NPs: TRANSFORMING PRIMARY CARE IN NYC

PLUS: NURSE ENTREPRENEURS | COLUMBIA NURSING’S OFFICE OF GLOBAL INITIATIVES
I made the decision to attend nursing school in 1948. It was among the best choices I ever made.

Recently, I decided to demonstrate my gratitude and give back to the school that gave me so much.

**Thank you, Columbia Nursing.**

— Lucy Jobson Wierum ‘51

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For more information about leaving Columbia Nursing in your estate plans, contact Janice Rafferty Grady at jar2272@columbia.edu or 212.305.1088.
transformation. That’s the word that comes to mind when I think about health and healthcare in America today.

People are living longer, especially the elderly and chronically ill, often with complex health needs. The cost of healthcare is rising. Meanwhile, the healthcare system is beginning to change how it delivers and pays for care in order to meet the many demands it faces. The fee-for-service system is evolving into one that is value based, paying providers to keep people healthy. This makes good sense. After all, preventing illness is the best way to control health spending. And the best way to prevent illness is with care that is integrated, comprehensive, patient-centered and promotes wellness—primary care.

A growing body of evidence indicates that multidisciplinary teams of providers—rather than solo practitioners—are the most efficient and cost-effective deliverers of primary care, as well as care for the acute, chronically and terminally ill. And who are integral members of these teams? Nurse practitioners (NPs).

This issue of Columbia Nursing shows how transformations in our healthcare system are widening the doors for NPs. The fastest growing group of professionals in the primary care workforce, NPs are helping to meet the urgent need for more primary care services in the United States. As our first story, “Transforming Primary Care: Columbia Nursing’s NP-Run Faculty Practice Provides Access to New York City Residents,” illustrates, Columbia University School of Nursing is helping to meet these needs throughout Manhattan with its primary care faculty practice, the Nurse Practitioner Group.

Another transformation that Columbia Nursing is part of—and that I’m passionate about—is the invigoration of the RN’s role in primary care. Research shows that adding an RN to a primary care practice lowers costs because it relieves NPs of time-intensive tasks and planning care transitions, all of which RNs can do. More important, RNs can serve as a vital link between underserved individuals and the care they lack. This is why we are hiring an RN care coordinator at our new faculty practice in Washington Heights: to help patients obtain services and to provide follow-ups, health information and education; to make sure patients undergo necessary health tests and screenings; and to identify any gaps in their care.

As nurses’ opportunities broaden within the healthcare system, some are investing their expertise in ventures of their own. Our story “Turning an Idea into an Enterprise: Six Nurse Entrepreneur Alumni Whose Innovations are Meeting Today’s Healthcare Challenges,” introduces six alumni who have established businesses to improve healthcare access and quality. Whether marketing a device that allows nurses to remotely monitor hospital patients and their visitors, creating online platforms that link nurses with potential employers, or opening their own clinic, these entrepreneurs have all used the education and leadership skills they acquired at Columbia Nursing to create innovations that are improving the health of individuals and communities.

One profound influence on health and healthcare has been globalization. Our world is no longer a collection of disparate countries, particularly when it comes to health. Civil wars and refugee crises have displaced millions of citizens, many of whom need treatment for such health issues as illness, injury, malnutrition and post-traumatic stress disorder. Responding to the spread of diseases such as Ebola and Zika, and encouraging our students to approach such epidemics in culturally competent and sensitive ways, are the kind of challenges that our Office of Global Initiatives addresses.

“Global Health: Changing Lives that Change the World: Columbia Nursing’s Office of Global Initiatives Works to Improve Global Health,” is a story about the office which partners Columbia Nursing scholars with their peers around the world and supports their collaborative efforts to research and understand health problems as global issues.

No matter how many miles of land and ocean separate human beings, health issues connect us. We all want to feel well and avoid illness. As economic forces make healthcare less accessible, we need providers who can guide us in taking better care of ourselves. Increasingly, these providers are nurses and nurse practitioners. In primary care settings, on healthcare teams, in independent businesses and the halls of academia, we are helping people to live healthier lives. And that is transformative. I hope you enjoy the issue.

BOBBIE BERKOWITZ, PHD, RN, NEA-BC, FAAN
Dean, Columbia University School of Nursing
Mary O’Neil Mundinger Professor of Nursing
Senior Vice President, Columbia University Medical Center
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Nurse entrepreneurs draw on a long tradition of problem solving and innovation in nursing. Seven alumni tell their stories of how they started their own businesses including an app aimed at improving care for hospital patients and a virtual travel medicine portal.

20 Changing Lives that Change the World
By Rob Brown
Health issues and disparities impacting millions of people are top of mind thanks to our increasingly interconnected world. The Office of Global Initiatives is addressing these inequities through service, research, practice, and leadership.
Although most hospital intensive care units (ICUs) in the United States have adopted a set of federally mandated, evidence-based interventions to reduce central line–associated bloodstream infections (CLABSIs), few perform the entire “bundle” of interventions, which the Institute for Health Improvement (IHI) says is the most effective way to reduce infections, according to research from Columbia Nursing.

The interdisciplinary research was led by Patricia Stone, PhD, Centennial Professor of Health Policy and director of the Center for Health Policy. The “Prevention of Nosocomial Infections and Cost-Effectiveness Refined” study team surveyed nearly 1,000 adult, mostly medical-surgical ICUs in 632 hospitals nationwide to assess bundle compliance, as well as the relationship between compliance and CLABSI rates. They paid particular attention to how many of the five bundle elements—hand-washing before central line (CL) insertion, using maximal barrier precautions, using chlorhexidine to disinfect skin, choosing the best insertion site and reviewing line necessity daily—ICUs reported having a policy for and their compliance with each of those policies. Besides causing illness and death, CLABSIs can incur high hospital costs. The CL insertion bundle is considered among the most effective interventions.

Most ICUs had bundle policies but only 69 percent reported excellent—at least 95 percent—compliance with at least one element. More rare was excellent compliance with all elements, which fewer than 20 percent of ICUs achieved. “This is an issue because lower CLABSI rates were seen only in ICUs with high CL bundle compliance,” the authors wrote. Indeed, compliance with all five elements was most strongly associated with lower CLABSI rates, resulting in a 33 percent reduction in CLABSIs. “This finding supports the IHI bundle concept, which states that all elements of the bundle should be implemented together.”

The researchers observed a decrease in infections when ICUs performed any of the elements well. “Excellent compliance was most common for chlorhexidine use and least common for daily review of central line necessity,” the authors wrote. They concluded that, “The variability in compliance across ICUs suggests that, at the national level, room for improvement in CLABSI reduction remains.”

The interdisciplinary team led by Stone includes Columbia Nursing faculty Carolyn T.A. Herzig, PhD, associate research scientist, and Elaine Larson, PhD, associate dean for research.

The study appeared in the July 2016 issue of Infection Control & Hospital Epidemiology.
Hearth failure patients with left ventricular assist devices (LVADs) commonly experience the rapid, irregular heartbeat known as atrial fibrillation either before or after receiving an LVAD. Atrial Fibrillation (AF) that is properly managed with anticoagulation is not associated with the development of stroke or increased mortality in LVAD patients, a large, retrospective study from Columbia University found.

To determine the incidence of AF in patients with LVADs and assess its association with their cardiac outcomes, Associate Professor Kathleen T. Hickey, EdD, and co-researchers reviewed six years of electronic medical data from adults who received an LVAD between 2008 and 2014 at Columbia University Medical Center.

The 249 patients were mostly men, whose average age was 58 years. Of these, 37 percent had suffered a myocardial infarction, 69 percent had undergone heart valve surgery and 73 percent had received an implantable cardioverter defibrillator. Many were smokers or had chronic conditions such as diabetes, hypertension or dyslipidemia.

After receiving the LVAD, 80 study patients experienced AF: 56 had a history of the condition, while 24 developed it only after receiving their LVAD. Regardless of patients’ AF history, the occurrence of AF, either before or after LVAD insertion, was not associated with the development of stroke or mortality. “AF is a common arrhythmia in LVAD patients, but the presence of AF was not associated with an increased mortality risk if properly treated,” Hickey wrote.

LVADs are considered potentially life-saving interventions for patients with end-stage heart failure, and their use is increasing. Although AF is common among heart failure patients before or after LVAD implantation, the authors said the condition warrants more research. “Further prospective studies exploring the risks and benefits of rate versus rhythm control, and the impact of AF on repeat hospitalizations and quality of life (including potential symptomatic relief), in LVAD patients with AF are warranted.”

The study appeared in the May 25, 2016, online issue of JACC: Clinical Electrophysiology.
DENIAL PREVENTS MOST TEENS WITH MODERATE ASTHMA FROM SEEKING ROUTINE CARE

Despite their persistent symptoms, New York City high school students with moderate to severe asthma may not seek routine medical care, largely because they fear or misunderstand their condition, Columbia Nursing researchers report.

To understand what, if any, psychological factors play a role in teens’ not pursuing care for their wheezing, coughing, chest tightness or other asthma-like symptoms, Associate Professor of Applied Developmental Psychology (in Nursing) Jean-Marie Bruzzese, PhD, and colleagues analyzed cross-sectional data from a larger randomized controlled trial testing the efficacy of a school-based asthma intervention. Of the 291 urban, low-income 9th through 11th-graders they studied, most were female, Latina or African-American, and about 16 years old. The majority had health insurance (usually Medicaid) and a regular medical provider or clinic, but only 16.6 percent reported obtaining care for their symptoms in the past two months.

The most common reasons adolescents cited for not seeking care included believing that their symptoms were not serious, seeing a provider in the past and not receiving an asthma diagnosis, not wanting a diagnosis or medication, being busy, or having parents who did not think they needed care. General anxiety, stress or depression were not related to most of these reasons; however, asthma-related anxiety increased the odds that teens would seek care. Such anxiety, Bruzzese wrote, “may serve as a warning sign of danger and, coupled with the potentially urgent nature of their asthma-like symptoms, may prompt the adolescent to see a medical provider.”

Untreated asthma can be fatal. The fact that most of the adolescents in the intervention who had seen a provider had indeed received an asthma diagnosis points to the need for educational programs that emphasize the importance of recognizing and treating symptoms, and that help teens manage the fear or stigma that may discourage them from seeking treatment. “Delivering family and provider interventions, as well as offering public health campaigns, may increase the likelihood that adolescents with asthma will receive the appropriate diagnosis and care.”

The study was funded by the National Institutes of Health and appeared in the August 2016 issue of the Journal of Adolescent Health.
picture may be worth a thousand words, but when it comes to developing health-promoting infographics, pictures and words that are accessible, contextual and culturally relevant work best, research from Columbia Nursing suggests.

To determine what kind of infographics make health information understandable and therefore help motivate people to adopt healthy behaviors, Adriana Arcia, PhD, assistant professor, and colleagues invited residents of two Northern Manhattan communities to participate in 21 infographic design sessions. The researchers assessed participants’ understanding and opinions of the designs, modifying or eliminating some accordingly.

Most of the 102 participants were female and Hispanic, and ranged in age from 19 to 91 years. They were among nearly 6,000 residents who had contributed self-reported health information to the Washington Heights/Inwood Informatics Infrastructure for Comparative Effectiveness Research (WICER) project. Under the direction of Suzanne Bakken, PhD, Alumni Professor of Nursing, professor of biomedical informatics and co-director, Center for Evidence-based Practice in the Underserved, WICER aims to understand and improve the health of the Northern Manhattan community. The study incorporated WICER data into the infographics to show participants how their health compared with that of their neighbors and with recommended norms.

Participants preferred designs that contained the most information, context and culturally meaningful analogies. One favorite juxtaposed number lines displaying blood pressure ranges alongside a human figure with explanatory text about the risks of high blood pressure. The use of analogies, such as a battery to represent sleep/energy, was also popular. However, the repeated use of icons to indicate multiple instances of something more general, such as vegetable servings or days of exercise, sometimes led to overly literal interpretations: For example, some viewed a row of a certain fruit not as advice to eat fruit regularly but to eat the pictured fruit every day. Participants liked the use of color, such as red or orange to convey caution or danger.

Given the increasing use of digital tools such as patient portals, it is important that people, especially those with low levels of health-literacy, know how to interpret important health information. As Arcia wrote, “When it comes to tools for understanding health information, sometimes more is more.”

The study appeared in the July 13, 2015, online issue of the Journal of the American Medical Informatics Association (JAMIA).
Yudelka Garcia '12 '14 treating a patient at Columbia Nursing's primary care faculty practice.
TRANSFORMING PRIMARY CARE:
COLUMBIA NURSING’S NP-RUN FACULTY PRACTICE PROVIDES ACCESS TO NEW YORK CITY RESIDENTS

BY ANDREA KOTT, MPH
PHOTOGRAPHS BY JÖRG MEYER
Evelyn was ill. Halfway through her workday in Midtown Manhattan and far from her regular primary care practitioner, she walked over to Columbia Nursing’s primary care faculty practice near Rockefeller Center. One clinician was available: Sabrina Brem, DNP. “I was so physically sick I needed to see someone,” recounts Evelyn, who was concerned when Brem didn’t automatically prescribe an antibiotic. Brem diagnosed a virus. Then she did the unexpected: She asked Evelyn about her overall health, including her emotional wellbeing. “She didn’t rush me out,” Evelyn recalls. “She listened.” That day, Brem became Evelyn’s new primary care provider.

Many Americans are choosing nurse practitioners (NPs) as their primary care provider. Columbia Nursing was at the forefront of this trend more than two decades ago, when the need for affordable, accessible community healthcare led to its piloting of a satellite clinic for New York-Presbyterian Hospital. The clinic’s success encouraged the school to pilot its first faculty practice. Today, amid rising healthcare costs, a shortage of primary care physicians, and increasing longevity among the elderly and chronically ill, the need for accessible healthcare is growing. The school has responded by establishing three faculty practices: one in Midtown; one in Washington Heights, on 168th Street and Audubon Avenue; and a third in Morningside Heights. With the recent opening of the Washington Heights faculty practice—its most expansive—in September, the school also traded the moniker Columbia Advanced Practice Nurse Associates (CAPNA) for ColumbiaDoctors Primary Care Nurse Practitioner Group, staking its claim as a vital source of patient-centered care.

Compassion and Expertise
Evelyn’s health profile was complex. She had a virus. She also had an eating disorder, was in the throes of perimenopause and was weathering the stress of caring for her critically ill husband.

Brem was warm and empathic. She addressed the binging and purging that had kept Evelyn, who’d once topped 200 pounds, on a seesaw of weight gain and loss. She also administered a simple blood test to confirm the 47-year-old’s perimenopause. “She asks probing questions and she explains things,” Evelyn says. “I’m not embarrassed to tell her about my eating disorder. I’m not mortified to ask her questions because I know she won’t judge me. She’s gotten to know me as a whole person. I feel safe and comfortable.”

In addition to her sensitivity, Brem’s diagnostic acuity and knowledge of the medical literature impressed Evelyn, whose husband suffers from a rare muscular disorder. “She teaches, so she’s up on the latest medical information,” Evelyn says. “She knows exactly what my husband had.”

An Educational Pillar: Putting Patients First
Evelyn would soon learn that NPs who specialize in primary care provide a full range of clinical services including performing annual physicals, screenings, consultations and follow-up exams, administering vaccinations, treating illnesses, prescribing medications, and helping to manage chronic diseases such as diabetes and asthma. Studies indicate that patients choose NPs as their primary care provider not only for their vast medical knowledge and expertise as diagnosticians, but also for their emphasis on promoting health and wellness and the amount of time they spend with patients.

According to Stephen Ferrara, DNP, Associate Dean of Clinical Affairs, who oversees the school’s faculty practice, primary care is an NP’s specialty. Curricula for NPs— who have a rigorous scientific background and are board certified—are patient-centered. They underscore the importance of preventing disease, educating and involving patients in strategies to improve their health, counseling, and coordinating and advocating for community resources. “NP education is focused on combining the scientific underpinnings of physiology and disease processes with a holistic, person-centered approach to care,” Ferrara says.

Columbia Nursing takes this holistic, person-centered approach as it prepares NPs to become primary care practitioners. In fact, caring for patients in a primary care setting is a critical piece of its curri-
cula, along with teaching and research. Masters Direct Entry, masters and doctoral students all rotate through the faculty practices, where they shadow working NPs and perform clinical tasks under supervision. “We educate students from the classroom all the way to the clinical setting,” says Ferrara, who practices several days a week. “Not many nursing schools have their own practices. This is one of the three pillars of education, research and practice that separates Columbia Nursing from other schools.”

The NPs at the school’s three practice locations are all Columbia Nursing faculty, like Caroline Sullivan, DNP, Assistant Professor, who clinically leads the Midtown practice on West 51st Street. Being an educator keeps her abreast of the latest medical research, which informs not only the treatment she provides to her patients but also the mentoring she gives to her students. “Belonging to a faculty practice and teaching allows us to bridge the gap between the clinical and the academic,” Sullivan says, referring to her NP colleagues. “It’s good for us both as providers and as teachers, because it gives us real-world clinical experiences to bring into the classroom, which is exactly what our students need.”

The Washington Heights Facility Offers Integrated, Inclusive Care
On 168th Street and Audubon Avenue, around the corner from the new building site which will be Columbia Nursing’s future home in spring 2017, is a 3,300-square foot, state-of-the-art facility whose double-glass doors open into a welcome lounge painted in the school’s soft blue and green. A gently lit corridor wends past seven examination rooms, three mental health consultation rooms, a phlebotomy room and a large multi-purpose room where clinicians can meet or present public health-education programs on nutrition and on diabetes, high blood pressure, obesity, sexually transmitted infections and other chronic conditions prevalent in this medically and otherwise underserved neighborhood.

The facility is an important addition to Washington Heights, which has a large population of underserved and uninsured residents, some of whom struggle with depression and other forms of mental illness. Thus, outreach is an important feature here. With funding from the Health Research Services Administration, the practice is hiring a registered nurse care coordinator and a psychologist to advance team-based care delivery by NPs and other behavioral health professionals. This particular grant aims to improve access to evidence-based and culturally appropriate mental health and substance abuse services for LGBT adults, with an emphasis on the older LGBT community. Meanwhile, the practice’s routine clinical care includes the regular screening of all patients for mood disorders and substance use, which is in line with evidence-based recommendations for providing comprehensive primary care services, Ferrara explains. “We want our patients’ mental and physical health addressed at the same location without any silos.”

To achieve such seamlessness, the practice’s adult, family and psychiatric NPs work in concert to provide integrated physical and psychosocial care that includes everything from annual check-ups
and guideline-driven screenings to LGBT health, preventive health education, travel medicine and women’s health. The Washington Heights location has a full-time psychiatric mental health nurse practitioner, Sandra Alvarado. “We want to see everyone for well and preventive exams, and when people get sick, we’ll be here,” Ferrara says, proudly surveying the new site. “This is the future of primary care and we’re expanding.”

**Comprehensive Care: A One-Stop Shop**

In today’s competitive healthcare arena, convenience counts. The proliferation of walk-in clinics and urgent-care centers is testament to the demand that is driving the market. Ferrara recognizes this demand, which explains why the faculty practices place a premium on accommodating patients. “We’re not a walk-in but we know we need to be available,” he says, underscoring the practices’ distinction from urgent-care clinics. “We give same-day appointments but we’re not urgent care. I like to think we’re the opposite of urgent care, because we allow more time than an urgent-care clinic that sees patients every 15 or 20 minutes. We want long-term relationships with our patients.”

“Long-term” describes the relationships that Sullivan has with most of the patients she’s seen during her eight years at the school’s Midtown practice. “We have patients who have been coming since the day we opened,” she says. “They won’t go anywhere else.”

Among the many features patients like, Sullivan says, is the on-site location of diagnostic services, such as lab work and radiology. “People like having it all under one roof,” she says. “It’s a one-stop shop.”

As a clinician, Sullivan finds deep satisfaction in listening to patients’ concerns, addressing their questions and educating them on improving their health. She sees every 30-minute physical as an opportunity to teach patients about colonoscopy, mammography, obesity and stress management. “We get people who haven’t had a check-up in 15 years,” she says. “They’re obese; they have hypertension, high cholesterol, diabetes; they’re stressed; and we don’t know if they’re going to come back.” Therefore, she maximizes every patient encounter, which means scoping out signs of psychological problems. Nodding toward a stack of questionnaires that she uses to screen for depression and anxiety, she adds, “I cannot not be concerned about people’s mental health.”

An NP’s primary care education includes learning when to refer patients to specialists. As part of ColumbiaDoctors and in affiliation with NewYork-Presbyterian Hospital, the Nurse Practitioner Group provides patients with access to a world-class network of specialists from Columbia University Medical Center. “It’s a benefit for us and the patients to be within this network,” Sullivan says. “This is primary care at its best.”

**The Changing Face of Primary Care**

Columbia Nursing’s three faculty practices represent the changing face of primary care in the United States. Today, 83 percent of the country’s 220,000 NPs are certified in some type of primary care such as pediatrics, gerontology or women’s health, according to the American Association of Nurse Practitioners. And the numbers are growing, largely because fewer medical students and residents are entering the field. In fact, primary care medicine residency programs in the U.S. declined by three percent between 1995 and 2006, while training programs for primary care NPs increased by 61 percent.

Changes in healthcare financing are contributing to this trend. The days when physicians received financial incentives for seeing as many patients as possible are ending, Ferrara says. Soon, Medicare will reimburse providers according to patient outcomes.

NPs’ education and training have always geared them toward spending more time with their patients. “We’re nurses first, and nursing is about caring for people, providing information, and patient advocacy,” Ferrara says. “There are reasons why we chose this path.”

Likewise, there are reasons why Evelyn has made the Nurse Practitioner Group her new medical home. “I was amazed that Sabrina spent so much time with me,” she said, harkening back to her first visit. “I could feel that she genuinely cared about my well-being. I fell in love with her. I fell in love with the whole place.”

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“**We have patients who have been coming since the day we opened,**” says Sullivan. “**They won’t go anywhere else.**

"I was amazed that Sabrina spent so much time with me," said Evelyn, harkening back to her first visit. "I could feel that she genuinely cared about my well-being. I fell in love with her. I fell in love with the whole place."
TURNING AN IDEA INTO AN ENTERPRISE:
Six Nurse Entrepreneur Alumni whose Innovations are Meeting Today’s Healthcare Challenges

BY NAOMI FREUNDLICH

What drives people to start their own business? A great idea, a desire for autonomy, increased earning potential, a chance to change the status quo—these are some of the key motivators. Nurses who choose this path are a special breed of entrepreneur: They are insiders in the nation’s complex healthcare system. Their innovations are often rooted in a deep desire to advance and expand the practice of nursing, improve patient care and increase accessibility to essential services.

Making the jump from a great idea to a full-fledged business requires vision, leadership, determination and—by all accounts—a leap of faith. Below, Columbia Nursing alumni with prior business experience ranging from none to extensive share their stories of what inspired them to strike out as entrepreneurs. They also tell how the long tradition of problem-solving and innovation in nursing gave them the confidence to make that leap.

PHOTOGRAPHS BY JÖRG MEYER
Connecting Families and Nurse Entrepreneurs

Many business ventures build on the desire to better connect supply to demand. When it comes to linking families with nurses to provide one-on-one care, the need has been largely unmet. This became clear to Sam Jaquish and his co-founders of the professional networking site NurSearch when one of them was looking for a position and had difficulty finding an online resource specific to connecting families with nurses.

Last year, Jaquish, along with four partners—including three former Columbia Nursing classmates: Martin Guerin ’13 ’16, Ryan Maleknia ’13, and Kasey Woodin ’14—began building their website, and in April NurSearch went live. Using the NurSearch platform, both nurses and potential employers can create professional profiles, manage listings and contact parties that offer services or jobs specific to their needs.

“The real core of the site is finding the perfect nurse for each individual, or the perfect job for each nurse,” says Jaquish.

What makes the perfect fit? Some factors, such as speaking the same language or the distance someone is able to travel to work, are priorities. More individual factors include communication style; for example, some patients want to be left alone to sleep and rest, while others are looking for companionship and conversation. For some, how much a particular nurse charges is a deciding factor. “We encourage our nurses to set their own prices,” says Jaquish. “They are all independent providers and manage their own businesses.”

When the networking started up last April, Jaquish and his co-founders thought it might be challenging to convince families to hire nurses through a website. “It’s been the opposite,” he says, adding that the site regularly has 400 families seeking nurses. “Nurses are our country’s largest class of healthcare workers, but right now they’re incredibly inaccessible to employers,” he says. Through NurSearch, nurses can find listings for a variety of jobs in private care, in doctor’s offices, as health coaches or in consulting. Similar to companies such as AirBnB and Uber, NurSearch incorporates social accountability into its website; nurses can review clients, offering an assessment to those interested in this information.

NurSearch does not charge nurses a fee to sign up because, according to Jaquish, “We want to do everything we can to empower nurses to be entrepreneurs.”
Michael Wang and Paul Coyne both came to nursing after successful careers in business—Wang was an entrepreneur and Coyne had been an analyst at Goldman Sachs. Both men also had MBAs before enrolling at Columbia Nursing. But ask them about their new venture—developing a wall-mounted device called iN that transforms an ordinary hospital room into one able to meet the dynamic needs of patients and their families—and they point to their education and careers in nursing as essential to their innovation. “To be honest, all of the inspiration for this solution directly originated from our interactions with patients and fellow providers,” says Wang, who works as a nurse at a cardiothoracic surgical step-down unit at New York-Presbyterian Hospital (NYP).

In his practice, Wang observed that many patients became confused about who had visited them each day and what interventions or services they had received. Patients felt unable to communicate their needs and concerns to staff in a timely fashion. Families, meanwhile, worried that loved ones were being neglected and not meeting regularly with doctors or other practitioners. Wang shared his concerns with Coyne, a health informatics specialist who is manager of analytics at NYP, and together they began designing a patient care management system to address these issues—and more. The two formed a company, All [iN]spiRe Health, and developed the iN device along with a team of clinicians and technology experts from MIT and Columbia School of Engineering. Powered by proprietary hardware, software and mobile apps, the iN device analyzes patient-provider interactions, captures critical patient safety metrics such as hourly rounding and bedside reporting, and rewards nursing engagement and team work. “Every design aspect for this technology was driven by our commitment to improve patient outcomes,” says Coyne.

Clinicians with business backgrounds such as Coyne and Wang represent a new breed of nurses who are at the forefront of innovation. Their business acumen helps them better understand the economic forces driving healthcare, but they also believe that technological innovation should be rooted in compassion and devotion to care. That said, the fact that both men pursued nursing degrees—and, in Wang’s case, still practices clinically—is integral to the success of their venture. “To be able to truly see over the horizon to the future needs of patients, I needed to be a nurse,” says Wang. “Anything less than that would not be genuine.”
Lonnie Morris ’75
OWNER AND FOUNDER, THE CHILDBIRTH AND WOMEN’S WELLNESS CENTER

The Women’s Healthcare Pioneer

When Lonnie Morris graduated from Columbia Nursing as a certified nurse midwife (CNM) in 1975, she could not find a hospital that would hire her to deliver babies. “They said, ‘You might as well be a witch doctor,’” she says with a laugh. Undeterred, Morris signed a collaborative agreement with a sympathetic physician and created her own job: In 1976 she founded the Childbirth Center, the first out-of-hospital birthing facility in New Jersey. Eventually, the center—of which she was the sole proprietor—became part of a state demonstration project designed to measure the safety of out-of-hospital births. The findings established the safety of nurse-midwife-attended births in stand-alone birthing centers like Morris’s. In 1980, Morris successfully sued Blue Cross Blue Shield and became the first CNM in New Jersey to receive insurance reimbursement for her services.

By 2003, rising malpractice insurance rates and other expenses had made the stand-alone birthing center model economically unsustainable, and Morris closed the center that had served so many families for nearly three decades. Her entrepreneurial spirit unbowed, however, Morris founded a second business, The Childbirth and Women’s Wellness Center, which currently employs four midwives, provides primary care for hundreds of women and oversees some 250 births a year. As president of the New Jersey affiliate of the American College of Nurse Midwives, Morris also worked tirelessly to promote independent practice for other nurse midwives, too. In 2007, New Jersey changed its scope of practice laws for nurse midwives, making them the first nurse practitioners in the state to be able to practice without physician supervision.

Now, with privileges at two hospitals, Morris and her team of nurse-midwives definitely work hard; but as the owner of her own business, Morris values her independence and being able to realize the direct financial rewards of those efforts.
In 2013 Dyan Summers, a travel and tropical disease specialist, identified the first case of Zika virus in an American recreational traveler, a patient at her clinic who had spent time hiking in French Polynesia. At the time, the virus was little known outside the laboratory. But over the past year Zika, which can cause devastating birth defects in the fetuses of pregnant women who contract the mosquito-borne virus, has become epidemic in the Americas and the Pacific islands.

With the increased focus on Zika, Summers, who practices in New York City, has emerged as an expert on the virus and advises many travelers and athletes on how to lower their risk of exposure. A natural entrepreneur—Summers founded two nonprofit organizations over the past 16 years—she decided to build on her expertise in Zika (as well as malaria, yellow fever and other health risks) to create what is the first online business to offer face-to-face video consultations on travel and tropical medicine. The market is ripe for her start-up, says Summers, because so many people across the U.S. lack access to these services.

“Being in NYC, it’s wonderful that we can have patients come into our private office and have a consult one on one,” says Summers. “But there’s a big gap for people who live in other parts of the country where there isn’t a good travel clinic established.”

Her telemedicine business, called Mytraveldoctor.com, relies on a network of physicians and nurse practitioners around the country who are certified in travel and tropical medicine. Prospective clients log into an HIPAA-approved site and answer questions about where they live and plan to travel and provide a medical history. They receive a list of practitioners licensed in their state and can then set up a video consultation. After the consult, clients can pick up any necessary prescriptions and receive vaccinations at a local pharmacy.

“You’ll have an online folder that is also HIPAA compliant and it will have all the health information about the area you’re traveling in,” says Summers, “including updated health alerts, disease incidence, and risks associated with particular recreational activities such as scuba diving or hiking.”

Summers believes that Columbia Nursing’s DNP program gave her both the confidence and essential background in policy and research to open her online business. “By the time I was done with my education, I thought, ‘You know what, I’m really good at working independently and I want to be my own boss,’” she says. She recently learned how important it is to put together a team to assist in areas outside one’s expertise—in her case, tech people, legal experts and marketing folks—to help build a successful business.
The Matchmaker

Tim Lehey knows a lot of people in anesthesiology. For each of his 15 years as chief nurse anesthetist at Columbia Presbyterian Hospital (now NewYork-Presbyterian Hospital), he worked with 30 residents, many of whom have gone on to become influential in the field. And as a program director at Columbia University’s School of Nursing for six years, he placed student nurse anesthetists in 32 clinical sites from Baltimore to Connecticut, including every major hospital in New York City. Along the way, he developed deep insight into the work/practice environment at each site, including the hierarchy in place, level of autonomy and mix of cases CRNAs typically see.

This insider knowledge and network of strong connections at all the New York hospitals made Lehey a good resource both for facilities looking to hire CRNAs and for nurse anesthetists seeking jobs. “I was able to interpret as a nurse anesthetist, what were the advantages and disadvantages from each individual site and was able to say, ‘This person’s skill set seems perfectly suited to the job you’re offering.’” By 2008, Lehey realized that his unique ability for matchmaking could be parlayed into a special kind of nurse recruitment business—a boutique firm that works on behalf of candidates to place them in the type of work environment best suited to them. “I get paid by the facility, but I consider myself to be working for the nurse anesthetist,” he says.

Much of Lehey’s business is through word of mouth, and his nurse anesthetist-recruiting agency has grown organically, as grateful job-seekers refer friends and colleagues looking for a change. His agency is poised to grow even further, as ongoing changes in the healthcare system are leading to greater utilization of CRNAs. Regulations differ from state to state, but nurse anesthetists now are part of care teams that administer some 65 percent of anesthesia, says Lehey.

Lehey continues to practice; he works for Northeastern Anesthesia, a group that provides anesthesia care for a range of hospitals and ambulatory clinics north of Manhattan. And he believes that the impetus for starting his business really came out of a mindset fostered in nurse training and practice: “Recognize the need; recognize your own ability to impact change; and then do something about it.”
The imperative to provide education, resources and networks to positively impact global healthcare has never been more urgent. In an increasingly interconnected world, there is a rapidly growing awareness of the global health issues and inequities affecting millions, calling for new ways of thinking and problem solving.

One way Columbia University School of Nursing addresses this need is through its Office of Global Initiatives. The mission of the Office of Global Initiatives is to facilitate education, research, clinical practice and leadership by fostering strategic partnerships that advance the practice of nursing to address global health disparities. Through its relationships with nursing institutions, health facilities and professional organizations worldwide, it helps students at all degree levels understand the political, economic and cultural factors that affect healthcare around the world—and how through service, they can contribute to a better future. It also serves as a center within Columbia Nursing to coordinate faculty research on global health issues.

The office achieves its objectives by offering students a variety of study and research opportunities with partner organizations in Bangladesh, Bhutan, Brazil, Chile, Cuba, the Dominican Republic, Ethiopia, Ghana, Haiti, Jordan, Kenya, Malawi, South Africa, Spain and Thailand. These opportunities include everything from working alongside community health teams in a hospital in rural Ghana to caring for patients with HIV in facilities such as Clínica de la Familia in the Dominican Republic.

**WORKING WITH THE WORLD**

Much of this work takes place within the context of the office’s designation as a World Health Organization (WHO) Collaborating Center for Nursing and Midwifery. Columbia Nursing is one of only 44 such centers worldwide, a network that strives to support and enhance the roles of nurses and midwives in both practice and policy.

The Office of Global Initiatives combines an equity and inclusion perspective with a focus on human rights, to prepare students to understand and play a leading role in the promotion of global health justice, particularly in diverse medically underserved areas of the world.

“We want our nurses to have a breadth of knowledge and experience that leads them to a commitment to what I call ‘health justice,’” says Jennifer Dohrn, DNP, director of the Office of Global Initiatives and its WHO Collaborating Center. “In essence, the term means that health
and lifespan are basic human rights—these should not simply be dictated by the place where you were born.”

“Where you were born” determines many aspects of a person’s life, Dohrn notes, but perhaps none so much as health and lifespan. A child born in some parts of Africa today faces a far greater chance of dying before adulthood than a child born in the United States. Similarly, millions of people currently fleeing wars and persecution receive inadequate healthcare, or none at all. And diseases such as Ebola and Zika, once limited to specific geographic areas, are now only a plane ride away from anyone anywhere—and they generally have more devastating effects on people living in areas with inadequate healthcare systems.

“I spent a lot of time in Malawi, where I witnessed large numbers of childhood deaths from malaria, which is easily treated,” Dohrn says. “So many kids are dying of this—and there’s no reason for it other than lack of resources. We can help alleviate problems like this.”

Personal experience and the current global situation helped mold Dohrn’s philosophy, which is integral to the mission of the Office of Global Initiatives. “We want to create global nurses who have a sense of global citizenship and a responsibility to act,” she says. With this goal in mind, the office works hard to familiarize nursing students with the resources and health-system limitations that contribute to inequities around the world. Dohrn notes that understanding these issues “not only helps nursing students understand the need for global health justice—it helps them understand their own patients in the United States who may have roots in other countries. It also prepares them to look at the many health disparities right here.”

UNITING NURSES AND CREATING THE FUTURE

The Office of Global Initiatives is not just influencing individual nurses—it is also impacting the practice of nursing as a whole, often through coordinating programs and events with other global organizations. In July, for example, the office collaborated with Columbia Global Centers | Amman to host the “Global Nursing and Midwifery Clinical Research Development Initiative” in Amman, Jordan.

The summit, led by Dohrn and Elaine Larson, PhD, associate dean for research, convened experts from more than 20 eastern Mediterranean countries in an effort to make recommendations for addressing the region’s health needs during a time of war and massive population displacement.

“Columbia’s Global Centers are a natural partner for us,” Dohrn says. “Like us, they encourage teaching and research across disciplinary boundaries, as well as across country boundaries. The result is that instead of faculty doing isolated pockets of work, we create and participate in broad programs that can transform our entire approach to education and global health.”

Safwan M. Masri, PhD, professor, is executive vice president for Global Centers and Global Development at Columbia University, as well as Director of Columbia Global Centers | Amman. He notes that his centers and the Office of Global Initiatives take complementary approaches to research and educating students.

“Our focus is always on students,” Masri says. “Our goal is for them to become ‘global citizens’—and a citizen is not someone who simply exists, or who takes and never gives back. A global citizen engages with the world, experiences the world, is open to the world, and gives back to the world.”
Grace Kelley, a family nurse practitioner student, spent part of her time abroad working in the maternity ward of St. Anthony’s Hospital in Dzodze, a town in Ghana’s Volta Region. She also participated in conducting field research on toileting hygiene led by a non-governmental organization called Pencils of Promise (PoP).

“I went to Ghana because I am passionate about women’s health at the intersection of public health,” Kelley says. “I had spent time in Senegal during college, but during this trip to Africa, I wanted to be involved with hands-on healthcare. The Office of Global Initiatives gave me the opportunity to do that in rural Ghana.”

Kelley notes that St. Anthony’s was very different from her clinical rotations in New York, where hospitals are stocked with every medication and technology available. St. Anthony’s lacked basic medical equipment like pulse oximeters and basic comforts such as air conditioning.

Conditions at St. Anthony’s are common in healthcare facilities in low income countries of the world. For example, there were frequent shortages of everything from basic supplies to necessities. Despite the challenges, Kelley says she was inspired by the efforts of her coworkers. “The team there was willing to make things work for the patients, no matter what,” she says.

In addition, Kelley conducted surveys with PoP outreach teams of local people regarding hand washing after toileting. In that area of Ghana, many communities lack running water and often use the bush as their toilet. “We hit hand hygiene hard,” she says, “asking lots of questions to lots of people, especially school kids.” The data she helped collect will be used by PoP to encourage public and private changes in hygiene and better health outcomes.

Kelley says her African experience has prompted her to think differently about global health. “As a first-year nursing student abroad, when I first arrived I felt I had some insights to offer,” Kelley recalls. “However, in the end, the information transfer was primarily from them to me. I learned so much about the limitations and challenges nurses face in an area like that . . . And I learned about my own limitations. Now I feel I need to learn more. I need to do more. I stay in touch with the people I worked with in Ghana because I feel I will go back again someday.”

Dohrn notes the importance of such overseas experiences for students, for both the nursing profession and the future of global health. “Classroom learning is totally different from actual practice on the ground in a place like Ghana,” she says. “Sending nurses to these locations is transforming nursing knowledge and the way nurses practice in the world. We were able to send 24 students abroad this year—and it was a big triumph to hear them all say that they’d go back, given the opportunity.”

In the end, Dohrn’s vision is that the Office of Global Initiatives serves as an advocate for nurses and, more important, as an advocate for healthcare reform worldwide. “We all have a limited time on this Earth, and there’s a responsibility to be of service,” she says. “Whatever it takes, we all have a responsibility to build quality healthcare for everyone, everywhere.”
Our faculty’s research continues to create new knowledge that advances health care. Listed are selected articles published by leading peer-reviewed publications.

Adriana Arcia, PhD, assistant professor, was the first author of “Sometimes More is More: Iterative Participatory Design of Infographics for Engagement of Community Members with Varying Levels of Health Literacy,” published in the Journal of the American Informatics Association. Jacqueline Merrill, PhD, associate professor; Sunmoo Yoon, PhD, associate research scientist; and Suzanne Bakken, PhD, Alumni Professor of Nursing and professor of biomedical informatics, were among the co-authors.

Suzanne Bakken, PhD, Alumni Professor of Nursing and professor of biomedical informatics, was among the co-authors of “Integrating Community-Based Participatory Research and Informatics Approaches to Improve the Engagement and Health of Underserved Populations,” published in the Journal of the American Informatics Association. Jacqueline Merrill, PhD, associate professor; Sunmoo Yoon, PhD, associate research scientist; and Suzanne Bakken, PhD, Alumni Professor of Nursing and professor of biomedical informatics, were among the co-authors.

Suzanne Bakken, PhD, Alumni Professor of Nursing and professor of biomedical informatics, and Rebecca Schnall, PhD, assistant professor, were among the co-authors of “Sociotechnical Analysis of Health Information Exchange Consent Processes in an HIV Clinic,” published in the Journal of the Association of Nurses in AIDS Care.

Kenrick Cato, PhD, associate research scientist, was the first author of “Did I Tell You That? Ethical Issues Related to Using Computational Methods to Discover Non-Disclosed Patient Characteristics,” published in the Journal of Empirical Research on Human Research Ethics. Elaine Larson, PhD, associate dean for research, was among the co-authors.

Ruth Masterson Creber, PhD, associate research scientist, was the first author of “Engaging
Hospitalized Patients in Clinical Care: Study Protocol for a Pragmatic Randomized Controlled Trial,” published in Contemporary Clinical Trials. Suzanne Bakken, PhD, Alumni Professor of Nursing and professor of biomedical informatics, and Rebecca Schnall, PhD, assistant professor, were among the co-authors. Creber was also the first author of “Review and Analysis of Existing Mobile Phone Apps to Support Heart Failure Symptom Monitoring and Self-Care Management Using the Mobile Application Rating Scale (MARS),” published in the Journal of Medical Internet Research. She was also the first author of “Identifying the Complexity of Multiple Risk Factors for Obesity Among Urban Latinas,” published in the Journal of Immigrant and Minority Health. Jiafang Liu, PhD, data analyst, and Suzanne Bakken, PhD, Alumni Professor of Nursing and professor of biomedical informatics, were among the co-authors.

Dawn Dowding, PhD, professor, was the senior author of “Embedding Robotic Surgery into Routine Practice and Impacts on Communication and Decision Making: A Review of the Experience of Surgical Teams,” published in Cognition, Technology & Work.

Carolyn Herzig, PhD, associate research scientist, and Pat Stone, PhD, Centennial Professor of Health Policy, were among the co-authors of “Factors Associated with Resident Influenza Vaccination in a National Sample of Nursing Homes,” published in the American Journal of Infection Control.

Carolyn Herzig, PhD, associate research scientist, Elaine Larson, PhD, associate dean for research; and Pat Stone, PhD, Centennial Professor of Health Policy, were among the co-authors of “Central Line-Associated Bloodstream Infection Reduction and Bundle Compliance in Intensive Care Units: A National Study,” published in Infection Control & Hospital Epidemiology. They were also among the co-authors of “Impact of State Reporting Laws on Central Line-Associated Bloodstream Infection Rates in U.S. Adult Intensive Care Units,” published in Health Services Research.

Carolyn Herzig, PhD, associate research scientist, and Elaine Larson, PhD, associate dean for research, were among the co-authors of “HIV and Colonization with Staphylococcus aureus in Two Maximum-Security Prisons in New York State,” published in the Journal of Infection.

Kathleen Hickey, EdD, associate professor, was the first author of “Atrial Fibrillation in Patients With Left Ventricular Assist Devices: Incidence, Predictors, and Clinical Outcomes,” published in the Journal of the American College of Cardiology.

Robert Sciacca, biostatistician, and Margaret Flannery, assistant professor, were among the co-authors. Hickey was also among the co-authors of “Clinical and Gender Differences in Heart Transplant Recipients in the NEW HEART Study,” published in the European Journal of Cardiovascular Nursing. Robert Sciacca, biostatistician, and Carmen Castillo, clinical research coordinator, were among the co-authors. Hickey was also among the co-authors of “A Rolling-Horizon Pharmacokinetic Pharmacodynamic Model for Warfarin Inpatients in Transient Clinical States,” published in Personalized Medicine.


Kristine Kulage, director, Office of Scholarship and Research Development, and Elaine Larson, PhD, associate dean for research, were the co-authors of “Implementation and Outcomes of a Faculty-Based, Peer Review Manuscript Writing Workshop,” published in the Journal of Professional Nursing.

Marlene McHugh, DNP, assistant professor, was among the co-authors of “Integration of Palliative Care Advanced Practice Nurses into Intensive Care Unit Teams,” published in the American Journal of Hospice and Palliative Care.

Rebecca Schnall, PhD, assistant professor, was the first author of “A User-Centered Model for Designing Consumer Mobile Health (mHealth) Applications (Apps),” published in the Journal of Biomedical Informatics. Suzanne Bakken, PhD, Alumni Professor of Nursing and professor of biomedical informatics, was among the co-authors.

Arlene Smaild, PhD, assistant dean of scholarship and research, was the first author of “Study Protocol for a Randomized Controlled Trial to Assess the Feasibility of an Open Label Intervention to Improve Hydroxyurea Adherence in Youth with Sickle Cell Disease,” published in Contemporary Clinical Trials. Suzanne Bakken, PhD, Alumni Professor of Nursing and professor of biomedical informatics, and Haomiao Jia, PhD, associate professor, were among the co-authors. Smaild was among the co-authors of “Community Health Workers as Support for Sickle Cell Care,” published in the American Journal of Preventative Medicine; “Data-Driven Health Management: Reasoning About Personally Generated Data in Diabetes with Information Technologies,” published in the Journal of the American Medical Informatics Association; “Are School Nurses an Overlooked Resource in Reducing Childhood Obesity? A Systematic Review and Meta-Analysis,” published in the Journal of School Health; and “Very High Salivary Streptococcus Mutans Predicts Caries Progression in Young Children,” published in Pediatric Dentistry.

Carolyn Sun, PhD, associate research scientist, was the first author of “Clinical Nursing and Midwifery Research: Grey Literature in African Countries,” published in International Nursing Review. Jennifer Dohn, DNP, director, Office of Global Initiatives, and Elaine Larson, PhD, associate dean for research, were among the co-authors. Sun was also the first author of “Factors Associated with Clinical Nursing and Midwifery Research Topics Published in Southern and Eastern African Countries,” published in Evidence-based Medicine & Public Health. Haomiao Jia, PhD, associate professor, and Elaine Larson, PhD, associate dean for research, were the co-authors.
Government and Private Funding for Research and Training
July 1, 2015–June 30, 2016

**Principal Investigator:** Suzanne Bakken, PhD  
**Project Title:** New York City Hispanic Dementia Caregiver Research Program (NHiRP) [Diversity Supplement]  
**Program Funding Source:** NIH-NINR  
**Total Budget:** $129,964.00  
**Total Project Dates:** 7/1/2015–6/30/2017

**Principal Investigator:** Suzanne Bakken, PhD  
**Project Title:** New York City Hispanic Dementia Caregiver Research Program (NHiRP) [Admin Supplement]  
**Program Funding Source:** NIH-NINR  
**Total Budget:** $158,893.00  
**Total Project Dates:** 9/1/2015–9/10/2016

**Principal Investigator:** Suzanne Bakken, PhD  
**Project Title:** Reducing Health Disparities Through Informatics (Competing Continuation 2) T32 NR007969 5-33835/GG006524  
**Program Funding Source:** NIH-NINR  
**Total Budget:** $1,318,967.00  
**Total Project Dates:** 7/1/2012–6/30/2017

**Principal Investigator:** Suzanne Bakken, PhD  
**Project Title:** New York City Hispanic Dementia Caregiver Research Program (NHiRP) (Multiple PI: Luchsinger) R01 NR014430 GG007562  
**Program Funding Source:** NIH-NINR  
**Total Budget:** $2,662,135.00  
**Total Project Dates:** 6/1/2013–3/31/2018

**Principal Investigator:** Suzanne Bakken, PhD  
**Project Title:** Precision in Symptom Self-Management (PriSSM) Center 1P30NR016587-01 GG011843  
**Program Funding Source:** NIH-NINR  
**Total Budget:** $2,722,457.00  
**Total Project Dates:** 8/16/2016–5/31/2021

**Principal Investigator:** Bobbie Berkowitz, PhD, RN, FAAN  
**Project Title:** Hyde and Watson Foundation Grant (2015–2016)  
**Program Funding Source:** Hyde and Watson Foundation  
**Total Budget:** $9,900.00  
**Total Project Dates:** 11/1/2015–10/31/2016

**Principal Investigator:** Bobbie Berkowitz, PhD, RN, FAAN  
**Project Title:** Milbank Foundation for Rehabilitation Scholarship in Palliative Care (2015–2016)  
**Program Funding Source:** Milbank Foundation for Rehabilitation  
**Total Budget:** $50,000.00  
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**Principal Investigator:** Bobbie Berkowitz, PhD, RN, FAAN  
**Project Title:** Ladies Christian Union Foundation (2016-2017) LCU 16-0299 Ladies Christian Union Foundation  
**Total Budget:** $55,000.00  
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**Principal Investigator:** Bobbie Berkowitz, PhD, RN, FAAN  
**Project Title:** Provost–Faculty Recruitment for Underrepresented Groups  
**Program Funding Source:** CU Provost  
**Total Budget:** $285,418.00  
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**Principal Investigator:** Jean-Marie Bruzzese, PhD  
**Project Title:** Multi-Component Technology Intervention for African American Emerging Adults (WSU subcontract) R01 HL133506 GG011873  
**Program Funding Source:** NIH-NHLBI  
**Total Budget:** $31,093.00  
**Total Project Dates:** 9/1/2016–6/30/2021
Principal Investigator: Jean-Marie Bruzzone, PhD  
Project Title: Mobile Technology and Online Tools to Improve Asthma Control in Adolescents (3C subcontract)  
Program Funding Source: NIH-NHLBI  
Total Budget: $158,112.00  
Total Project Dates: 6/1/2016–5/31/2017

Principal Investigator: Jean-Marie Bruzzone, PhD  
Project Title: A Pilot Study to Improve Sleep Quality in Urban High School Students with Asthma (R21)  
Program Funding Source: NIH-NICHD  
Total Budget: $456,375.00  
Total Project Dates: 9/1/2016–8/31/2018

Principal Investigator: Mary Woods Byrne, PhD  
Project Title: Shared Healthy Alliances for Reflective Parenting (SHARP): Training and Early Trials (Sills)  
Program Funding Source: Sills Family Foundation  
Total Budget: $25,000.00  
Total Project Dates: 10/1/2016–9/30/2017

Principal Investigator: Jennifer Dohrn, DNP  
Project Title: Global Nursing Research Development Initiative (Co-PI: E. Larson)  
Program Funding Source: CU President’s Global Innovation Fund  
Total Budget: $150,000.00  
Total Project Dates: 7/1/2014–6/30/2017

Principal Investigator: Dawn Dowding, PhD  
Project Title: Finding the Safer Way: Novel Interaction Design Approaches to Health IT Safety (subcontract)  
Program Funding Source: AHRQ  
Total Budget: $7,520.00  
Total Project Dates: 7/1/2015–6/30/2019

Principal Investigator: Dawn Dowding, PhD  
Project Title: Improving Pressure Ulcer Prevention in Skilled Nursing Facilities  
Program Funding Source: Elderly Health Promotion, Inc.  
Total Budget: $50,112.00  
Total Project Dates: 6/16/2016–6/15/2017

Principal Investigator: Maureen George, PhD  
Project Title: Self-Care Decision-Making: Feasibility of the BREATHE Asthma Intervention Trial (R21 funded)  
Program Funding Source: NIH-NINR  
Total Budget: $455,758.00  
Total Project Dates: 9/26/2016–7/31/2018

Principal Investigator: Michael Greco, DNP  
Project Title: Nurse Anesthetist Traineeships A22 HP29901-01-00  
Program Funding Source: HRSA  
Total Budget: $27,257.00  
Total Project Dates: 7/1/2016–6/30/2017

Principal Investigator: Amanda Hessels, PhD  
Project Title: Impact of Patient Safety Climate on Infection Prevention Practices and Healthcare Worker and Patient Outcomes  
Program Funding Source: CDC  
Total Budget: $324,000.00  
Total Project Dates: 9/2/2016–8/31/2019

Principal Investigator: Kathleen Hickey, EdD  
Project Title: iPhone Helping Evaluate Atrial Fibrillation Rhythm Through Technology (iHEART) (1st submission)  
Program Funding Source: NIH-NINR  
Total Budget: $1,988,000.00  
Total Project Dates: 8/1/2014–5/31/2019

Principal Investigator: Kathleen Hickey, EdD  
Project Title: Home ECG Monitoring to Detect Allograft Rejection Following Heart Transplantation (UCSF R01–Hickey SubPI)  
Program Funding Source: NIH-NINR  
Total Budget: $963,425.00  
Total Project Dates: 3/15/2011–1/31/2017

Principal Investigator: Haomiao Jia, PhD  
Project Title: Poisonings, Coroners, and Differential Suicide Undercounting: Evidence from Suicide Notes (Jia–subcontract PI)  
Subcontract No. 04-441-CU  
Program Funding Source: CDC  
Total Budget: $65,312.00  
Total Project Dates: 8/1/2015–7/31/2017

Principal Investigator: Jeffrey Kwong, DNP  
Project Title: Collaborative Access for LGBT Adults (CALA)  
Program Funding Source: HRSA  
Total Budget: $981,623.00  
Total Project Dates: 7/1/2014–6/30/2018

Principal Investigator: Jeffrey Kwong, DNP  
Project Title: Elder LGBT Interprofessional Collaborative Care (E-LINC)  
Program Funding Source: HRSA  
Total Budget: $1,467,978.00  
Total Project Dates: 7/1/2014–6/30/2017

Principal Investigator: Elaine Larson, PhD  
Project Title: Training in Interdisciplinary Research to Prevent Infections (TIRI) (Multiple PI: L. Saiman)  
Program Funding Source: NIH-NINR  
Total Budget: $361,556.00  
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<td>Elaine Larson, PhD</td>
<td>Nursing Intensity of Patient Care Needs and Rates of Healthcare-Associated Infections (NIC-HAI) R01HS024915</td>
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<td>Developing Dashboards at the Point of Care in Home Care Settings</td>
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<td>Michelle Odlum, EdD</td>
<td>Understanding the Interaction Between HIV and Health Outcomes in a New York City Vulnerable Population of Women Living with HIV/AIDS</td>
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<td>Further Psychometric Testing and Validation of the Errors of Care Omission Survey (EoCOS) R03HS024758</td>
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<td>Primary Care Nurse Practitioner Practice Environments and Impact on Quality of Care and NP Outcomes 71250 PG005440</td>
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<td>An Ecological Understanding of Physical Activity Patterns of Adults Living with HIV Throughout the Lifespan</td>
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**Principal Investigator:** Rebecca Schnall, PhD  
**Project Title:** Use of mHealth Technology for Supporting Symptom Management in Underserved Persons Living with HIV  
**Program Funding Source:** AHRQ  
**Total Budget:** $298,363.00  
**Total Project Dates:** 4/3/2015–3/31/2017

**Principal Investigator:** Rebecca Schnall, PhD  
**Project Title:** The Wise App Trial for Improving Health Outcomes in PLWH R01 HS025071  
**Program Funding Source:** AHRQ  
**Total Budget:** $1,989,445.00  
**Total Project Dates:** 9/30/2016–9/29/2021

**Principal Investigator:** Rebecca Schnall, PhD  
**Project Title:** Video Information Provider for HIV-Associated Non-AIDS (VIP-HANA) Symptoms 1R01NR015737-01A1  
**Program Funding Source:** NIH-NINR  
**Total Budget:** $2,331,859.00  
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**Principal Investigator:** Jingjing Shang, PhD  
**Project Title:** Infection-Related Socioeconomic Disparities in Home Health Care  
**Program Funding Source:** CUSON Intramural Pilot Grant  
**Total Budget:** $9,500.00  
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**Principal Investigator:** Jingjing Shang, PhD  
**Project Title:** Infection Control in Home Care and Predictive Risk Modeling R01 HS024723  
**Program Funding Source:** AHRQ  
**Total Budget:** $1,391,760.00  
**Total Project Dates:** 7/1/2016–4/30/2019

**Principal Investigator:** Arlene Smaldone, PhD  
**Project Title:** Columbia University Future of Nursing Scholars (3rd Cohort–2 Scholars) JHNSON 73510 PG008250  
**Program Funding Source:** RWJF  
**Total Budget:** $75,000.00  
**Total Project Dates:** 4/15/2016–7/31/2019

**Principal Investigator:** Arlene Smaldone, PhD  
**Project Title:** Jonas Nurse Leaders and Veterans Scholar Program 2016–2018  
**Program Funding Source:** Jonas Center for Nursing and Veterans Healthcare  
**Total Budget:** $80,000.00  
**Total Project Dates:** 6/1/2016–7/31/2018

**Principal Investigator:** Arlene Smaldone, PhD  
**Project Title:** Columbia University Future of Nursing Scholars (2nd Cohort–2 Scholars) 72569 PG005070  
**Program Funding Source:** RWJF  
**Total Budget:** $100,000.00  
**Total Project Dates:** 4/1/2015–8/31/2018

**Principal Investigator:** Pat Stone, PhD  
**Project Title:** Barriers and Facilitators for NHSN Adoption in Nursing Homes (CDC) 200-2016-91952  
**Program Funding Source:** CDC  
**Total Budget:** $371,995.00  
**Total Project Dates:** 9/20/2016–9/19/2017

**Principal Investigator:** Pat Stone, PhD  
**Project Title:** Comparative and Cost-Effectiveness Research Training for Nurse Scientists (T32) T32 NR014205 GG009092  
**Program Funding Source:** NIH-NINR  
**Total Budget:** $749,008.00  
**Total Project Dates:** 7/1/2013–6/30/2018

**Principal Investigator:** Pat Stone, PhD  
**Project Title:** Prevention of Nosocomial Infections and Cost Effectiveness in Nursing Homes (PNICE-NH) R01 NR013687 GG007507  
**Program Funding Source:** NIH-NINR  
**Total Budget:** $2,484,785.00  
**Total Project Dates:** 7/1/2012–4/30/2017

**Principal Investigator:** Judy Wolfe, EdD  
**Project Title:** NSL–Graduate Nursing 4 E4DHP17942-02-00  
**Program Funding Source:** HRSA  
**Total Budget:** $12,358.00  
**Total Project Dates:** 7/1/2015–6/30/2016
More than 220 alumni, faculty and guests gathered in May for Reunion. Six Distinguished Alumni Awards were presented to five alumni and one honorary recipient. Attendees visited the sites of the new school building and Columbia Nursing’s Nurse Practitioner Group faculty primary care practice. The day concluded with a jazz reception at the Georgian Building.

For the second year, we’re offering a special opportunity to extend Alumni Reunion and earn ANCC continuing education and pharmacology credits. The Nurse Practitioner Association of New York State will hold its 2017 Spring Conference on Saturday, May 6, 2017. More details to follow.

For information about next year’s event, or to join a reunion committee, please contact Mairead Moore, 212.305.5999 or mm4513@columbia.edu, or Denise Ewing, 914.481.5787.

Photographs by Michael DiVito
1: Presenters from Alumni Voices Across the Years: A Panel Discussion: Dennis Graham ’93 ’08; Kenrick Cato ’08 ’14, associate research scientist; Betty Carrington ’71; Bobbie Berkowitz, dean, Columbia University School of Nursing; Christina Alvarado Shanahan ’81; Susan Fox ’84; Barbara Hanevold-Carter ’66; Don Boyd ’06 ’16

2: Mary Moran ’08, instructor, with Columbia Nursing students dressed in vintage nursing uniforms

3: Dasola Okunola ’16; Jena Simon ’07 ’10; Cassandra Elaine Dobson ’06

4: Kevin Browne ’92; Don Boyd ’06 ’16; Lyda Shambo, assistant professor and assistant director, Nurse Anesthesia Program; Michael Greco, assistant professor and director, Nurse Anesthesia Program

5: Laura Ardizzone ’04 ’10; Jeanne Churchill ’10, assistant professor; Julie Schnur ’03 ’05 ’13

6: Distinguished Alumni Award Recipients with DAA committee co-chairs. Joan Hagan Arnold ’69; Wilhelmmina Manzano, senior vice president and chief nurse executive, New York-Presbyterian Hospital; Susan Krienke Chase ’72; Jill Kilanowski ’77 ’82; Amy Ansehl ’94 ’96; Wei-Ti Chen ’98 ’02; Viola Ruelke Gommer ’60; Angela Clarke Duff ’70

7: Catherine Keane ’15; Marie Castronovo ’12 ’15

8: Midge Harrison Fleming ’69; Betty Carrington ’71

9: Class of 1966 alumni celebrated their 50th Reunion

10: Class of 1951 alumni celebrated their 65th reunion. Veronica Vaillancourt ’51; Ruth Frary Perraud ’51; Lucy Jobson Wierum ’51; Marilyn Johnsen Hamel ’51; Zelpha Card Hoyer ’51

11: Front row: Barbara Kunzman Moore ’61; Joan Ambrose McCormick ’61; Olga Brown Vanderpool ’70; Louise Malarkey ’62; Back Row: Maureen Gallagher Gibbons ’61; Stephanie Kuhn Wright ’65; Helen Blackwood Josey ’62

12: Students led tours of the new school building site with Tony Donatich, project manager, CUMC Facilities

13: Jasmine Travers ’16; Sarah Williams ’66; Natalia Richey ’13 ’14
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For more information, please contact Janine Handfus, Associate Director, Annual Fund at jh2526@columbia.edu or at 212.305.0079.
“Columbia Nursing instilled a strong desire in me to serve a greater good, which eventually led me to join the Navy. I was compelled by the notion of participating in a mission bigger than myself. Eventually this grew into a passion and a lifelong career.

I was first mobilized for the Gulf War in 1990. I had only been in the Navy for a short time and I wasn’t sure if I would ever return home. I gave my young son a photo of us so he would remember me. War brings a lot of uncertainty but I never doubted my ability to care for injured service members and get the job done. That confidence came from my education at Columbia Nursing.

Looking back on my 28-year career, I realize I owe a lot to the school where I acquired solid clinical skills and developed into a self-confident young woman who was willing to take risks for a worthy cause. To this day, the school continues to motivate and instill a strong sense of service in its students. That is why I give back to Columbia Nursing.”

— Rear Adm. Tina Alvarado, ’81
Deputy Chief, U.S. Navy
Bureau of Medicine and Surgery
Reserve Policy and Integration
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Mark your calendar for upcoming events, including our 125th Anniversary Spotlight celebrations across the nation featuring Dean Bobbie Berkowitz.

February 2, 2017
Cost and Quality in Healthcare: Experts Assess Today’s Trends
New York, NY

February 16, 2017
Philadelphia, PA Spotlight Event

March 26, 2017
New Canaan, CT Spotlight Event

April 6, 2017
Boston, MA Spotlight Event

June 28, 2017
Seattle, WA Spotlight Event

May 5, 2017
Alumni Reunion 125th Anniversary Celebration

New Building Dedication
(details forthcoming)

Learn more at www.nursing.columbia.edu/alumni/events