and to help them start to develop an educated career plan,” says Sharon Sanderson, past coordinator of the program, who continues to mentor Career students. Other initiatives, such as the Mountaingales Scholarship Fund for College-Bound Career Seniors and the Howard University Summer Nursing Immersion Program (see related articles, pp. 12 and 13), were also launched this year.

In a recent letter to Dean Gilliss, Minna Kaufman wrote: “Your faculty, students, and staff have truly been a gift to all of us at Career, and your kindness and support continue to help open the minds and lives of our young people. So many of you have been helpful in this effort, and it was great to have Florence Wald become part of our ‘family’ this year. I feel blessed that our paths have crossed.”

As with many local partnerships launched at YSN, collaboration with Career High School has provided a model that may be applied beyond the boundaries of Greater New Haven. At a panel discussion titled “Partnering for the Future of Nursing” that took place during the 2003 Alumni Weekend, Vanessa Reid, MSN ’05, and Ilya Sverdlov, the Partnership Program’s coordinator, presented the highlights of this year’s program to the school’s alumni. The presentation was very well-received. “The enthusiasm among our alumni for this program was overwhelming,” said Dean Gilliss, who was one of the panelists. “Our alumni expressed a great interest in the development of similar initiatives in other parts of the country. We are encouraged by their support and plan to work with them to incorporate this partnership model into education initiatives across the country, particularly in regions where our graduates live and work.”

At the end of Florence Wald’s presentation, the students seemed reluctant to walk away from room 207. By the time the bell rang, however, all but one had gone. The one remaining student lingered by Florence’s side. It seemed she knew what she wanted to do, but was not sure how to go about it. Florence made the first move. From her chair, she reached her arms out, and the student immediately responded. The student embraced Florence, spoke a few words in her ear, then smiled shyly and quickly walked out of the room. Although no one else heard what was said, it was evident to those who were privileged to witness the exchange that for both women, the words carried the weight of the world at that moment.
“It is said that charity begins in the home, and then spreads abroad. Therefore, before we can heal a nation addicted to tobacco, we must start in our own backyard.”

—Briarson Burke, Vice Chairman, Students Teaching Against Tobacco in Connecticut (STATIC)

Striking Back Against Teen Smoking in New Haven

Every day more than 6,000 persons under age 18 try their first cigarette, and every day more than 3,000 youth become daily smokers. According to the Centers for Disease Control, at least 4.5 million adolescents in the United States currently smoke cigarettes. Most youth who use tobacco continue to do so into adulthood, increasing their risk of lung cancer and heart disease more than if they had started smoking later in life. Although adults generally are aware of the health consequences of cigarette smoking, many adolescents appear not to know about the long-term consequences or ignore them. In Connecticut, almost one-third of high school students and 13.1% of middle school student currently use some form of tobacco, with inner city youth at an even greater risk for becoming addicted to tobacco before the age of 18. While the national and state statistics are grim, there is a silver lining. According to the U.S. Surgeon General’s Report on Reducing Tobacco Use, implementing effective educational programs for preventing tobacco use could postpone or prevent smoking onset in 20% to 40% of U.S. adolescents.
Recognizing that area youth are vulnerable to the initiation of tobacco use and that minimizing such possibility requires a systematic prevention strategy, two Yale nursing professionals have joined forces with students at Career High School to curb tobacco use among teens in New Haven’s public schools. In 2001, Alison Moriarty-Daley, assistant professor at ysn, and Sandy Hurd, Smoking Cessation Counselor in the Women’s Center at Yale New Haven Hospital, launched “Career Against Tobacco (c.a.t.)”, a peer leadership program focused on tobacco use prevention, counter marketing and tobacco free lifestyles.

Both Sandy and Alison had strengths that would contribute to the success of the program. Since 1996, Sandy has been helping pregnant smokers realize the risks of smoking to their fetus and working with these women to plan methods to stop or reduce smoking. She is also the liaison to the state initiative Students Teaching Against Tobacco in Connecticut. (static). “Over the years, I have been struck by the number of women who had started smoking as early as age nine,” said Sandy. “I began to realize that if we are to affect change in the health of our community and our nation, health educators need to find ways to reach youth before they become addicted to tobacco.”

Connecticut Department of Public Health Youth Tobacco Survey 2000 found that positive role modeling reduces the risk of tobacco use by teens. These findings provided the direction for c.a.t.—to engage high school youth as peer education counselors who would assist in designing and implementing the program.

Alison, as coordinator and nurse practitioner at Career’s School Based Clinic, was expert at developing teen-friendly health education projects. “Having a close relationship with these kids throughout their four years at Career High School, I realized that Sandy and I had access to a diverse and talented pool of students to recruit as peer leaders,” she said.

In the spring of 2001, a group of Career High School students were approached by Alison to participate in designing an educational program for middle schools students. “There was great enthusiasm among the students to become peer leaders,” she said. “In addition to brainstorming about the program content that would be appealing to middle school students, peer leaders were extremely helpful in presenting ideas specifically aimed at addressing the needs of students in the middle schools that they themselves had once attended.”

As part of the program design, peer leaders conducted research on the internet about existing peer-lead prevention initiatives and compiled resources to incorporate into their program. The group met bi-weekly throughout the fall of 2001. Sandy provided the educational curriculum for the meetings that emphasized five areas: tobacco facts; psychological effects of tobacco; second-hand smoke; advertising/counter marketing strategies of tobacco companies; and myths about tobacco use. Once the peer leaders had a solid education foundation in each of these areas, they were put to the task of designing a one-hour presentation for middle-school students that was to be developmentally appropriate, educational, and fun. “The peer leaders came up with some really great ideas,” said Sandy. The program developed into three parts: an educational video, an interactive game, and a question and answer session. The video, “Smoking Truth or Dare,” challenged teens to find out the truth about tobacco, particularly the effect of smoking on their bodies. The interactive game, titled “Tobacco Challenge,” was based on a Jeopardy format and had five categories with five questions of increasing difficulty in each. Each question, developed by the peer leaders, was assigned a point value of 10 to 50. The middle school student who had the most points at the end of the game was awarded a certificate and a pair of movie tickets. “Our hope in using the game format was to teach students the essential information as part of a fun activity that encouraged their participation,” said Alison. In concluding the one-hour presentation, peer leaders engaged the middle school students in a question and answer session, using props such as A Jar of Tar, (representing the tar collected in the lungs of a person who has smoked one pack of cigarettes per day for one year), Mr. Yuk Mouth (pointing to mouth cancer, gingivitis, tooth decay and tooth loss as a few of the health risks of tobacco use), and Tarboro Pack (a larger than life pack of cigarettes that identifies all chemicals found in cigarettes).
Peer leaders practiced weekly in the winter of 2001, and presented the program in April 2002 to approximately 150 6th grade students at Sheridan Middle School in New Haven. “The program was very well received,” said Alison. “The students interacted well, were kept engaged because of the fun, visual nature of the presentation, and enjoyed the fact that the presentations were made by peers from a neighboring high school.” Teachers also found the presentations useful. On their request, education materials developed by the peer leaders were shared with the middle school as models for future class exercises and exams. “On the whole, it was an extremely successful first year,” Alison said.

All the original peer leaders graduated in the spring of 2002. “We thought we would be faced with a significant challenge of recruiting a new group of high school students, but that was not the case,” said Alison. “Because freshmen and sophomore students at Career had heard a great deal about C.A.T. from the older students, many of them expressed a strong interest in keeping the program going.”

At the initial informational session for new students that took place in the fall of 2002, 12 students expressed interest in becoming peer leaders. “This was a very energetic and self-motivated group who quickly learned the program and began making modifications to the game questions,” said Alison. The group wrote presentation scripts to be memorized by each peer leader, “so that any one of us can present on a variety of subjects at a given moment,” one participant explained. Another effective technique involved a peer leader who had once been addicted to cigarettes and dip incorporating that personal experience into the presentation. “This group of students made C.A.T. their own,” said Alison, “and this really showed during their presentations to 6th graders.”

“Probably the greatest strength of C.A.T. was the enthusiastic response of high school students to playing a major role in the program’s design and implementation,” said Alison. “Given the chance to participate and the responsibility to make this program work, the students truly excelled.”

Sandy and Alison hope that the C.A.T. model will help curb teen tobacco experimentation in New Haven, and continue to provide Career High School students with the opportunity to role model a healthy lifestyle to their peers. With continued support from the Connecticut Department of Public Health and the Connecticut Area Health Education Center (AHEC), and a strong endorsement from Career High School Principal, Charles Williams, the program is likely to do just that. “The Career Against Tobacco Program is a very effective approach to teaching young people about the health risks of tobacco use,” said Principal Williams. “Alison and Sandy have done an outstanding job in mobilizing our students to help lead this effort.”

C.A.T. will begin providing the program to more 5th and 6th graders in the community again this fall.

Scholarships for Career Nursing Scholars

Though not natives of New Haven, four VSN students—Carrie Szejk, Molly Steele, Kipp Bovey, and Mica Muskat—have established a scholarship fund at Hill Regional Career High School to help graduates go on to nursing school. The four VSN students, who call themselves the Mountaingales after the pioneer nurse, Florence Nightingale, spent several weeks in the summer 2002 hiking the Long Trail. The nearly 300 mile trail extends from Vermont’s border with Massachusetts to its border with Canada, covering 30 mountains in the process. The Mountaingales carried 30-40 pound backpacks, toting sleeping bags, stoves, food, tents, and first aid supplies. Thanks to the generous contributions of all the Mountaingales’ supporters in the Yale and the Greater New Haven communities, these “hiking nurses” have far surpassed their scholarship goal of $5,000 for a total of more than $7,000.

Career High School graduate Dawn Marie L. Onofrio (center in photo), was chosen as the 2003 VSN Mountaingales Scholar. On June 4, 2003, the Mountaingales awarded Dawn a $4,000 scholarship that will go toward defraying the cost of her college tuition. Dawn will also be mentored by Professor Alison Moriarty-Daley, a member of VSN faculty, throughout her academic years.

The Mountaingales intend to institutionalize this initiative. They plan to identify incoming VSN students who will maintain this scholarship fund and continue the strong tradition of collaboration between VSN and the New Haven community. In addition to aiding local students, by venturing on their trip, the Mountaingales helped to increase awareness about the need to promote nursing careers in a time of great nursing shortage in the Greater New Haven community and in communities nationwide.
Normally, the sight of a tent full of human body parts, skulls and bones spread across linoleum covered tables and spilling out onto the New Haven Green would send one running for cover, but when that tent is manned by the Pellico team, families just keep coming for more.
Dear Mrs. Pellico,

You taught me a lot! Now that you came I will put on suntan lotion every time I go outside. I thought I knew a lot about the body, but I was wrong. Now that you’ve come I feel like I got a master’s degree in nursing school. You’re very very smart. I’m thinking of being a nurse myself.

Your future nursing student,
Carly L.

Dear Mrs. Pellico,

Thank you for coming in. I never knew anatomy was so fun. I never knew that smoking made the lung look like that. My dad’s friend smokes, and I think she told him about that. I had a great time. Once again thank you.

Your friend,
Vanessa V.

Thigh, spine and rib bones, hearts, lungs and intestines set the stage at New Haven’s International Festival of Arts & Ideas on the weekend of June 14–15, when Linda Pellico, along with about two dozen YSN volunteers, brought “The Heart of the Matter” to the New Haven community. For the entire weekend, from noon to 6 p.m., YSN students and faculty educated the public on the wonders of the human body. They could be found blowing up pig lungs, teaching the basics of x-ray interpretation, solving the human skeleton puzzle, and putting organs where they belonged. The Pellico team had four table presentations going at once, and when the number of participants wishing to hold a fake brain-cauliflower or to try on the skeleton costume grew too large, the arts and craft projects were moved onto the lawn. The Heart of the Matter has been a major attraction of the Festival for the past several years. “Each year we keep getting bigger and better,” said Linda Pellico, who coordinates the event. “We are already thinking about the new activities that we will incorporate into our presentation next June.”

Involvement in the Festival is part of a broader YSN community outreach initiative lead by Linda Pellico, known as “Have Bones, Will Travel.” Linda started the program in 1997 with the goal of firing up schoolchildren’s enthusiasm for science, as well as inspiring them to consider nursing as a possible future profession. Her presentations in area public schools, which Linda tailors to fit the age and education levels of the youngsters, cover basic human anatomy while emphasizing how the children can keep their own bodies safe and healthy. At every presentation, which can run from 45 minutes to over an hour, schoolchildren look in amazement as Linda pulls out the three-dimensional objects she brings to the schools to illustrate her lessons.

If you were to find yourself in Linda’s office, you would discover a number of potential “props” scattered throughout the room. “One of the things that inspired me to start the program is that we have access to all these wonderful objects at YSN that children can learn from,” says Linda, who also coordinates an anatomy class for YSN students. “There is no better way for children to learn than to use their own senses—to touch, see, feel and smell what they are learning about. Seeing the real organ, bone or devise up close makes more of an impression than simply looking at pictures or diagrams.”

According to Linda, the skull, pig lungs, and sheep brain are among the most popular attractions, never failing to get the attention of her young audience members. However, Linda uses more than bones and brains to demonstrate the workings of the human body. She lets the students use the stethoscope to listen to their own heartbeats, and plays tape recordings to
“There is no better way for children to learn than to use their own senses—to touch, see, feel and smell what they are learning about. Seeing the real organ, bone or devise up close makes more of an impression than simply looking at pictures or diagrams.”

Linda compares the rhythmic beat of a healthy heart with the irregular beating of an ill heart. Linda also teaches the children about good nutrition and hygiene, as well as the importance of making healthy decisions.

Linda brings the program to approximately one area school per week, but has sometimes visited as many as three schools weekly. She is usually accompanied by YSN students or faculty, and is quick to share the credit with them for much of the program's success.

“I will never get tired of bragging about the remarkable students and faculty who participate in this program,” she says. “They are incredibly skilled at engaging the schoolchildren, and the children find their enthusiasm for the subject matter contagious.” According to Linda, her fellow presenters help make the event so much fun that the children don't realize while the "show" is going on that they are being taught. “That's the trick,” she says. “With the right amount of enthusiasm, the help of fun props, and a participative approach, children develop knowledge that is reflective understanding rather than mere memorization. It is evident from the letters we get from these students and their teachers following our visits how much important health and wellness information they have retained.”

“Linda Pellico and her Yale School of Nursing volunteers provide a great service to our community,” said New Haven Mayor John DeStefano. “The 'Have Bones Will Travel' program is an important part of this city's effort to educate schoolchildren about health and wellness, and about the dangers of alcohol and drugs.”

“This program provides an opportunity for the public to see nurses doing something independently, conveying knowledge, but also having fun,” says Linda. “I think this helps to heighten their expectations of what nursing is all about. My hope is to educate all participants, the children, parents, school teachers, general public and administrators about the wonders and dynamic nature of the human body and the profession of nursing.”

Two Career High School juniors, Isobo Erekeosima and Chaoxia Lu (featured above with their instructor, Minna Kaufman) were awarded scholarships to participate in the Summer Nursing Immersion Program (SNIP) at Howard University this past summer. During the six-week residential program, 20 students were exposed to enhanced academic and scientific survival skills to foster their interest in the nursing profession.

The theoretical basis for the design of SNIP has been formed, in part, by the success of the Yale Howard Scholars Program. “Our experience with the Yale-Howard Scholars Program has taught us that commitment to research careers as evidenced by graduate school enrollment and perception changes can occur through a six-week residential immersion program,” said SNIP coordinator, Dr. Carolyn J. Harris. She identified the program's four basic dimensions: (1) academic and scientific strengthening; (2) nursing career exploration and identity formulation; (3) socialization to college; and (4) cultural expansion and social bonding.

Students had extensive preceptor experiences with professional nurses in the clinical, educational, research, or policy arena. These experiences were complimented by classroom instruction, as well as socially and culturally enriching activities, such as field trips to the National Institutes of Health, Capitol Hill, Kings Dominion, and the American Folklife Festival.

“It was a really great experience for me,” said Chaoxia. “Spending these weeks at Howard has improved my understanding of nursing and my academic skills. It has helped me become more focused as I continue to explore my career options.”

“The SNIP experience has made me more convinced that I want to go into the nursing profession,” said Isobo. “By being a nurse, I will know that what I do can make a difference in people's lives, and that's a good feeling to have at the end of the day.”
Igniting the passion for nursing students (and past Yale-Howard Scholars) Nicole Laing (left) and Sabrina Singleton (center) with associate director of the Yale-Howard Partnership Center, Dr. Sheryl A. Nichols (right), during the 2003 Yale-Howard Scholars Research Presentations Program held at vss
for **nursing** research

We have strength, special strength
Strength to survive and to look ahead
Look ahead, so that one day we will make history
In this history, all men, women and children of color will be included
We will make this history together
History to stop disparities once and for all
Howard, like us, march! The fire is already ignited
The light is on, the candle is burning
At last, let all say, we had a part in this.

—Chinenye Udemezue

On October 10, 1986, a powerful earthquake struck El Salvador in Central America. The 5.4-magnitude quake killed hundreds of people in San Salvador, the capital, as well as in surrounding towns and villages. Hundreds more were injured and thousands were left homeless. During the summer and fall of that year, Graciela Rodriguez-Santos, age 6, was recovering from Hepatitis A in the children’s wing of a hospital in San Salvador. She was released from the hospital on October 2. Eight days later, when the earthquake struck, the wing of the hospital where Graciela had resided collapsed. Graciela was lucky; dozens of other patients and hospital workers were not. The earthquake devastated many residential neighborhoods in San Salvador, including Graciela’s. She and her family, along with hundreds of other displaced city residents, found temporary shelter in the city’s main soccer stadium. “The conditions for my family and my neighbors were horrible,” recalled Graciela. “The tragedy that touched so many lives was compounded by the poverty, hunger, and unsanitary conditions at the shelter.”

Graciela’s family immigrated to the United States soon after the earthquake. Their story is similar to those of many immigrant families. They settled Riverdale, Maryland, mainly because the region already had a significant population from El Salvador. They learned English; the adults found work, the children went to school and made new friends. They began to adjust to their new life, and to feel more at home in their adopted country. Then, when Graciela was 10 years old, another tragedy struck. Her grandfather was diagnosed with cancer. “He lived for two years with cancer,” said Graciela, “and we took care of him. I loved him so much and when it got to the point that he couldn’t care for himself, I would do it for him. It helped to ease the pain and to keep us close.”

In the hospital where her grandfather spent his last months, Graciela met and started interacting with nurses on his floor. She recalled: “I really admired what they did, how they
“The Yale-Howard Scholars program is a great way for nursing students to get exposed to research and to launch their career as nurse researchers.”

cared for my grandfather. They treated him like a real person, not just a patient. I wanted to be just like them, to help people who were really sick like my grandfather.”

At one point a nurse presented her with a stethoscope. “It was one of my most prized possessions,” said Graciela. “From that moment I felt that God put it in my heart to be a nurse.”

Following her heart, Graciela enrolled at Prince George's Community College in Maryland for an associate's degree in nursing. She also received her registered nursing license from the state of Maryland. Besides being a model student, Graciela became an advocate for the underserved in the area where she lived. As part of a class project, she conducted a community health assessment. She found that a significant number of people, especially from minority and immigrant populations, did not have access to health care. “There were many children who did not have health insurance,” said Graciela. “These families were in desperate need of support.”

She began networking with other advocates in the area to connect families in need of health insurance with community organizations that would assist them. “Because of the work we did, some of the children were eventually able to get health insurance,” she said. “I was inspired by that success.”

Recognizing Graciela's special talents, her mentors at Prince George's encouraged her to apply for the school's Honors Academy. Graciela applied and was accepted. Shortly after, she received a full scholarship to study nursing at Howard University. She recalled: “It was a dream come true. I had heard so much about the talented, dedicated nursing faculty at Howard, and I was delighted that I would have the opportunity to learn from them.”

Graciela is one of five exceptional young women who participated in the Yale-Howard Scholars program in the summer of 2003. During the six-week session, the Scholars formed a close working relationship with a mentor at ysn. Each student identified a research question and pursued that interest through mentored research, seminars, and shadowing of advanced practice nurses. At the end of the session, students presented their research findings to a group of faculty and peers from Yale and Howard universities.

During her time at Yale, Graciela worked with Dr. Margaret Grey and Dr. Diane Berry to compare the health behaviors of Hispanic youth at risk for type 2 diabetes. Graciela's project was a sub-study of Dr. Grey's pilot study “Prevention of Type 2 Diabetes in High Risk Youth.”

“Being from the Latino community, Graciela brought a much-needed perspective to our research that we have not had before,” said Dr. Grey. “The analysis that Graciela performed provides an important window into differences between the African-American and Latino children that we had not anticipated.” Graciela's preliminary analysis of the data suggests that Hispanic children tended towards lower body mass index, higher glucose levels, and higher instances of insulin resistance. “This suggest that clinicians need to pay attention to the risk of type 2 diabetes in Hispanic children at an earlier phase of overweight than we traditionally think of with kids,” explained Dr. Grey. “Since approximately 40 percent of children with type 2 diabetes are Latino, that knowledge is critical.”

As further testament to Graciela's extraordinary commitment to nursing, the National Association of Hispanic Nurses presented her with a scholarship award for the 2003 academic year. She was also chosen as one of 22 students in the nation to attend the National Hispanic Leadership Institute’s “Latinas Learning to Lead” Leadership Seminar.

Another remarkable young woman, Tracy Brewington, worked with Dr. Ruth McCorkle to investigate factors related to causal attribution in cervical cancer. “Approximately 4,400 women die of cervical cancer annually,” said Tracy. “It is the second most common malignancy in women.” Tracy's work is a sub-study of Dr. McCorkle's parent study “Quality of Life Outcomes in Long-Term Survivors of Cervical Cancer,” which was designed to gain an understanding of quality of life among women with cervical cancer who were initially diagnosed between 1975 and 1995. Tracy's research project was designed to determine the relationship of causal attribution to selected factors, including age, race, education, income, and religion. She analyzed the responses of 210 women as part of that project. “The preliminary
findings of the study suggest that education may play a role in how women perceive both the cause of cervical cancer, and the risks associated with its development," she said. “It is the primary role of health care providers and researchers to educate consumers about cervical cancer. A greater effort must be put forth in order to decrease the level of ignorance within our communities about this disease.”

Tracy had been exposed to nursing research prior to coming to Yale. In 2002, she was awarded a Traineeship by the National Institutes of Health (NIH). She participated in the Intramural Research Training Award (IRTA) program during the summer of that year. She worked with an NIH mentor to design a research project, and shadowed Certified Registered Nurse Anesthetist in the operating room at the NIH Clinical Center. “That summer experience prepared me well for Yale, and provided a good foundation for me to continue my work at Howard,” Tracy said. She was selected to present her research at the 2003 National Black Nurses Association annual meeting this summer.

Krystal Perkins also worked at NIH during the summer of 2002. She shadowed a nurse anesthetist and helped in the collection of specimens that were sent off to be researched with the Dowling Apheresis Clinic at NIH. “At first I wasn’t too interested in nursing research,” she confided, “but my experience at NIH and as a Yale-Howard Scholar changed all that.”

At Yale, Krystal worked with professor Marge Funk and YSN Family Nurse Practitioner student, Coleen Kiefer, to investigate gender differences in pre-existing conditions, intraoperative procedures, and postoperative complications in patients undergoing cardiac surgery. “Women with heart disease are often diagnosed and treated on the basis of research findings from predominantly male samples,” said Krystal. “Previous research has shown that women tend to have more pre-existing conditions and post-operative complications than men. Health care professionals need to be aware of the risk of cardiovascular disease in women instead of attributing their problems to noncardiac factors, such as stress.”

Krystal, who currently works in the ICU at Virginia Hospital, plans to continue doing so for two years after graduating from Howard, and then to go onto graduate studies. Krystal also plans to continue to be an outspoken advocate for the nursing profession. When she hears people insinuate that nurses are inferior to doctors, Krystal points out that in underserved communities, advanced practice nurses are key primary care providers, and that nursing research has improved the well-being of these communities. “This country needs more nurse specialists and nurse researchers, and I feel responsible to help recruit them in my day-to-day life,” she said. “The Yale-Howard Scholars program is a great way for nursing students to get exposed to research and to launch their careers as nurse researchers.”
Unlike Tracy and Krystal, Jessica Campbell-Hamilton came to Yale without a background in research. Nursing, however, is in her blood, according to Jessica. “My grandmother is a retired nurse, and since I was young, I have been fascinated by the profession,” she explained. Jessica worked with Dr. Karel Koenig this summer to examine, via the parents’ perspective, the experience of living with asthma during the initial onset of symptoms in low-income African-American children (see related story, p. 22). “Nursing research is not as intimidating, and much more rewarding, than I had imagined,” she said. “As nurses we have the capacity to change people’s lives. As nurse researchers, we are able to improve the quality of life for entire communities. There is a great feeling of pride that comes from knowing that you are helping to have an impact on the health of communities.” After graduating from Howard in 2004, Jessica plans to work for a year, and then enroll in a master’s in nursing program. Eventually she hopes to study for a doctoral degree in nursing and to “join the ranks of nurses who are making a difference in the world through research.”

The last of the five Scholars, Chinenye Udemezue, was born and raised in Enugu, in the Eastern part of Nigeria. Since she was a little girl, Chinenye has wanted to help people to stay healthy and better manage their illnesses. “I have always wanted to work in health care,” said Chinenye. “But because nursing is not looked upon as a knowledge-driven profession in my country, I originally studied biology to become a doctor.” Six years ago, Chinenye came to the United States to continue her education. Her sister-in-law, a neonatal nurse practitioner at Johns Hopkins, once invited her to spend a few hours at the hospital to watch her work. Chinenye recalled: “I saw that she was doing important work, that she was treated with respect by her co-workers, and I was very impressed. This was a different role from what I perceived the role of nurses to be in my country. This is when I made the decision that nursing was the path for me.” Chinenye’s parents still reside in Nigeria. “I miss them so much,” she said, “but I know that they are very proud of what I am doing at Howard and at Yale.”

For Chinenye, who worked with YSN’s Dr. Ivy Alexander and Mary Ellen Rousseau to investigate relationships between exercise/nutrition and menopausal symptoms among black women (see related story, p. 21), the needs of families in her home country are never far from her mind. “There is a great shortage of quality health care in Nigeria, especially for poor people, and there is a great need for more advanced practice nurses to provide community health services to the underserved,” she said. To help meet that need, Chinenye plans to pursue her graduate degree in nursing in the United States, and then return to Nigeria to establish a community health clinic in Enugu.

“I have made so many good friends at Howard and at Yale, and I will miss them when I go back to Nigeria,” said Chinenye. “But I feel I must go back to improve the health of people in my country.”

“It is always sad when the Yale-Howard Scholars leave after we have gotten to know them so well during their time at Yale,” said Dr. Grey. “But we know that they will come back to us, either as graduate students or as colleagues, and so it is with great pride that we watch them go. They become part of the YSN family.”
In the introduction to *The Change: Women, Ageing and the Menopause*, Australian writer, Germaine Greer, wrote: “The older woman’s love is not love of herself, nor of herself mirrored in a lover’s eyes, nor is it corrupted by need. It is a feeling of tenderness so still and deep and warm that it gilds every grass blade and blesses every fly. It includes the ones who have a claim on it, and a great deal else besides.”

A woman’s transition to menopause is often a private experience, impacted by life’s many stressors women encounter during this stage of their lives: providing guidance and support to their children and grandchildren, caring for elderly parents, staying active in their professional life, meeting their responsibilities in the community, and trying to keep healthy and fit. As the U.S. population ages, the number of women experiencing menopause is increasing. Likewise, the percentage of these women who are minorities is on the rise. Dr. Ivy Alexander, lead investigator on a pilot study titled “Menopause and Midlife Health Risks: Black Women’s Views,” explained that “while data are readily available regarding the menopause experience in white women, little is known about the same event in black women.”

The investigators are collecting data from groups of women in New Haven and Washington D.C. regarding their menopause symptoms, expectations, perceived health risks, and lifestyle practices. Data gathered in this study will contribute to the understanding, development, and future testing of self-management interventions for black women during the transition to menopause and beyond. “Specifically, this data will inform the development of culturally sensitive self-management interventions designed to help black women manage menopause symptoms and potentially influence other health-related concerns,” Dr. Alexander said.

According to Dr. Alexander, the project is significant because menopause has both acute (symptoms experienced during the transition to menopause) and long-term effects (increased risk for osteoporosis and coronary heart disease [CHD]) on a woman’s health. Black women experience significantly higher rates of CHD risk, morbidity, and mortality, partially due to their high rates of diabetes and sedentary lifestyle, and partially due to the existing health disparities for blacks in the U.S. Similarly, mortality rates for black women exceed those for other minority groups. This predisposition increases following menopause. “Implementing lifestyle behavior changes such as weight management through dietary and exercise interventions can reduce CHD disparities in black women by decreasing morbidity and mortality,” she said.

In total, 25 women in New Haven and 19 women in Washington D.C. are participating in the study. According to Dr. Alexander, the women have enjoyed sharing their experience with the group and were relieved to find out that their experience was not unique. Some women have also expressed interest in maintaining contact with other group members after the study ends. “All the women I spoke with said they would be interested in participating in the next step of the work in developing the interventions,” Dr. Alexander said. “Their enthusiasm is very encouraging to us.”

“While data are readily available regarding the menopause experience in white women, little is known about the same event in black women.”
The word ‘Asthma’ means “Laboured Breathing” in Greek, and was first used to describe the illness by Hippocrates. The famous Greek physician understood that true healing requires a thorough understanding of the patient and how that patient manages the disease, as well as the nature of the disease itself. Hippocrates wrote: “It is often more important to know what sort of person has a disease than to know what sort of disease a person has.”

Yale’s Karel Koenig, working with colleagues from Yale and Howard Universities, is trying to understand severe persistent asthma as it occurs in infants and toddlers from low income African-American and Latino families. She is the lead investigator on a study titled “Diversity, Poverty & Management of Severe Asthma,” one of the four pilot studies being conducted within the Yale-Howard Partnership Center for Health Disparities. Dr. Koenig and her colleagues realize that understanding how these families incorporate asthma into their daily lives is essential to helping them manage the disease. They are looking at how various influences shape the earliest family asthma management practices and how they converge in the everyday lives of these families. The findings will inform new approaches to asthma care that improve self-management, diminish disparities in morbidity, and prevent mortality in low income African-American and Latino children with chronic persistent asthma. “The ultimate goal,” said Dr. Koenig “is to develop interventions that target these very high risk families.”

In the United States, children under 4 years old experience the greatest rates of asthma. Moreover, disparities of disease incidence and severity occur due to poverty and ethnic identity. Children under 4 years old who live in poverty are hospitalized for asthma more often than any other age group, and being African American or Latino puts children at an even higher risk for severe disease.

Although many reasons for high morbidity in these children are known, how their families initially cope with, and go on to develop routine practices for managing asthma, is poorly understood. According to Dr. Koenig, parents often recognize and manage symptoms long before professionals identify the disease or provide guidelines for management. Parents have also reported feeling that health care providers do not understand that they have important information to share about living with a child with asthma. “Many providers do not appreciate that family caregivers have vital information to contribute to the process of developing culturally sensitive interventions,” Dr. Koenig said.

Dr. Koenig explains that the Yale-Howard study is innovative in giving attention to how management evolves over time. “It is the first step in a program of research that will examine how understanding of asthma and asthma management practices develop as children grow and their familiarity with the illness increases,” she said.

Hippocrates wrote: “Healing is a matter of time, but it is sometimes also a matter of opportunity.” Dr. Koenig and her colleagues understand this well. “This project provides a unique opportunity to understand how low income, African American and Latino families with young children who have severe asthma cope with the illness and to develop self-management strategies that better meet their needs,” Dr. Koenig said.
The eighteenth-century English poet, James Thompson, wrote: “Health is the vital principle of bliss, and exercise, of health.” It is widely accepted that regular exercise improves health, and many acknowledge that exercise positively impacts psychological as well as physical well-being. Despite its many benefits, however, exercise may be the last thing on the minds of women who are undergoing or have recently undergone adjuvant therapy for breast cancer.

Helping Breast Cancer Survivors Stay Fit and Healthy
Breast cancer survivors represent 22 percent of the 9 million cancer survivors, making them the largest cancer survivor population. While recovery rates for women diagnosed with breast cancer are comparatively high, a new set of challenges arises for survivors after treatment ends. Women who have undergone adjuvant chemotherapy often report physical and psychological symptom distress that persists after treatment. Cancer treatment related fatigue is almost universal, and many women decrease their normal physical activity following diagnosis. In addition, women often experience fear of recurrence and anxiety about the future. Many women also gain weight during treatment, and have concerns about their physical appearance. Research suggests that gains of 5–14 lbs. are common among women treated for breast cancer, and this weight gain persists following therapy. Finally, premature induced menopause, a common side-effect of adjunct chemotherapy in younger women, may be associated with bone loss, increasing a woman’s lifetime risk for osteoporosis.

The Yale School of Nursing is collaborating with local fitness centers to implement an exercise intervention study for breast cancer survivors. Dr. Tish Knobf is the principal investigator for the study titled “A Pilot Exercise Intervention in Breast Cancer Survivors.” Along with Dr. Karl Insogna from the Yale School of Medicine, and Dr. Loretta DiPetro from the Yale School of Epidemiology and Public Health, Dr. Knobf will evaluate the feasibility and effect of a progressive walking, resistive exercise intervention on bone mass, weight, body composition, general health, physical functioning and physical and psychological symptoms in mid-life women following breast cancer treatment. While conducting research for her master’s thesis in 1982, Dr. Knobf observed that at the end of treatment, breast cancer survivors experienced a mixed and complex set of emotions. “While breast cancer patients are receiving adjuvant chemotherapy treatment, they experience a sense of safety in knowing that the treatment is preventing cancer from recurring,” explained Dr. Knobf. “They also form a close bond with their healthcare providers—physicians and nurses—whom they interact with regularly during treatment. Their family and friends provide additional support while treatment is taking place. When treatment ends, survivors are relieved to be done with the stress and physical discomfort of therapy, but experience anxiety and uncertainty due to fear of recurrence.”

Dr. Knobf went on to explain that during treatment patients come to rely on the...
support of their healthcare providers. As visits to health care facilities become less frequent after treatment ends, that support system disintegrates. Family and friends too, reassured that the patient is doing better physically, often put less emphasis on emotional support following treatment. “Suddenly, the patient feels more alone with the experience of their illness that they had while receiving treatment,” Dr. Knobf said.

Participants of the 16-week intervention program are women with breast cancer who have completed therapy within the past 12–24 months. During the initial phase of the intervention, women will begin walking on a treadmill at their own pace three times a week. All women will progress toward a goal of three weekly 45 minute sessions. All exercise will be supervised by a master’s prepared exercise physiologist.

“One of the most significant health concerns these women face after therapy is loss of bone mass due to an early onset of menopause,” said Dr. Knobf. “One of this study’s goals is to determine whether resistive exercise intervention has a positive effect on bone mass, specifically bone re-modeling.” Participants will wear weighted waist/hip belts and upper back packs during exercise. It is hoped that regular exercise with weights might preserve or increase bone mass and thus minimize the risk of osteoporosis.

Dr. Knobf will also be looking at whether these women will continue to exercise after the 16-week intervention ends. Study participants will be interviewed 6 weeks post intervention to determine how successfully exercise has been integrated into their lifestyle. “We are hoping that the intervention program will have a positive impact on these women’s lives emotionally and psychologically, as well as physically,” Dr. Knobf said. “If the social interaction with other participants reduces their anxiety level, makes them more physically fit and makes them feel better about themselves, we think these women will choose to continue to exercise even after the intervention ends.”

The idea for the partnership between YSN and local fitness centers was first conceived by A. Siobhan Thompson, research associate at YSN. In search of a practical option that could promote and sustain enrollment in the study, Siobhan conceptualized a partnership with fitness facilities in the areas where the study participants live. “The idea was to leverage and develop community resources in conducting interventions that can sustain healthy behaviors after project completion.” Sionhan said. “This project provides options in exercise training for women that are easily transferable to routine lifestyle activities.” Siobhan discussed her idea with colleagues at YSN and exercise professionals assigned to the study. She also spoke with exercise professionals at In-Shape, her local gym that has facilities in Branford and North Haven, Connecticut. “In-Shape staff were very eager to provide support for this project,” she said.

In-Shape agreed to match YSN dollar for dollar to subsidize monthly membership costs to the study participants. Rob Acquavella, In-Shape Chief Operations Officer, explained why: “In-Shape has been in business of improving people’s health and physical fitness for many years. Many of us have loved ones whose lives have been impacted by breast cancer. In partnering with YSN we have been presented with an excellent opportunity to improve the quality of life of breast cancer survivors and to reaffirm our commitment to the health of people in our community.”

The relationship model with In-Shape was used to establish another partnership with Venus, a full-service fitness facility for women in Milford, Connecticut. “The collaboration with Venus has expanded the reach of our study to include breast cancer survivors in Milford and the surrounding area,” said Dr. Knobf. She plans to apply this intervention model to engage more fitness facilities and involve an even larger number of participants. “This type of intervention model may create the motivation and the support system breast cancer survivors need to improve their psychological and physical health,” Dr. Knobf said. “Engaging partners from the local community will also help emphasize to the community at large the positive impact of exercise on their lives.”

From July 26-August 1, 2003, YSN hosted researchers, doctoral students, and advanced practice clinicians who share an interest in family research for a week of intensive study and discussion of conceptual, methodological, policy, and practice issues related to family. A total of 28 scholars and practitioners from North America and Asia participated in this program. The Summer Institute on Family Nursing Research combined didactic sessions, seminar discussions, and individualized consultations and included leaders in family nursing research as well as experts in research design and policy analysis. YSN faculty, as well as faculty from University of California, San Francisco and University of Pennsylvania schools of nursing led the discussions.

The institute provided participants with an opportunity to network with others interested in family research, explore issues and trends in family research, and receive individualized input on their own projects. “One of the most valuable aspects of the institute was the interaction that took place among faculty and participants who shared their insights and experiences related to the design and implementation of family studies,” said Dr. Kathleen Knall who directed the program.

The evaluations handed out at the end of the week were replete with superlatives. Comments included: “Wonderful exchange of ideas from various backgrounds in family research!”

“Wonderful mix of participants; very stimulating group.”

“Kudos; this was a spectacular event!”

The program was co-sponsored by YSN’s Center of Excellence in Chronic Illness Care and the Center for Health Policy and Ethics. “The focus of the institute was in keeping with YSN’s overall emphasis on self and family management of chronic illness and risk for illness,” said Dr. Knall. “It is another reflection of YSN’s leadership role in this critical area of inquiry.”
Imbedded at the end of a corridor in the basement of the Yale School of Nursing, Room 106, or what is commonly referred to as the “Zawalich Lab,” is not the easiest place to find. The lab’s outer appearance gives no indication that some of the most important biochemical research in diabetes occurs within its walls.

The Zawalich team, made up of Dr. Walter Zawalich, his wife Kathy Zawalich, and their lab assistant Greg Tesz, is trying to understand how the beta cell regulates the secretion of insulin. Understanding how the beta cell, the body’s sole supplier of insulin, functions is important for several reasons. In the most common form of diabetes, referred to as type 2 diabetes, it fails or decompensates; in type 1 diabetes it is singled out of the islets of Langerhans for immune-mediated destruction. “The question that has always fascinated us is what makes the beta cell so unique, and why is it singled out for destruction?” explains Dr. Zawalich. He speculates that perhaps the same processes that regulate insulin secretion and cause the beta cell to respond so well also play a role in targeting by the immune system. “With a more comprehensive understanding of the basic physiology of the beta cell we can understand its pathophysiology in type 2 diabetes and why it is destroyed in type 1 diabetes,” he says.

In May 2003, the Zawalich Lab was awarded a grant from the National Institutes of Health. This competion continuation grant, funded for the past 13 years, will be extended for 4 additional years. The proposed studies explore how the over expression or under expression of key proteins in the islets of Langerhans regulate insulin secretion. It is anticipated that these studies will facilitate the design of surrogate beta
cells for genetic engineering studies to replace those lost in type 1 diabetes and establish how these proteins contribute to the changes that occur in type 2 diabetes. Dr. Zawalich explains that, “Understanding the factors that control insulin secretion release becomes important in trying to reverse this situation.”

In the studies proposed, several forms of the enzyme phospholipase C and protein kinase C, will be overexpressed in the beta cell by inserting extra copies of the gene that encodes for the protein. If these proteins control the release of insulin, the prediction is that the beta cell altered in this fashion should release more insulin when stimulated. “These studies are also important if, as has been proposed by others, we want to genetically engineer undifferentiated stem cells to become beta cells that can be transplanted,” says Dr. Zawalich. “We have to know what proteins are essential and have to be expressed in these cells to make them synthesize and secrete insulin.” Another aim of the grant is to try and knock out selected beta cell proteins or receptors and determine how the secretion of insulin has been changed. The long term goal of all the studies is a more complete understanding of the biochemical pathways that control insulin secretion, how they maintain euglycemia and their involvement in the pathogenesis of diabetes.

One may not readily think of cutting edge biochemical research taking place at a nursing school, but to Dr. Zawalich the affiliation with YSN makes perfect sense. He explains that the work of his team often informs and is in turn informed by the scholarship of other YSN faculty. “The work of Professors Margaret Grey, Gail D’Eramo Melkus and other faculty has helped build a strong foundation of diabetes research at YSN,” he says. “Our efforts are often complementary, and our work in the lab informs the curriculum for masters and doctoral level students.” Dr. Zawalich is also quick to credit his colleagues at the Yale Medical Center for their ongoing support. “We’ve been extremely fortunate to have a large number of collaborators outside YSN who have contributed to our work,”
he says. In particular, he credits Drs. William Philbrick and John Sterpka at the Yale Medical School for helping to guide the Zawalich Lab into the area of regulating protein expression by manipulating genes.

“Science evolves incredibly fast, especially in the area of biochemical research,” says Dr. Zawalich. “In order to stay on the cutting edge we must make full use of our colleagues’ considerable expertise. Partnering with fellow researchers throughout Yale has been an extremely rewarding experience for us.”

Collaboration with colleagues throughout Yale has also enhanced the education experience for Dr. Zawalich’s students. A number of his colleagues have been invited to discuss their work as part of his Biomedical Sciences class. Guest speakers have included some of Yale’s most prominent researchers, such as Dennis Cooper, Barbara Gulanski and Fred Gorelick, who have engaged YSN students on topics ranging from oncology, endocrinology, osteoporosis and cystic fibrosis. According to Dr. Zawalich, colleagues who have had a chance to interact with YSN students have told him that they are among the most enthusiastic learners and critical thinkers. “Our students’ keen interest in a variety of subjects creates an environment that encourages a free exchange of ideas and makes the lecture experience a rewarding one for the guest speakers,” he says.

A significant number of Dr. Zawalich’s colleagues from the Yale Medical Center have been repeat guests in his class. The class discussions are often the beginning to lasting relationships between YSN students and top experts in medical science at Yale. According to Dr Zawalich, these relationships provide an important resource for YSN students during their years at Yale and in their later professional development. “Ultimately, these interactions extend the reach of the nursing school,” he says. “They make the entire realm of health care science at Yale part of the YSN experience.”

Considering Dr. Zawalich’s accomplishments, it is hard to believe that he almost failed out of his biochemistry class as a student at the University of Massachusetts. “The great irony is that all the pathways I was reluctant to learn as a student I have since made my life’s work,” he says. “I credit my faculty mentors who peaked my curiosity, gave me room to grow and allowed me to make mistakes with giving me the tools necessary to pursue this work.” Dr. Zawalich often shares this story with his students during their first year at YSN. “I hope my experience demonstrates to them that it is okay to struggle with the subject matter and to make mistakes as long as one is willing to remain curious, enthusiastic, and dedicated to their work.”

According to Dr. Zawalich, students who come to YSN with little or no background in biochemistry undergo a remarkable transformation in just a few short months. “This speaks to the high caliber of students who choose to study nursing at Yale,” he says.

When asked what it is like to ride what Walter Zawalich calls “the hills and valleys of science” together with their spouse, the Zawalichs admit that the journey has been marked by “detours, important crossroads and interesting side trips.”

“Walter is so passionate about his work that it often goes home with him,” confides Kathy. She jokes that “Because we go home together, invariably I end up taking my work home with me as well.” All jokes aside, however, Walter and Kathy are quick to credit each other for their continued success. After 35 years of marriage and 15 years of working together, the Zawalichs still make a terrific team! 🥰
Extending the frontiers of nursing science
Cohen, Sally S.

Coviello, Jessica Shank
CROWLEY, ANGELA A.

Dixon, Jane


Fennie, Kristopher

Funk, Marc


GUSTAFSON, ELAINE M.


HACKLEY, BARB


HAMRIN, VANYA


JACKSON-ALLEN, PATRICIA

JEFFERSON, VANESSA


KNALL, GEORGE J.


KNAFL, KATHLEEN

Ayres, L., Kavanagh, K., & Knaf, K. (In press). Within and across case approaches to qualitative data analysis. Qualitative Health Research.


KNOBF, M. TISH


KOENIG, KAREL

KRAUSS, JUDITH


MCCORKLE, RUTH


MEADOWS-OLIVER, MIKKI


MELKUS, GAIL D’ERAMO


On April 1st, Pat Jackson joined YSN faculty as a lecturer working with the pediatric specialty. The School only needed to wait until Saturday, April 5th for her to “bring home the gold” for YSN at the National Organization of Nurse Practitioner Faculties Meeting.

On that date, Pat Jackson-Allen was awarded the 2003 Outstanding Nurse Practitioner Educator Award from the National Organization of Nurse Practitioner Faculties (NONPF). The award recognizes demonstrated contribution to the advancement of nurse practitioner education in innovative curriculum development; outstanding teaching ability; development of creative teaching strategies; faculty practice models; and educational policy development. “YSN and the Yale community are extremely fortunate to have gained such a master teacher and excellent clinician,” said Dean Catherine L. Gilliss. “We are very proud to have Pat join the YSN family.”


MINARIK, PAMELA


MORIARTY-DALEY, ALISON


OLEAN, DOUGLAS P.


Working Group for the Study of Ethics in International Nursing Research (D. Olsen, Chair) (2003). Ethical considerations in international nursing research: A report from the International Centre for Nursing Ethics. Nursing Ethics, 10, 122-137.

Olsen, D. (2002). Editorial [about the need for attention to clinical relationships]. Nursing Ethics, 9, 120-121.

PASACRETA, JEANNIE

Pasacreta, J.V. (In press). Determinants of depression among women at increased risk for breast and ovarian cancer. Psycho-Oncology: Journal of the Psychological, Social and Behavioral Dimensions Cancer.


RYAN-KRAUSE, PAT


SADLER, LOIS


SANTACROCE, SHEILA J.


SCAHILL, LAWRENCE


**SCHILLING, LINNE**


**SWARTZ, MARTHA K.**


**TALLEY, SANDRA**


**VEDAM, SARASWATHI**


**WILLIAMS, ANN B.**


**FUNDED RESEARCH**

(as of 7/1/03, includes ongoing and studies completed during period 7/1/02–6/30/03)

Alexander, I. (Principal Investigator), Rousseau, M.E., Ruff, C., White, K. Menopause and Midlife Health Risks: Black Women’s Views (Pilot Study). Funded by Yale-Howard Nursing Partnership Center on Reducing Health Disparities, 10/1/02–9/30/03, $20,000

Bouchard, M.E. (Principal Investigator), Evening Primrose Oil as a Cervical Ripening Agent. Funded by Yale University School of Nursing (Intramural grant), 2000–2003, $3,000

Bova, C. (Principal Investigator), Fennin, K., Dieckhaus, K., Williams, A. Development of an Instrument to Measure Patients’ Trust of Health Care Providers. Funded by The Program for the Study of Health Care Relationships/ The Donaghue Foundation, 10/15/01–10/14/02, $41,142

Chyun, D. (Principal Investigator), McCorkle, R., Mellus, G. Psychosocial and Behavioral Outcomes of Screening for Silent Cardiovascular Disease in Type 2 Diabetes. Funded by Yale University School of Nursing (Intramural grant), 2000–2003, $4,500

Cohen, S. (Principal Investigator), Krauss, J. Program for the Study of Health Care Relationships. Funded by The Donaghue Foundation, 7/1/00–12/31/03, $2,926,998

Dieckhaus, K. (Principal Investigator), Bova, C., Fennin, K., Williams, A. Adherence Enhancement Using an Internet-Based Reporting System and Rapid Provider Feedback. Funded by The Program for the Study of Health Care Relationships/ The Donaghue Foundation, 10/15/01–10/14/02, $2,242 (subcontract with University of Connecticut)

Dixon, J. (Principal Investigator), Wargo, J. Measuring People’s Engagement in Environmental Health. Funded by NIH/NIEHS (R01ES11586), 9/30/02–9/29/04, $163,500


Gallo, A. (Principal Investigator), Knaff, K. Parents’ Interpretation and Use of Genetic Information. Funded by NIH/NHGRI, 8/17/01–7/31/03, $195,067 (subcontract with University of Illinois)

Gilliss, C. (Project Director). Renfield/ YSN Clinical Research Initiatives. Funded by The Renfield Foundation, 3/1/02–2/28/06, $1,000,000

Linda Spoonster Schwartz, a research scientist at YSN working on the “Vietnam Nurses Health Study,” has been appointed the next commissioner of the Connecticut Department of Veterans’ Affairs. Schwartz is the first woman and the first nurse in Connecticut’s 139 years of service to veterans to be named as head of this program. She is also the second woman in U.S. history to direct a state department of veterans’ affairs. “I am honored to have this opportunity to serve the state of Connecticut,” said Schwartz. “I think my 37 years of nursing and my experiences as a disabled veteran and as a veterans’ advocate are strengths that will enable me to address the needs of Connecticut’s 300,000 veterans.” Schwartz began her new duties as commissioner in May, 2003 and will continue her research at YSN.

Gillis, C. (Principal Investigator). Yale Program for the Advancement of Wound Care. Funded by Bristol Myers-Squibb Foundation/ConvaTec, 4/1/02-9/30/04, $1,000,000

Gillis, C. (Program Director). Lyder, C. The Elder Prime Program. Funded by Tower One Foundation, 7/1/99-8/31/03, $100,000

Grey, M. (Principal Investigator). apnreti Enhancements and Pilot Work. Funded by NIH/NINR (1R21NR03493), 9/30/02-9/29/04, $70,000

Grey, M. (Principal Investigator). Brownell, K., Caprio, S., Gilliss, C., Irwin, M., Knaff, K., Melkus, G. Preventing Type 2 Diabetes in At-Risk Youth. Funded by NIH/NINR (1R01NR040048), 9/1/01-5/31/07, $2,554,827

Grey, M. (Principal Investigator), Caprio, S., Gilliss, C., Knaff, K., Melkus, G. Preventing Type 2 Diabetes in High Risk Teens. Funded by NIH/NINR (R21NR039428), 9/30/00-8/31/03, $373,342

Grey, M. (Principal Investigator), Chyun, D., Funk, M., Melkus, G., Sadler, L., Scabhili, L., Williams, A. Nursing Intervention for Youth with Chronic Illness—Health Disparities Supplement. Funded by NIH/NINR (AI0104009-05X), 5/1/01-2/28/03, $62,000

Grey, M. (Principal Investigator), Dixon, J., Olsen, D. apnreti: NAMCS Data and Privacy/Confidentiality Issues. Funded by NIH/NINR (AI0111906), 9/30/01-9/29/03, $75,000

Grey, M. (Principal Investigator), Funk, M., McCorkle, R., Williams, A. Self-Management Interventions for Populations at Risk. Funded by NIH/NINR (R21NR087806), 9/15/01–8/31/04, $724,389

Grey, M. (Principal Investigator), Gilliss, C., Knaff, K., Monsouf, T. Nursing Intervention for Youth with Chronic Illness. Funded by NIH/NINR (R21NR084009), 3/1/00-5/31/04, $2,053,376

Grey, M. (Principal Investigator), Tamborlane, W. The Effect of Continuous Glucose Monitoring System on the Incidence of Hypoglycemia and Metabolic Control in Children and Adolescents with Diabetes. Funded by Juvenile Diabetes Foundation, 5/1/00-4/30/03, $1,440,807

Grey, M. (Principal Investigator), Gilliss, C., Tamborlane, W. Coping Skills Training for Children with Type 1 Diabetes and Parents. Funded by NIH/NINR (AI0104004), 9/15/03–5/31/07, $2,498,605

Gillis, C. (Principal Investigator), McCorokle, R. Meditation and Massage at the End of Life. Funded by NIH/NINR (R21NR010669), 9/30/01-8/31/03, $344,644 (subcontract with Griffin Health Services)

Knaff, K. (Principal Investigator). Computer Assisted Family Management of Type 1 Diabetes in Childhood (Pilot Study). Funded by The Exploratory Center on Self Management Interventions for Populations at Risk, 10/1-3/03/03, $20,000

Knaff, K. (Principal Investigator), Dietrich, J., Dixon, J., Gallo, A., Grey, M. Assessing Family Management of Childhood Chronic Illness. Funded by NIH/NINR (R21NR010669), 9/30/01-8/31/03, $426,644

Knobf, T. (Principal Investigator). Professsorship of Oncology Nursing. Funded by the American Cancer Society, 7/1/02-6/30/04, $70,000


Koenig, K. (Principal Investigator). Jordan, J. Diversity, Poverty, and Management of Severe Asthma (Pilot Study). Funded by Yale-Howard Nursing Partnership Center on Reducing Health Disparities, 10/1-2/30/03, $20,000

Mauldion, M. (Principal Investigator), Cagannello, M., Melkus, G. Tomando El Control. Funded by Yale University School of Nursing (Intramural grant), 2003-2004, $5,000

McCorkle, R. (Principal Investigator). Advanced Practice Registered Nurse/ Psychiatric Consultation Liaison Nurse Intervention. Funded by Yale University School of Nursing (Intramural grant), 2002-2003, $5,000

McCorkle, R. (Principal Investigator), Knafl, K. Adaptation and Quality of Life Among Long-Term Survivors of Cervical Cancer. Funded by the NIH/NCC/Community Department of Public Health, 10/31/00-12/31/02, $292,903

McCorokle, R. (Principal Investigator), Knafl, K., Pasacreta, J., Schwartz, P., White, W. Nursing’s Impact on Physical Outcomes in Ovarian Cancer. Funded by NIH/NINR (R01NR07778), 8/1/03-5/31/06, $1,838,906

Melkus, G. (Principal Investigator), Chyun, D., Grey, M. Self-Care Interventions for Black Women with Type 2 DM. Funded by NIH/NINR (R01NR010543), 7/1-3/31/06, $510,500

Milone-Nuzzo, P. (Program Director). Creating Careers in Geriatric Advanced Practice Nursing. Funded by American Association of Colleges of Nursing, 7/1/02-6/30/05, $60,000

Milone-Nuzzo, P. (Principal Investigator). Focus Groups to Determine Perceptions About Physical Activity in Three Culturally Homogeneous Groups. Funded by Yale University School of Nursing (Intramural grant), 2002-2003, $4,070

Pasacreta, J. (Principal Investigator). Psychosocial Sequelae to Predisposition Genetic Testing. Funded by NIH/NIC (5R01CA76959), 9/15/03-8/31/05, $245,880

Pasacreta, J. (Principal Investigator). The Development of Nursing Interventions for Individuals with Chronic Medical Illness and Major Depression. Funded by Yale University School of Nursing (Intramural grant), 2001-2003, $5,000

Sadler, L. (Principal Investigator), Grey, M., Swartz, M. Transition to Motherhood in Teen Mothers in High School. Funded by NCI/NIH (1R01HD093170), 8/1/00-7/31/03, $693,500

Sadler, L. (Principal Investigator), Moriarity Daley, A., Reynolds, H. Intensive Care for Teens with Negative Pregnancy Tests. Funded by The Donaghue Foundation, 1/1/01-12/31/03, $179,073

Santacroce, S. (Principal Investigator). Reducing Symptoms of Posttraumatic Stress in Parents of Children with Cancer (Pilot Study). Funded by the Exploratory Center on Self Management Interventions for Populations at Risk, 10/1-2/29/03, $20,000

Seabill, L. (Principal Investigator), Anderson, G., Hadden, B., Johnson, C., Martin, A. Rupp-fpi Program at Yale University. Funded by NIH/NIMH (U01MH66764), 8/21/02-7/31/07, $2,640,005


Schilling, L. (Principal Investigator), Grey, M., Knaff, K. The Contribution of Health Care Professionals to Parent and Child Self-Management of Type 1 Diabetes. Funded by the Program for Health Care Relationships/ The Donaghue Foundation, 10/1/01–10/14/02, $27,459.

Schwartz, L. (Principal Investigator). Ecological and Health Consequences of the Vietnam War. Funded by NIH/NIH (1R43ES11681), 9/14/01–9/30/03, $40,000.

Schwartz, L. (Principal Investigator). Health and Ecological Consequences of the Vietnam War. Funded by Vietnam Veterans Assistance Fund, 8/1/02–9/30/03, $6,000.

Schwartz, L. (Principal Investigator), McCorkle, R., Ross, C. The Vietnam Nurse Health Study. Funded by TriService Nursing Research Program, 7/20/00–7/29/04, $446,688.


Talley, S. (Principal Investigator). Understanding Changes in Primary Care Practices with Seriously and Persistently Mentally Ill Clients. Funded by Yale University School of Nursing (Intramural grant), 2001–present, $3,000.

Williams, A. (Principal Investigator). Nursing Intervention to Improve Antiviral Adherence. Funded by NIH/NIN (RO1NR04744-1), 9/30/00–8/31/02, $1,544,652.


Funded Doctoral and Postdoctoral Research


Lacey, K. Diabetes and Cardiac Risk Factor Management After MI. Funded by NIH/NIN (R31NS07774), 11/15/98–11/14/02, $112,572.


Newlin, K. Spirituality and Health Factors in Women with Diabetes. Funded by NIH/NIN (R31NS08900), 9/1/02–8/31/03, $196,412.

Potter, P. Breast Biopsy and Distress: Testing a Reiki Intervention. Funded by American Cancer Society, 8/1/02–7/31/04, $30,000.

Sullivan-Bolyai, S. HOMEWARD: A Support Intervention for Mothers. Funded by Friends of the National Institute of Nursing Research (NNIN), 10/1/01–9/30/02, $20,000.

Sullivan-Bolyai, S. The Parent Expert: A Post-Diagnosis Intervention. Funded by NIH/NIN (R31NS08593), 11/14/00–8/15/03, $77,604.

Whitemore, R. A Nurse-Coaching Intervention to Facilitate Lifestyle Change. Funded by American Association of Diabetes Educators, 12/1/01–11/30/02, $40,000.

Whitemore, R. An Intervention for Lifestyle Change in Type 2 Diabetes. Funded by NIH/NIN (R31NR087823), 9/1/01–8/31/03, $3,015,488.

Funded Training

Ament, L. (Program Director), Lyder, C., Milone-Nuzzo, M. Nurse-Midwifery Graduate Clinical Education. Funded by HRSA/Division of Nursing, 7/1/01–6/30/04, $803,469.


Williams, A. (Program Director). Ryan White Title I. Funded by City of New Haven, 7/1/02–5/31/03, $30,000.

Williams, A. (Program Director). Targeted Provider Education Demonstration Project. Funded by New England AIDS Education and Training Center/University of Massachusetts, 9/30/00–9/29/02, $193,000.
Scarier Than SARS

By Margaret Grey and Lisa Faith Stern Published in The Hartford Courant on May 26, 2003

SARS is scary. Even its name, sudden acute respiratory syndrome, with its implied exclamation points (sudden! acute!) and snappy acronym, conjures visions of feverish patients, like characters in an Alfred Hitchcock film, suddenly clutching their chests and gasping “SARS!” as they fall to the pavement.

SARS has great gadgets, too. Thermal-imaging technology can scan airport travelers for even slight temperature elevations. And so a sense of impending disaster characterizes media reports on the disease. We’re told a single “super-spreader,” a Typhoid Mary of the SARS virus, could cause thousands of new infections. A magazine columnist warns that any of the tens of thousands of travelers and immigrants who enter these shores each day could bring the virus along unless more strenuous screening tactics are adopted.

Is such reaction warranted? On the infectious disease front, each of us stands a far greater chance of falling prey to AIDS, hepatitis, or tuberculosis than to SARS. The flu claims an average 36,000 American lives each year, generally from among the elderly, the very young or those compromised by other health conditions. In contrast, no Americans have died from SARS to date. Worldwide, there have been 552 deaths to date and 3,915 recoveries. We are a health-conscious nation eager to take any steps to protect our wellness. With the awakening of the SARS anxiety has arrived what health care professionals call a “teachable moment.” We all know the symptoms of SARS—a fever of 100.4 or greater, headache, malaise and, after a few days, mild respiratory distress. Yet it is difficult to persuade most Americans to take the few minutes necessary to get a (highly effective, painless and inexpensive) flu shot each fall. Perhaps if the news media created more teachable moments around influenza each fall, thousands of lives and treatment dollars could be saved. Beyond infectious disease, chronic diseases take an even greater toll in lives and health care dollars each year. The drama and mystery of infectious diseases attract journalistic coverage; the sudden and acute trump the slow and degenerative. However, the most insidious threats to American health come from chronic conditions, many of which can be prevented, slowed or reversed with education and early intervention. Diabetes, heart disease, cancer and Alzheimer’s disease impact millions of families and cause immeasurable suffering and death. Indeed, nearly all of those who suffer from these diseases will die from them, and before they do, they will rack up enormous health care costs. Diabetes alone costs this country more than $2 billion in direct and indirect costs. And these costs will rise as more and more young people develop these diseases previously reserved for older people. Mental illness and substance abuse also plague our society, but are too taboo to occupy the banner headlines occupied by SARS. Again, our society refuses to deal with preventing and treating these causes of morbidity and mortality. Chronic diseases don’t roll off the tongue quite so well or create such vivid mental pictures as an emerging virus like SARS does. As a result, the news media do not grant them daily coverage. Public awareness, activism and research dollars are directed at potential threats while real dangers are underestimated, underfunded and poorly understood. When an insulin syringe or a Heparin-coated stent graces the covers of the newsmagazines—and the public knows what they are—then the news media can be congratulated for responsible and realistic coverage of health care. And only then do we have the chance of convincing ourselves and insurers that paying for prevention and treatment of such conditions is the right thing to do.

According to the World Health Organization: “Cardiovascular disease, cancer, diabetes, respiratory disease, obesity and other noncommunicable conditions account for 59 per cent of the 56.5 million global deaths annually, (almost half, or 45.9 per cent, of the global burden of disease). The majority of chronic diseases now occur in developing countries. Unhealthy diet, physical inactivity and tobacco use are among the leading causes.”

AIDS Since the start of the global epidemic, close to 30 million people are thought to have been infected with HIV—26.8 million adults and 2.6 million children. Of these, an estimated 5 million adults and 1.4 million children have died.

ALCOHOL ABUSE Alcohol is the leading health risk in some developing countries, and ranks third in industrialized nations. 1.8 million deaths (or 4% of the global disease burden) are alcohol related. Worldwide, 5% of all deaths of young people between the ages of 15 and 29 were attributable to alcohol abuse.

CANCER Over 20 million people are living with cancer today, with 10 million new cases of cancer worldwide and six million cancer deaths each year.

CARDIOVASCULAR DISEASE An estimated 16.6 million—or one-third of total global deaths—result from the various forms of cardiovascular disease (CVD). Approximately 80% of CVD deaths in 2001 took place in low to low-middle income countries. By 2010 CVD will be the leading cause of death in developing countries.

DIABETES An estimated 135 million people world-wide had diabetes in 1995. The latest WHO estimate (for the number of people with diabetes, worldwide, in 2000) is 177 million. This will increase to at least 300 million by 2025. The cost of treating diabetes in the USA in 1997 was US$ 44 billion.

TOBACCO USE Tobacco use kills 4.9 million people each year, most of whom live in poorer countries. The number of tobacco users worldwide is expected to reach 1.7 billion—up from the current 1.3 billion. Increases will be particularly evident among women, mainly in the developing world.

TUBERCULOSIS Tuberculosis (TB) kills approximately 2 million people each year. It is estimated that between 2002 and 2020, approximately 100 million people will be newly infected, over 150 million people will get sick, and 36 million will die of TB. An estimated one third of people living with HIV/AIDS worldwide are co-infected with TB.
CONTACTS

OFFICE OF THE DEAN

Catherine L. Gilliss, DNSC, RN, FAAN
Dean and Professor
203.785.2393
gilliss@yale.edu

Lisa Hottin
Director
Office of Development and Alumni Affairs
203.785.7920
lisa.hottin@yale.edu

Ilya Sverdlov
Director
Office of Public Affairs
203.737.1376
ilya.sverdlov@yale.edu

Pamela Minarik, MS, RN, CS, FAAN
Director
Office of International Affairs
203.737.2368
pamela.minarik@yale.edu

SPECIALTY DIRECTORS

Margaret Beal, RN, MSN, PhD, CNM
Director, Graduate Entry Prespecialty in Nursing
203.737.2337
margaret.beal@yale.edu

Deborah A. Chyun, RN, MSN, PhD
Director, Adult Advanced Practice Nursing Specialty
203.737.2354
deborah.chyun@yale.edu

Carolyn Auerhahn, EDD, RN, CS, NP-C
Director, Adult, Family, Gerontological, and Women’s Health Primary Care Specialty
203.737.2421
carolyn.auerhahn@yale.edu

Mary Ellen Rousseau, RN, MS, CNM
Director, Nurse-Midwifery Specialty
203.737.2372
maryellen.rousseau@yale.edu

Martha K. Swartz, RN, MS
Director, Pediatric Nurse Practitioner Specialty
203.737.2549
martha.swartz@yale.edu

Sandra Talley, RN, MN, PhD
Director, Psychiatric–Mental Health Nursing Specialty
203.737.5609
sandra.talley@yale.edu

OFFICE OF ACADEMIC AFFAIRS

Kathleen A. Knaf, PhD
Associate Dean for Academic Affairs
Chair, MSN Program
203.785.2399
kathleen.knafl@yale.edu

Ruth McCorkle, PhD, RN, FAAN
Chair, DNSc Program
203.737.5501
ruth.mccorkle@yale.edu

Frank Grosso
Assistant Dean for Student Affairs
203.737.5401
frank.grosso@yale.edu

Carolyn Falls
Director, Financial Aid
203.737.5402
carolyn.falls@yale.edu

Sharon Sanderson
Director, Recruitment and Placement
203.737.2258
sharon.sanderson@yale.edu

OFFICE OF RESEARCH AFFAIRS

Margaret Grey, DrPh, CPNP, CDE, FAAN
Associate Dean for Research Affairs
203.737.2420
margaret.grey@yale.edu

OFFICE OF CLINICAL AFFAIRS

Betty Nelson, RN, PhD
Associate Dean for Clinical Affairs
203.737.5700
betty.nelson@yale.edu

EXPLORATORY RESEARCH CENTER ON SELF MANAGEMENT

Margaret Grey, DrPh, CPNP, CDE, FAAN
Director
203.737.2420
margaret.grey@yale.edu

EXPLORATORY RESEARCH CENTER ON DISPARITIES

Catherine L. Gilliss, DNSC, RN, FAAN
Director
203.785.2393
gilliss@yale.edu

CENTER FOR EXCELLENCE IN CHRONIC ILLNESS CARE

Ruth McCorkle, RN, PhD, FAAN
Director
203.737.5501
ruth.mccorkle@yale.edu

CENTER FOR HEALTH POLICY AND ETHICS

Sally S. Cohen, PhD, RN, FAAN
Director
203.737.5455
sally.cohen@yale.edu

RESEARCH CENTERS AND CENTERS OF EXCELLENCE

Yale School of Nursing
100 Church Street South
Post Office Box 9740
New Haven, Connecticut 06520-0740
www.nursing.yale.edu

Margaret Grey, DrPh, CPNP, CDE, FAAN
Director
203.737.2420
margaret.grey@yale.edu

Catherine L. Gilliss, DNSC, RN, FAAN
Director
203.785.2393
catherine.gilliss@yale.edu