

CAROLINA PUBLIC HEALTH

Gillings School of Global Public Health

The University of North Carolina at Chapel Hill

SPRING 2015 • VOLUME 2 • NUMBER 7



Public health
innovation—
Local, global, galactic

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A GIFT THAT WILL KEEP GIVING

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sph.unc.edu/cph

19,200 copies of this document were printed at a cost of \$21,872 or \$1.14 per copy.

Carolina Public Health (ISSN 1938-2790) is published twice yearly by the UNC Gillings School of Global Public Health, 135 Dauer Dr., Campus Box 7400, University of North Carolina at Chapel Hill, Chapel Hill, NC 27599-7400.

Vol. 2, No. 7, Spring 2015

from the DEAN'S DESK

Dear friends of the Gillings School:

Thank you for taking time to read *Carolina Public Health*.

It is a joy to tell you about some of the many wonderful programs and people who make the Gillings School such a special place. As the latest *U.S. News & World Report* rankings confirmed, we still are the top *public* school of public health and are ranked second overall. We take pride in this place among the publics, in an ever-expanding number of schools and programs of public health.

While we have grown in square feet and numbers of people over the last decades, we haven't lost the heart, soul and brilliance or the collective commitment to social justice that have characterized this School throughout its 75 years. These characteristics are manifested in many ways — outrage at unfairness, dogged determination in the face of disparities, willingness to speak out, urgency for action, unwavering commitment to excellence and the joy of solving big, real-world problems.

This issue contains some superb examples of those different expressions — the dedicated

health policy and management students who repeatedly win case competitions and our capstone students who take on the problems



Dean Barbara K. Rimer

communities experience and bring forth solutions. Dilshad Jaff, a remarkable physician from Iraq, is a Master of Public Health student in maternal and child health. He is encouraging us to explore new directions, including refugee health.

The greatness of this School is due, in part, to the partnerships we

develop with our students. People routinely talk about how students are changed by their educational experiences, but we, who remain here after them, are changed as well.

You'll read about how our feet-on-the-ground entrepreneurial visionary and executive in residence, Don Holzworth, MS, is preparing to become one of the first civilians in space, while our commencement speaker, John Herrington, PhD, was the first Native American astronaut. His brother, Jim Herrington, PhD, Professor of the Practice of health behavior and director of the Gillings Global Gateway,TM who also flies, brings that aerial sense of the world to his understanding of global health.

Those images — soaring flight and on-the-ground reality — are two sides of the Gillings School coin. They're both us!

Please feel free to get in touch with me anytime.

Warm regards,



Barbara K. Rimer, DrPH

Don Holzworth stands on the tarmac in front of the Virgin Galactic spacecraft that he hopes will carry him into space in the next two years.

Photo by Jennifer Holzworth

A photograph of Don Holzworth, a man with a mustache, wearing a yellow baseball cap with a logo, sunglasses, and an orange button-down shirt. He is standing on an airfield with a large white aircraft in the background under a clear blue sky.

DON HOLZWORTH

NEW FRONTIER *for*
a PUBLIC HEALTH
ENTREPRENEUR

THE RISK of betting personal futures, cash and credit lines on new start-ups, untried ideas and emerging markets is the essence of being an entrepreneur.

Don Holzworth, MS, the Gillings School's executive in residence, took even greater risks in his own

entrepreneurial pursuits. He has focused on solutions in public health and health care in both the U.S. and developing world.

He has been inspired by helping those who live in more than 60 countries, for whom fresh water, basic sanitation, electricity and

floors not made of earth are an exception to the rule.

His is entrepreneurial risk-taking, coupled with the desire to help people—but there's another element involved, as well.

"I've always had a sense of adventure," says Holzworth, with

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HOLZWORTH'S LIFELONG MISSION IN PUBLIC HEALTH

Seeking out new frontiers is nothing new for Don Holzworth. After all, he spent more than 30 years of his entrepreneurial career bringing public health solutions to people who often received little attention from other organizations. He has made a difference in dozens of countries in the developing world, where companies he built have conducted groundbreaking policy and program development work, providing tools and guidance to ministers of health and community organizations to prevent the spread of infectious diseases.

"I am one of those people who believes that nothing is impossible," Holzworth says. "We were sure we could produce positive results in places where other people said it was difficult or impossible, and on the whole, we were successful in our efforts."

Holzworth is founder of *GivingPositively.org*, a nonprofit that helps HIV-positive Ugandan youth gain financial independence through tailored

vocational training programs that enable them to make sustainable lives for themselves.

He is also on the board of directors' executive committee of the Accordia Global Health Foundation, a nonprofit organization that works to reduce infectious disease outbreaks by building health-care capacity and strengthening academic medical institutions in sub-Saharan Africa.

Holzworth was appointed by President George W. Bush to the President's Advisory Council on HIV/AIDS (PACHA), which influences domestic and international HIV/AIDS policy.

His generosity to the Gillings School — both in time and funding — has led to a number of advances. He endowed two scholarships and the Don and Jennifer Holzworth Distinguished Professorship of environmental sciences and engineering at the School. He also chairs the School's advisory council.

Jennifer and Don Holzworth (left and center) talk with Dr. Jamie Bartram (right), director of The Water Institute at UNC and the Don and Jennifer Holzworth Professor of environmental sciences and engineering at the Gillings School.



Photo by Linda Kastleman

Holzworth (encircled below) poses with other citizen astronauts at Virgin Galactic during a training session. Sir Richard Branson, founder of the Virgin Group, is in a black leather jacket in the 8 o'clock position from Holzworth.



Photo courtesy of Virgin Galactic

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a smile. “Nothing too crazy, but I definitely like a challenge.”

Risk, adventure and entrepreneurship — and an eye on public health — figure into Holzworth’s next challenge — space flight.

Specifically, Holzworth is training to be among the first private citizens to venture into space on Virgin Galactic’s SpaceShipTwo.

For Holzworth, a suborbital flight more than 60 miles above the earth is the culmination of a lifelong dream.

“I grew up during the space race and greatly admired the Mercury astronauts — and then those in the Gemini and Apollo programs,” says Holzworth, who also chairs the Gillings School’s advisory council and previously

was on the University of North Carolina at Chapel Hill’s board of visitors. “I wanted to be an astronaut, and John Glenn was my hero growing up. I even got to meet him twice.”

The first meeting was when Holzworth was in Boy Scouts. Years later, he met Glenn again when the surviving Mercury 7 astronauts

came back to Chapel Hill, N.C., to commemorate the extensive celestial navigation instruction they received at Morehead Planetarium.

Holzworth credits scouting with stoking his sense of adventure. Hiking and camping in the Rocky Mountains and canoeing in the U.S.-Canadian boundary waters wilderness taught him to respect nature while giving him a new perspective on the limits he could approach and conquer. Through it all, he held fast to his dream of becoming an astronaut, so much so that he worked all through high school with a single goal in

mind—to earn a commission to the Air Force Academy’s pilot training program.

“I did it, too,” he said, with a touch of pride in his voice. “But when I came to the crossroad, I decided to follow another path.”

The decision was motivated in large part by the Vietnam War. Rather than entering the Academy, Holzworth opted for a Bachelor of Science in systems analysis and a master’s degree in environmental sciences, both from Miami University in Ohio. He also received advanced graduate training in biostatistics at N.C. State University.

Hired as a biostatistician by Battelle Memorial Institute in Washington, D.C., he soon was promoted to principal research scientist and oversaw a staff of more than 40 people. Still, Holzworth’s sense of adventure remained strong. In the early 1980s, he accepted the vice-presidency of a 50-person entrepreneurial firm called Program Resources Inc. Within a few years, he had helped grow the business tenfold.

This began a series of entrepreneurial ventures. In the 1980s, he also founded the Constella Group, a consulting firm that he grew into a global player, implementing

Holzworth, fourth from left, poses with his partners-in-training at the National Aerospace Training and Research (NASTAR) Center.



Photo courtesy of Virgin Galactic

public health solutions in more than 61 countries.

He sold his interest in the firm in 2007 but remains active in implementing innovative public health solutions in sub-Saharan Africa as a board member of the Accordia Global Health Foundation and as founder of *GivingPositively.org*, a philanthropic effort to provide educational opportunities for healthy young adults living with HIV. In 2009, he became the Gillings School's executive in residence and uses his expertise to advise students and faculty members who are interested in potential entrepreneurial ventures emanating from their studies or research at the School.

Holzworth continues to indulge a sense of adventure in his private life, as well. In his free time, he has gone skydiving, back-country skiing in the U.S. and Europe, bungee-jumping in New Zealand, and scuba diving in oceans around the world. His desire for space travel never died—even though he knew, as time passed, it was becoming increasingly unlikely.

Then, fellow entrepreneur Richard Branson launched Virgin Galactic.

Branson, who had grown a one-man, mail-order record business into the global Virgin Group, which includes 400 entertainment, communications, hospitality and transportation companies, decided to take his success into space. Holzworth was intrigued, but he didn't commit until he got a nudge from an important adviser.



"When my wife heard about Virgin Galactic, she said, 'This is all you've talked about for years. You *have* to do it!'"

However, becoming a SpaceShipTwo astronaut involved more than signing on the dotted line and paying a significant fee. Challenging physical training is required. This includes two days at the National Aerospace Training and Research Center's centrifuge, which simulates virtually every condition involved with space flight, including the intense gravitational (*g*) force exerted on the human body during lift-off and re-entry.

"The *g*-force—sometimes in excess of four *gs*—would come at you from different directions," Holzworth says. "They taught us specialized breathing techniques so we wouldn't black out. The entire process was just fascinating."

Holzworth plans soon to ride NASA's "Vomit Comet," a specially-outfitted C-130 aircraft that uses parabolic dives at high altitude to simulate weightlessness. There also will be four days of training at Virgin

Galactic's New Mexico spaceport and then, if all goes according to plan, a journey into space sometime within the next two years.

"With Constella, our goal was to target a public health-related need and develop an innovation that provided an efficient solution to the challenge," Holzworth says. "That's how public health works—and it's how space travel works. Set our sights on where we want to go, and find a way to get there."

After several careers that challenged boundaries in global public health, Holzworth's wish to be among the best drew him to the Gillings School and its commitment to excellence. Here, as consultant and adviser, he has ignited and fanned into flame the innovative ideas of student and faculty entrepreneurs—and yes, has helped them take flight.

Whether as business leader or astronaut, Holzworth's reach tends to be significantly beyond his grasp. You'll find him always moving toward the next frontier.

—David Pesci



JIM HERRINGTON

LIVING THE
**‘LOCAL IS
GLOBAL’**
ETHIC



Dr. Jim Herrington's *distinguished career in public health began with a game of Spin the Bottle.*

During his tenure in the Peace Corps, Herrington was invited to travel to a remote outpost of southern Senegal. Along with colleagues from the U.S. Agency for International Development, UNICEF and Senegal's Ministry of Health, he paddled in a dugout canoe

(continued, page 12)





Dr. Jim Herrington (left) and his son Chris attended a “Roll Back Malaria” concert in Nioro du Rip, Senegal, in 2005.

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through the densely forested territory of Casamance. At each village, they randomly surveyed households to gauge children’s immunization status. The team members always carried a bottle.

“You take a bottle and set it in the central part of the village,” says Herrington. “You spin it and go in the direction that it stops.”

By using the Expanded Programme on Immunisation (EPI) “100 Household Random Sample Survey Method,” they were able to estimate accurately the extent of coverage for childhood vaccines in the region.

“I just found it fascinating to be out in the field conducting these surveillance programs,” says Herrington. “That was the first sense I had as to what it might be like to be in public health.”



The Peace Corps was a surprising choice for Herrington, given his roots. Reared in a blue-collar home, he was the first in his family to go to college. He had never been outside the U.S., much less to sub-Saharan Africa.

“I was in uncharted territory,” Herrington says.

It wasn’t long before he felt at home in the wide world. Soon after the Peace Corps, Herrington earned a Master of Public Health



Photo by Linda Kastleman

Dr. Herrington (right) speaks with Gillings School students at a "careers in public health" event in fall 2014.



Contributed photo

An avid pilot, Dr. Herrington (left) prepares for a flight with his son Ben.

degree in health behavior from the Gillings School, and later earned a doctorate in epidemiology, with an environmental focus, from Colorado State University. For many years, he served as a health scientist for the Centers for Disease Control and Prevention and, most recently, he was director of international relations for the National

Institutes of Health's Fogarty International Center.

In 2014, Herrington's journey came full circle. He returned to UNC's Gillings School of Global Public Health to take a job as the first executive director of the Gillings Global Gateway™. Developing the Gateway had been the strongest recommendation made by a

HERRINGTON'S GOALS FOR THE GATEWAY

Dr. Jim Herrington plans to launch at least three initial Gillings Global Gateway™ initiatives, all aimed at helping students and faculty members gain access to world-class research and fieldwork opportunities.

GILLINGS SCHOOL DIGITAL GLOBE

The digital globe will show a distribution of all UNC public health research activities—past and present—both on campus and throughout the world. Searchable by keywords, it will include links to principal investigators and their projects, abstracts and other resources to facilitate connections and collaboration among researchers.

GILLINGS SCHOOL TAR HEEL STUDENT PRACTICA DATABASE

The Gateway will host an online archive of all past practica and share potential resources for current or future opportunities, to help students gain real-world experience.

FUNDING OPPORTUNITIES FOR FACULTY MEMBERS

The Gateway staff will develop online tools to share new opportunities with faculty members on a weekly basis, helping them access funding for research, travel and teaching.

SPH2020 committee that focused on the School's global activities.

Since taking the new position, he has begun what he calls his "Metallica listening tour" to better understand how to help students and faculty members succeed.

"I call it that because I want to hear what people have to say, and I want to hear it *loud*," Herrington says. "My goal is to meet students and faculty members where they are, discover what they're interested in, and facilitate connections with external partners and resources."

In addition to his work supporting students and the faculty, Herrington continues to pursue his own research. He has published

articles on how our perceptions of susceptibility to disease drive health practices (such as the decision to vaccinate). He is also something of an entrepreneur, collaborating with colleagues on the development of a handheld medical device that can decipher real versus counterfeit medicines.

Herrington has worked in more than 35 countries around the world, but at this stage in his life, his greatest rewards come from mentoring the next generation of public health professionals.

"We have a real niche opportunity at the Gillings School to become the go-to place for global public health," Herrington says. "Why? Because of

the student talent we attract and the cutting-edge science conducted by our many researchers who collaborate around the globe. I'm very excited to be a part of it."

—Amy Strong

The Expanded Programme on Immunisation (EPI) '100 Household Survey Method' to which Herrington refers is described on the page numbered '17' of a World Health Organization document found at tinyurl.com/WHO-Epi-survey.

See the sidebar on page 13 to learn more about Herrington's initial goals for the Gateway.

ABOUT JIM HERRINGTON, PhD

A Native American of the Chickasaw tribe, Herrington holds a Bachelor of Science degree in psychology from Texas A&M University, a Master of Public Health degree in health behavior from the Gillings School (1983) and a doctorate in environmental health and epidemiology from Colorado State University. Like his brother, he is a pilot and enjoys flying. Read more about him at sph.unc.edu/Herrington-QA.

Although Herrington was the first in his family to go to college, he wasn't the last. His younger brother, John B. Herrington, PhD, earned a master's degree in aeronautical engineering, applied to NASA, and became the first Native American astronaut. John Herrington is scheduled to deliver the spring 2015 Gillings School of Global Public Health commencement address. Read more about him on page 15.



Contributed photo

Dr. Jim Herrington (right) posed in Senegal with George Coleman, the first Peace Corps director in Brazil.

UP, UP AND AWAY!

ASTRONAUT HERRINGTON TO PRESENT SCHOOL'S COMMENCEMENT ADDRESS

Don Holzworth is not the only astronaut in the house — there's another spaceman on the horizon.

John B. Herrington, PhD, retired commander in the U.S. Navy and brother of Gillings Global Gateway™ director Jim Herrington, PhD, is scheduled to talk to graduating public health students on Saturday, May 9.

Herrington, a member of the Chickasaw tribe, was the first Native American in space. After serving as a Navy aviator and test pilot, he was selected for NASA's astronaut training program. On one mission, he logged more than 330 hours in space and engaged in three spacewalks, totaling nearly 20 hours outside the shuttle. (See photo below.)

When he retired from the Navy and left NASA in 2005, he wondered whether he could find an “earthly” passion to inspire him as much as being an astronaut had.

“I decided to ride a bicycle from Cape Flattery, Wash., to Cape Canaveral, Fla., and speak to Native communities about the benefits of STEM (Science, Technology, Engineering and Math) education,” he said.

Native Americans are the least represented minority in math and science.

“While I miss the rigor and excitement of a space mission, I’ve found an opportunity to visit with and talk to students who are unsure about their opportunities,” he says. “Challenge is something we all must embrace — and I pass along my academic and professional experience in the hope that a student will become motivated to fulfill his or her own dreams.”

—David Pesci



Photos of Herrington courtesy of NASA



THE FIGHT AGAINST EBOLA



An exhausted nurse in Sierra Leone takes a break from treating patients. Sixty percent of his patients will not survive their bouts with Ebola.

Photo by Richard Brostrom

EMPLOYING THE TOOLS OF INFECTIOUS DISEASES RESEARCH

Gillings School alumni, students and faculty members are playing a part in the global fight against Ebola, both in West Africa's Ebola treatment centers and in the U.S.

The Ebola Information Portal (sph.unc.edu/global-health/Ebola), catalogued by the Gillings Global Gateway™ and first posted in October 2014, aggregates

information about the Ebola outbreak and preparedness efforts by local, state, federal and global agencies as well as by UNC. Naya Villarreal, MPH, program coordinator for the Gateway, says the portal serves as an excellent resource for information about the Ebola epidemic.

1976

Ebola discovered

6

Number of countries in which people have died — Liberia (4,332), Guinea (2,320), Sierra Leone (3,810), Nigeria (8), Mali (6) and U.S. (1)



The current outbreak has killed more people than all other known Ebola outbreaks combined.

10,477

Number of people known dead

MARCH 2014

First report of current Ebola outbreak in West Africa

25,263

Total number of reported cases, likely an underestimate

* Centers for Disease Control and Prevention statistics, as of April 2, 2015.



Photo by Richard Brostrom



Photo by Richard Brostrom

At left, a local imam oversees a funeral for an Ebola victim in Sierra Leone. At right, a two-year-old who died from Ebola is carried from home to the cemetery by workers in protective gear.

“Leaders at the Gillings School wanted to centralize information, not only from UNC but also from the Centers for Disease Control and Prevention (CDC), World Health Organization (WHO), and other national and international organizations,” Villarreal says.

The portal provides regular updates on Ebola efforts throughout the world and describes ways in which Gillings School faculty members, students and alumni help, both in treatment and prevention of the disease.

Alumni are in West Africa, experiencing Ebola on the front lines.

Saye Baawo, MD, who earned a Master of Science in Public Health degree in maternal and child health from the Gillings School in 2006, is assistant minister for curative services in Liberia’s Ministry of Health.

“When I was assigned to work in Margibi (Liberia) as the Ministry of Health’s technical assistant on the Ebola response, there was no organized system in place to deal with Ebola,” says Baawo. “This is because the disease was new, and many health workers were afraid to get involved in the fight.”

With the support of Baawo and colleagues, a rapid-response system was put into place. The system includes training of health staff members and community health volunteers to educate communities, counsel affected families and trace people who have come in contact with those who have the disease.

Elizabeth Whelan, PhD, who earned master’s (1987) and doctoral (1992) degrees in epidemiology from the Gillings School, is now a branch chief at the CDC.

(continued, page 20)

THE PROMISE OF PREVENTION AND CURE

The infectious diseases prevention and control research of two UNC Gillings School professors is an important component of understanding and stopping Ebola. In a study funded by the National Science Foundation, Mark D. Sobsey, PhD, Kenan Distinguished Professor in the School's environmental sciences and engineering department, studies whether the severe diarrhea of Ebola patients is contaminating local water and sewage systems.

"The results of this study will make it possible to design and implement effective onsite management systems and protocols to reduce the risks of spreading the virus from people sick with Ebola by way of their feces and sewage," Sobsey says. "This is especially important for people who work with sewage systems or who come in contact with this waste before it reaches a sewage treatment plant."

Ralph Baric, PhD, professor of epidemiology at the Gillings School and of microbiology and immunology in UNC's School of Medicine, worked



Dr. Ralph Baric



Dr. Mark Sobsey

with colleagues to develop a new genetic strain of mice that significantly will improve researchers' ability to test the efficacy of potential Ebola vaccines and treatments. A study published in *Science* magazine in October 2014 describes how Baric and colleagues solved an important challenge facing any researcher seeking to prevent or cure Ebola—namely, mice lines traditionally used for pharmacological and medical research do not develop human disease phenotypes.

"You can't look for a cure for Ebola unless you have an animal model that mimics the Ebola virus disease spectra," says Baric. "For the first time, we were able to produce a novel platform for rapidly developing new mouse models that replicate human disease for this virus, as well as other important emerging human pathogens."

—Michele Lynn



Dr. Elizabeth Whelan (second from left)



Richard Brostrom



Dr. Cynthia Cassell

At left, alumna Dr. Elizabeth Whelan (second from left) poses with members of a Centers for Disease Control and Prevention and World Health Organization team in Sierra Leone.

Above, alumni Richard Brostrom and Dr. Cynthia Cassell also are engaged in the CDC's response to Ebola in West Africa. Cassell serves, in her own capacity, on the School's Public Health Foundation board.



Clockwise from bottom left: At the Connaught Hospital in Freetown, Sierra Leone, makeshift tents are set up for screening people with Ebola symptoms; Burial teams in Sierra Leone follow a strict protocol when putting on their protective clothing; A clinic worker in Liberia sanitizes his hands at a chlorine hand-washing station.

(continued from page 18)

Whelan says that her time at the School was critical to her ability to assist with the Ebola response.

“My epidemiology degree from the Gillings School was essential to my work [in Sierra Leone],” she says. “It was gratifying to be part of the public health response to such a terrible situation. Sierra Leone was ravaged by a 14-year civil war and was just starting to rebuild when Ebola hit. The case count is still going up, health-care workers are getting sick and the health-care infrastructure is not at all close to Western standards.”

Richard Brostrom, MSPH, a 1987 alumnus and now the Pacific regional tuberculosis field medical officer in the CDC’s Division of Tuberculosis Elimination, provided assistance with infection prevention and control as well as case management.

“For some, providing assistance in West Africa for the outbreak is done with intense clinical management of Ebola cases at the Ebola treatment centers,” says Brostrom. “For most of us, though, the effort is focused on applied epidemiology, early case-finding, isolating infectious cases to minimize family exposures, and finding effective and culturally appropriate public health messaging to eliminate the traditional funerals that have fueled continued cases in West African communities. These are the basics of community-based epidemiology taught at the Gillings School, and they represent the current challenges for the global response now in full swing.”

—Michele Lynn

LESSONS LEARNED

In March and April 2015, the Gillings School's N.C. Institute for Public Health hosted a seminar series on "Ebola: Lessons Learned." Lorraine Alexander, DrPH, clinical associate professor of epidemiology and online learning specialist at the Institute, proposed the series, which drew on the expertise of David Weber, MD, professor of epidemiology at the Gillings School and of

medicine and pediatrics in UNC's School of Medicine; the School of Medicine's William Fischer, MD, assistant professor of medicine, and David Wohl, MD, associate professor of medicine; and Jennifer MacFarquhar, RN, MPH, Gillings School alumna and CDC career epidemiology field officer assigned to the N.C. Division of Public Health.



Dr. Lorraine Alexander

My teaching experience has shown that it is particularly valuable for students to hear directly from practicing health professionals about how the principles of epidemiology and public health practice are applied to real-world issues. UNC is fortunate to have faculty members and alumni with recent experience with the Ebola outbreak who are willing to share their stories. In this way, students learn how such an event has both a local and global impact. Financial support from the CDC-funded Preparedness and Emergency Response Learning Center (PERLC) at the N.C. Institute for Public Health allowed us to organize and deliver these seminars both in-person and via the Web.

[See nciph.sph.unc.edu/tws/webinars.php.]

The seminar series initially was designed as a learning opportunity for Gillings School residential and online students. However, our PERLC funding allowed us also to offer the series to the broader public health practice community across the state.

—Dr. Lorraine Alexander



Jennifer MacFarquhar

I was deployed with the International Infection Prevention team to Lagos, Nigeria, and the Emergency Operations Center in Atlanta, Ga., in support of the CDC's West Africa Ebola response. I took away some important lessons from my experience—including that creativity and flexibility in resource-poor countries are instrumental to the success of the mission; building relationships is key to having an impact upon the disease; and there is no greater fulfillment than helping one's fellow human beings, particularly during a crisis.

—Jennifer MacFarquhar



From 2009 to 2011, Dr. Dilshad Jaff planned and carried out three-week training sessions for Iraqi physicians and nurses to introduce them to emergency preparedness, teamwork, advanced trauma life support and other skills.

Dilshad Jaff

PASSIONATE ABOUT *the* SAFETY of
PATIENTS *and* HEALTH-CARE PROVIDERS
DURING WAR

For Master of Public Health candidate Dilshad Jaff, MBChB, war-zone health crises are more than 10-second sound bites on the evening news. As a Baghdad-trained physician, he was neck-deep in those crises and found them to be complicated and very real. Now solving them is his mission.

“The nature of conflict has changed, and things have become more complex,” says Jaff, who worked as primary health district manager under the Iraqi Ministry of Health from 2003 to 2008. “We can’t improve global health without looking at conflict and resolution.”

Jaff pairs his public health training with conflict-zone experiences—both as physician

and as Rotary World Peace Fellow (sponsored by the Rotary Club in Cary, N.C.)—to determine how to safeguard soldiers’ and civilians’ health needs during times of war.

Jaff’s path has been winding. After the 2003 war in Iraq, he managed the emergency room as a volunteer in a hospital without power or water. He led mental health care, health education and vaccination programs at a primary health care center in Iraq, supervising nurses and other health professionals. There, he witnessed an undeniable truth—that the lack of wartime medical infrastructure compromises public health needs. Victims of violence—the wounded and displaced—remain vulnerable,

and health workers also are endangered, he says.

He discovered a serious lack of training among in-field health professionals. As a physician with the International Committee of the Red Cross, he taught triage procedures, pharmacy management, waste management and infection control to nurses and other staff members—but he also had to educate about the most basic hygiene practices. He trained emergency workers to use ambulances properly.

After studying conflict management and peace through a Rotary Club scholarship in Thailand and Cambodia and returning to the field with the Red Cross, Jaff found that it was impossible to track attacks,



Between 2010 and 2013, Dr. Jaff regularly visited primary health-care centers in disputed areas of Iraq to support staff members. Here, at a rural center low on supplies, he devises a disposal box for used needles from an empty medicine box.

kidnappings and other incidents that put health-care workers in danger. Without that information, improving safety and infrastructure is unlikely.

“There is a big gap in knowledge because people aren’t communicating or sharing, and no one is looking at the problem,” he says. “We don’t know the number of people affected because we can’t collect the data. What we see, believe me, is the tiny tip of the iceberg.”

Jaff had the necessary negotiation, facilitation and communication skills to navigate conflict zones, but if he were to affect change, he knew he needed to improve his credentials in public health. With additional



IN HIS OWN WORDS

Prior to 2003, Saddam’s regime prohibited Kurds from holding jobs or conducting public business. We could not speak, write or read Kurdish in my city, Khanaqin, and I could not work in the city’s hospital. On April 9, 2003, when the regime collapsed and Kurdish troops arrived, Arabic workers, including medical teams, abandoned the city.

I contacted a few local nurses at the hospital’s emergency department, and we all determined to stay because the hospital was receiving wounded people. No one was in charge; there was no water or power. Over the next days, Kurdish medical personnel arrived in the city. As things became calmer, city leaders sent me to reopen and manage the only primary health care clinic in my area. Fortunately, the local community valued the clinic and had protected and kept it intact.

I worked with National Guard troops from North Carolina to provide vaccines and medicines, control outbreaks, work with refugees and teach about health promotion. The Guard was particularly supportive in transporting medicines because the roads between Baghdad and my province were chaotic and unsecured.

—Dr. Dilshad Jaff

Rotary Club support, he came to the Gillings School in 2013 to focus on women's and children's health. The specialization is important, he says, because violence now so often catches civilians in the crossfire.

His goal is to unite the objectives of public health and conflict resolution through education. Colleges of law, medicine and military science, he says, must teach students that medical missions are protected during war. Ultimately, he wants to teach local communities how to handle emergency cases, displacements and epidemic threats, as well as how to ensure that women and children have access to health care that is equal to access by men.

"This is part of my dream for the future," Jaff says. "I would love to be involved in teaching or building a connection between UNC and other organizations to address these issues. I want to use the university's considerable educational resources to bring people together. It's unacceptable to ignore the problem. Physically, we can't be everywhere, but we still can do something."

For now, Jaff, who is co-chair of the School's Student Global Health Committee, is focused upon learning all he can and informing all who will listen about the plight of those who live and provide health care in conflict zones. In spring 2014, for example, he presented

a GillingsX talk on health-care delivery in war zones. There's no doubt that his earnestness, dedication and courage will play a big part in the change to come.

—Whitney L.J. Howell

Read more about the Rotary Peace Fellowships at tinyurl.com/rotarypeacefellows.

GillingsX, the School's version of the famed Technology, Entertainment and Design (TEDx) talks, was launched in 2014 by the School's Student Global Health Committee.

(Clockwise from bottom left): Dr. Jaff (standing) presented a lecture in 2010 to a group of medical doctors and nurses in Iraq as part of a program to strengthen emergency services through training in communication and teamwork, infection control, waste management and other topics; Jaff (second from left) and other members of the 2014-2015 Student Global Health Committee, presented the GillingsX talks in April; Jaff poses with his wife and daughter at his 2009 graduation from the Rotary peace and conflict resolution program at Thailand's Chulalongkorn University.



WINNING THE CASE RACE – AGAIN!

*Health policy
and management
teams have a
long tradition of
excellence in case
competitions*



UAB
representative
Dr. Christy Lemak
presents the 2015
case competition
award to (l-r)
Keenan Jones,
Mary Winters
and Christopher
DelGrosso.

CHRIS DELGROSSO, MARY WINTERS and KEENAN JONES took the stage on Feb. 27, 2015, in Birmingham, Ala., and launched their pitch as if they were working a boardroom at one of the country's top health-care providers. Looking back, they felt, it was almost as if they had been contestants on "The Voice."

Under the lights, in front of a live audience and a panel of judges – but without the backup band — they explained their plan for developing a respiratory center at a local hospital that would employ the latest technologies and use innovative strategies to improve individualized therapy.

Then they held their collective breath while the judges conferred.

What the students heard when the judges spoke — lavish praise — made their hearts sing.

"We felt like performers on the television show, when all the judges turn their chairs around and give you more compliments than you can take in," Jones says. "We only learned later that they don't often say so many positive things."

When the dust settled, Jones, Winters and DelGrosso emerged as winners of the University of Alabama-Birmingham (UAB) 2015 Health Administration Case Competition, and they brought home a \$9,000 check to split three ways.

Winning never gets old, but the UNC Gillings School's wins in this arena are not new. The School's health policy and management department has an extraordinary track record of success at student case competitions such as these.

Jeffrey Simms, MSPH, a Gillings School alumnus and clinical assistant professor and director of professional development in the department, serves as the team members' mentor, performance critic, cheerleader, travel agent and troubleshooter.

"One of the things I most looked forward to about the competition was having the chance to work more closely with Jeffrey," DelGrosso says. "He's undoubtedly one of the biggest factors behind UNC's continued success. He's truly a great teacher, coach and friend."

"I love working with these students," Simms says. "They're so dedicated. You have to be well-organized and excellent at multitasking to maintain good grades while taking on this month-long commitment. Our students put an extensive amount of time and energy into researching the problem and developing a business proposal."



GILLINGS WINS
FIRST PRIZE
AT

UAB	NAHSE
2015	2014
2014	2012
2013	2004
2009	



GILLINGS WINS
SECOND PRIZE
AT

UAB	NAHSE
2008	2009
	2007



GILLINGS WINS
THIRD PRIZE
AT

UAB	NAHSE
2001	2010
	2006



Jeffrey Simms, clinical assistant professor of health policy and management and adviser to the case competition participants, proudly displays photographs of his winning teams. "I'm running out of shelf space," he grins. "But I'm not complaining."

The department sponsors a team in two national case competitions each year — UAB in the spring and the National Association of Health Services Executives (NAHSE) in the fall. The win at UAB last month marks the third consecutive year in which a team from the Gillings School has ranked #1 — and the sixth time in eight years a team has placed in the top three or better.

In the past seven NAHSE competitions, the Gillings School has had four top-three finishes, two of them first-place.

Students also volunteer to participate in other national case competitions and use their own financial resources to cover travel expenses. In spring 2014, a team from the School won first place at the Cleveland (Ohio) Clinic Case Competition. In spring 2015, two UNC teams were selected to participate in the final round in late April.

Competition judges often are senior-level executives from health systems around the country.

"A big benefit to students is the exposure they get to people who would be in a position to recognize their talent and hire them later on," Simms says. "They also network with their peers from programs around the country, people with whom they may work later in their careers."

LeVelton Thomas, who earned a Master of Healthcare Administration degree at the UNC Gillings School

in 2013, was on the team whose members won the NAHSE case competition in Houston in 2012. Thomas remembers the time-commitment pressure, squeezing the extra work into the weeks already packed with classes, exams, projects and personal responsibilities.

"The experience showed me that no matter what challenge is in front of me, even though I might be swamped, I can do it," says Thomas, who is in the middle of a postgraduate administrative fellowship at Duke University Health System. "Knowing the workload I can take on and still be successful has given me confidence."

"Quickly learning to function as a team serves students well," says Sandra Greene, DrPH, interim chair of health policy and management. "The problems in the health-care system today are too complex to be solved by individuals. They require multidisciplinary teams, along with good interpersonal and leadership skills. We strive to teach those skills to prepare this next generation of health-care professionals for their careers."

Simms adds that the case competitions are a great place to refine those learned skills.

"We're appreciative that these venues have given our students opportunities to shine," he says.

—Nancy Oates

PAST WINNERS

2006



Jessica Thompson, Robin Hunt, April Clark

2008



Christina Borrelli, Leslie Geiger, Robert Harmon, Dr. Ray Watts

2009



Michelle Sonia, Jessica Moore, Greg Chang

2010



Jeffrey Simms, Carmesia Straite, Justin Wright, Takeila Stringfield

2011



Emily Stallings, Andy Wilkinson, Dr. Will Ferniany, Nathan Barbo

2012



LeVelton Thomas, Jessica Johnson, Christina Lomax, Jeffrey Simms

2013



Eric Ransom, Kelly Lamb, Dr. Will Ferniany, Cayla Wigfall

2014



Callan Blough, Christopher Coughlin, Jennifer Moore, Dr. Will Ferniany

2014



Jeffrey Simms, Emilia Ndely, Camille Grant, Daniel Douthit

Contributed photos

PARTNERING WITH COMMUNITIES



Photo by Linda Kastner

Meg Landfried (center) accepts the School's 2013 Staff Excellence Award for her efforts with the capstone program. With her are Dr. Beth Moracco (left), research associate professor, and Dr. Leslie Lytle, professor and chair, both in health behavior.

STUDENTS USE CAPSTONE PROJECTS TO IMPROVE PUBLIC HEALTH



Photo by Linda Kastleman



Photo by Branson Moore

At left, Caitlin Snyder, Adébukola Oni and Hyun Namkoong meet with potential capstone community partners. At right, students in spring 2013 display their capstone accomplishments at a poster exhibition.

THROUGHOUT NORTH CAROLINA,

Master of Public Health students from the UNC Gillings School of Global Public Health are hard at work in communities—designing, reviewing and improving community-based programs to improve health outcomes statewide. They’re doing it for course credit—and they’re loving the learning process.

Since 2009, instead of writing lengthy theses, health behavior master’s students participate in the capstone program, an initiative that embeds them within a community project, giving them opportunity to gather new skills while they apply in their neighborhoods what they’ve learned in the classroom. The capstone course was the result of a comprehensive review of the Master of

Public Health program, led by Laura Linnan, ScD, professor of health behavior at the Gillings School.

Now in its sixth year, capstone accomplishes something its community partners had long wanted, says Megan Landfried, MPH, capstone program manager and health behavior lecturer.

“A program evaluation revealed that many stakeholders were ready for a new form of field training,” Landfried says. “We really wanted to strike an optimal balance between student learning and service to our community partners.”

Landfried, who participated as a student in Action-Oriented Community Diagnosis, a prior iteration of the year-long field experience, says the current program affects real change in

communities while preparing students for their own careers. That students work on projects proposed by community partners ensures that their efforts truly benefit the communities in which they work.

Each year, capstone invites 15 to 17 community partners to the School for a “pitch day,” when program leaders present their project ideas to students. Students rank the five programs in which they are most interested, and capstone leaders assign between four and six students to each of 10-12 selected projects. On average, 80 percent of students are assigned to their first choices.

STUDENT IMPACT

According to Landfried, students spend about 7.5 hours each week with their projects, working alongside

A *capstone*, the finishing stone of a structure, often refers to any crowning achievement or important event. Capstone projects are so called because they are multifaceted assignments that occur near the end of an academic program, drawing upon and expanding accumulated knowledge and expertise. Learn more at sph.unc.edu/hb/capstone.



Left to right are Phoebe Goldberg, Marcia Perritt, Laura Major, Rebecca Woodruff and Hannah Prentice-Dunn.

2012 CAPSTONE TEAM WON STATE AWARD FOR WORK ON AGING

In 2012, a Gillings School capstone team won the Marvin Collins Planning Award for Graduate Student Project Planning, presented by the North Carolina chapter of the American Planning Association.

Team members Phoebe Goldberg, Marcia Perritt, Laura Major, Rebecca Woodruff and Hannah Prentice-Dunn were given the award for their work with N.C. county government.

“These capstone students were key to the development of the 2012-2017 Orange County Master Aging Plan,” says Janice Tyler, director of the Orange County Department on Aging. “They provided the expertise to take our strategic planning to a new level. They applied skills they were learning in the classroom to this community-based planning effort. The bottom line is we couldn’t have done it without them!”

Meg Landfried, MPH, capstone program manager, says the students demonstrated unwavering commitment to their project. “Their work undoubtedly will have positive outcomes for the Department on Aging and older adults in Orange County for years to come,” she says.

program leaders and learning from these real-world mentors.

For example, PORCH (porchnc.org), a Chapel Hill-based, all-volunteer, hunger-relief organization, has worked with capstone to evaluate the efficacy of its food distribution and referral process, says program founder Debbie Horowitz. Without capstone students, the group could not have obtained that information.

“The students have provided us with a lot of data that we would have had to do without otherwise,” Horowitz says. “Are we helping the right people? Is the food we provide being used? Are we providing enough? As an all-volunteer organization, we just don’t have the time and expertise to go after that research.”

Based on capstone work, for example, PORCH leaders learned that 50 percent of the Hispanic families served by the organization don’t use peanut butter. That’s useful information, Horowitz says, because historically, volunteers have worried about not having enough of what they considered a basic nutritious food for every family. Now, they can distribute the product more efficiently.

Next year, she says, she hopes capstone students will help redesign PORCH’s referral process, improving communication and making it more seamless for social workers to help connect families to the service.

Safe Teens Think First, a program based in Cleveland County (N.C.), engaged capstone students to re-invigorate their efforts to teach safe driving skills to teens. Sharon



(Clockwise from left): Dr. Geni Eng (center), professor and capstone adviser, attends a planning session with students and their community partners; Dr. Laura Linnan, professor and adviser (far right), listens to a community partner describe a project and invite capstone students to be part of it; Meg Landfried (left) poses with capstone teaching assistants Melissa Cox (center) and Christine Agnew-Brune during a final presentation of team projects.

Schiro, PhD, program leader and assistant professor of general and acute care surgery at the UNC School of Medicine, says the program initially presented lectures about driving to between 30 and 60 teens.

Being closer to the young drivers' ages (15 and 16 years old), she says, capstone students were able to identify ways to keep teens more engaged. Not only were the teens divided into smaller groups for direct interaction, but they also were given more activities.

In the future, Schiro says, she hopes capstone students will help expand the program and take Safe Teens Think First beyond Cleveland County to the rest of North Carolina.

PROGRAM BENEFITS

Although capstone is the culminating academic element of the Master of Public Health degree, its benefits are far-reaching, both for student and community partner.

"For the community organizations, capstone students offer a fresh perspective on how each program runs," Horowitz says. "It certainly forces us to change and improve. When you have people asking questions and thinking outside the box, it will inform the changes that we make to our own programs."

Master's candidates also benefit from the capstone experience. Although time spent in Gillings School classrooms gives students a solid foundation for meeting

public health needs, working with capstone partners gives them first-hand experience and a taste of what to expect in their future jobs.

An added benefit, Schiro says, is that the program exposes students to potential employers and provides students with work references outside academia.

"Capstone is a fusion of academic instruction and real-world endeavors that prepares MPH candidates to better meet the public health needs they will encounter in their careers," Landfried says. "The program is a unique opportunity to carry out important field work while having a wonderful, supportive safety net."

—Whitney L.J. Howell



COHORT 8 (2012-2015)

The Gillings School's
**DOCTORAL
PROGRAM** in
**HEALTH
LEADERSHIP**

Celebrating
10
YEARS!



When the Gillings School's Executive Doctoral Program in Health Leadership began in 2005, students were required to carry two laptops—one contained only the software that was needed to participate in “distance learning.” Now, a decade and 62 alumni later, the program leads the way in using technology to enhance education.

“Making smart use of technology is the way to reach working professionals who are out in the field, where we need them,” says Suzanne Babich, DrPH (formerly Suzanne Havala Hobbs). “That technology allows them to continue work lives in their communities while obtaining a doctoral degree. You can't teach leadership didactically; it has to be learned experientially, in a rich environment that our virtual classroom makes possible.”

Babich is clinical professor of health policy and management and nutrition at the Gillings School.

The three-year, cohort-based, online program, which confers a Doctor of Public Health (DrPH) in health administration through the School's Department of Health Policy and Management, prepares mid-career professionals for senior-level positions in organizations that aim to improve the public's health. Students continue to work in their state or country of residence, but

gather at the Gillings School three times a year, for four days each visit.

Babich has led the program from the beginning. She was co-director in its first year and will step down from her directorship this summer. She received her own doctorate in the program's first incarnation as a traditional residential learning experience.

“The program was established to address an urgent need for leadership development among the U.S. senior public health workforce,” she says. “But mid- to senior-level working health professionals on a leadership track, who are holding demanding full-time jobs, had a difficult time interrupting their careers to come to Chapel Hill for

18 months of school.”

Babich says the Gillings School was far ahead of the curve in online education.

“We re-engineered the program, developed a competency model and then set out a whole new

curriculum, for which classes were designed from scratch to be delivered by Internet video,” she says.

She also says one unique program element is that *diversity* is a given.

“Having people from different parts of the world with different work experiences is a pillar of the program design,” Babich says. “The more unique voices we can bring to the virtual classroom, the richer everyone's learning experience is.”

[Our] faculty's expertise and engagement —and the fact that we attract exceptional students who strive to make a difference—are at the heart of the program's phenomenal success.

—DR. PAM SILBERMAN

Left to right are Dr. Sue Babich; Drs. Pam Silberman and Ned Brooks; and Dr. Brooks, leading an early online class.



Photo by Dan Sears



Photo by Linda Kastelman



Photo by Dan Sears

10 CLASSES *of* PUBLIC HEALTH LEADERS



Cohort 1 (2005-2008)



Cohort 2 (2006-2009)

Contributed photos



Cohort 3 (2007-2010)



Cohort 4 (2008-2011)



Cohort 5 (2009-2012)



Cohort 6 (2010-2013)



Cohort 7 (2011-2014)



Cohort 8 (2012-2015)



Cohort 9 (2013-2016)



Cohort 10 (2014-2017)

Students from such diverse locales as Papua New Guinea and Kazakhstan have studied in the program.

Inaugural director Ned Brooks, DrPH, retired professor of health policy and management, is proud that the program has provided inspiration and role-modeling for other universities to develop high-quality online doctoral programs. “The primary impact of our program, however, is that we produce phenomenal graduates who are making a difference throughout the world,” he says.

Lisa Koonin, DrPH, is one of those graduates. Koonin, a 2013 Gillings School alumna who is acting director of the Influenza Coordination Unit at the Centers for Disease Control and Prevention, says that the executive leadership program provided her with critical information, insights, training and opportunities to become a more effective leader.

“I use the skills and knowledge to which the program introduced me — including decision making, strategic planning, managing organizational change and leading large groups of people—over and over again, particularly in my current leadership position.”

Koonin says that her cohort was as important as members of the faculty.

“My colleagues had different life and work experiences, and they work in different sectors than I do,” she says. “Their insights and experiences rounded out the program for me and provided me with learning beyond a traditional classroom.”

Pam Silberman, DrPH, Professor of the Practice of health policy and management, has co-directed the program since January 2015 and will become director in early summer.

“Our experienced faculty members are training the next generation of health and public health leaders, who are working in any number of health-care fields — industry, clinical settings, traditional public health,” Silberman says. “The faculty’s expertise and engagement — and the fact that we attract exceptional students who strive to make a difference — are at the heart of the program’s phenomenal success.”

—Michele Lynn

WHERE ARE THEY NOW?

Graduates of the executive doctoral program in health leadership are state, national and global leaders. Among them are:

NICOLE BATES, DRPH (2008), is director of global policy and advocacy at The Bill and Melinda Gates Foundation.

SARTHAK DAS, DRPH (2012), is regional director of the Southeast Asia-Pacific at the Clinton Health Access Initiative.

LISA KOONIN, DRPH (2013), is senior adviser for the Influenza Coordination Unit at the Centers for Disease Control and Prevention.

MIKE STOBBE, DRPH (2008), is an Associated Press medical writer.

JOHN WIESMAN, DRPH (2012), is Secretary of Health for the State of Washington and adjunct assistant professor in health policy and management at the Gillings School.

MOLLIE WILLIAMS, DRPH (2014), is senior director at Planned Parenthood Federation of America.

RACHAEL WONG, DRPH (2010), is Secretary of Hawaii's Department of Health.



Top row (l-r):
Drs. Nicole Bates, Lisa
Koonin; middle row
(l-r): Drs. Mike Stobbe,
John Wiesman; bottom
row: Dr. Mollie Williams

UNC Gillings School of Global Public Health Announces



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November 2014–April 2015
SCHOOL NEWS

READ MORE AT sph.unc.edu/news.

Selected Publications

Student-led publications are marked with ★.

In an article published Oct. 17, 2014, by *Environmental Health Perspectives*, **Rebecca Fry, PhD**, ESE associate professor, and colleagues found that arsenic is associated with impaired fetal growth. In another study, published Oct. 10, in *Toxicological Sciences*, she and colleagues showed that prenatal exposure to inorganic arsenic may lead to detrimental health effects and gene reprogramming in children.

★ HB doctoral candidate **Joseph G.L. Lee, MPH**, and colleagues found that smoking-cessation interventions developed for LGBT

communities were effective but reached only small numbers of LGBT smokers. His systematic literature review was published Nov. 18, 2014, in the *American Journal of Preventive Medicine*. In a study published March 5 in *Nicotine & Tobacco Research*, Lee and colleagues found a relationship between the concentration of same-sex couples and the density of tobacco retailers in neighborhoods.

EPI faculty members **Nora Franceschini, MD**, research assistant professor, and **Wayne Rosamond, PhD**, professor, were among authors of a study finding that African-

Americans carrying a genetic sickle-cell trait face up to a two-fold risk increase for chronic kidney disease. Study results were published Nov. 13, 2014, in the *Journal of the American Medical Association*.

★ A study led by HB doctoral student **Andrew Seidenberg, MPH**, proposes to combat the use of indoor tanning by teens, employing strategies successfully used in campaigns to stop teen tobacco use. It is hoped that findings, published Nov. 6, 2014, in *American Journal of Preventive Medicine*, will help prevent teen skin cancers.



Dr. Dorothy Cilenti



Dr. N. Franceschini



Dr. Rebecca Fry



Joseph Lee



Dr. Kari North



Dr. W. Rosamond



Dr. Anna Schenck



Dr. A.M. Siega-Riz

KEY TO DEPARTMENTS

BIOS Biostatistics

EPI Epidemiology

ESE Environmental Sciences
and Engineering

HB Health Behavior

HPM Health Policy and Management

MCH Maternal and Child Health

NUTR Nutrition

PHLP Public Health Leadership Program



Dr. Jamie Bartram



Ryan Cronk



Christopher Ford



Dr. Shu Wen Ng



Dr. J. Oberlander



Dr. Barry Popkin



Dr. Angela Thrasher

An international collaboration of scientists, including EPI professor **Kari North, PhD**, conducted the largest-ever genome-wide study on body fat and body mass index (BMI), finding strong genetic links to obesity. The consortium found 89 new genetic locations across the genome that play roles in obesity, including BMI and where fat is stored in the body. The two studies were published Feb. 11 in *Nature*.

The 2015 Dietary Guidelines Advisory Committee, a group of prestigious national experts, submitted recommendations to the U.S. government in February for the purpose of informing the 2015 edition of the *Dietary Guidelines for Americans*. NUTR and EPI professor **Anna Maria Siega-Riz, PhD**, was an invited committee member. Learn more at health.gov/dietaryguidelines.

Dorothy Cilenti, DrPH, clinical assistant professor of MCH, and colleagues led a study to examine the impact of N.C.'s state budget cuts upon maternal health service use and outcomes among Medicaid-enrolled pregnant women in the state. The study was published in

the February *Journal of Public Health Management and Practice*.

Local health department staffing and services contribute to a reduction in the infant mortality rate, according to a study led by **Anna Schenck, PhD**, associate dean for public health practice and director of the School's PHLP and N.C. Institute for Public Health. The findings were published Feb. 17 in the *American Journal of Public Health*.

★ A study published March 2 in *Pediatric Obesity* acknowledges progress in efforts to fight childhood obesity but suggests that researchers closely monitor recent dietary trends among preschool children. The study, led by NUTR doctoral candidate **Christopher Ford**, was co-authored by NUTR faculty members **Barry Popkin, PhD**, Kenan Distinguished Professor, and **Shu Wen Ng, PhD**, research assistant professor.

Jonathan Oberlander, PhD, professor of HPM and of social medicine, authored a "Perspective" commentary, published Dec. 10, 2014, in *The New England Journal of Medicine*. Oberlander describes

the status of the Affordable Care Act and the challenges it will face in the Supreme Court, where the law's future could be decided.

Angela Thrasher, PhD, HB assistant professor, and colleagues found that experiencing discrimination in the health-care system is distressing for older Americans and can be bad for their health. Her study, published March 13 in the *Journal of General Internal Medicine*, found that 20 percent of respondents experienced health-care-related discrimination. Almost one-third of those developed new disabilities over the course of the four-year study period.

A World Health Organization/UNICEF report, released March 17, calls for immediate action to improve water, sanitation and hygiene (WaSH) in health-care facilities in low- and middle-income countries. Report authors are **Jamie Bartram, PhD**, director of The Water Institute at UNC and Don and Jennifer Holzworth Distinguished Professor of ESE, and **Ryan Cronk, MS**, ESE doctoral student. (See tinyurl.com/WHO-WASH-report.)



Dr. Michael Aitken



Dr. Alice Ammerman



Dr. Orlando Coronell



Dr. John Graham



Dr. Rachel Noble



Dr. Andrew Olshan

Selected Grants

UNC Lineberger Comprehensive Cancer Center and the UNC Institute for Global Health and Infectious Diseases received a \$3.7 million grant from the National Cancer Institute to study the growing worldwide cancer problem and expand UNC's efforts in Malawi to study and treat HIV-associated cancers. **Andrew Olshan, PhD**, Barbara Sorenson Hulka Distinguished Professor in Cancer Epidemiology and EPI chair, is a key researcher on the project.

The National Institute of Occupational Health and Safety awarded more than \$1 million to **Leena Nylander-French, PhD, CIH**, ESE professor of occupational and environmental health, to find biomarkers that might help determine which workers are most susceptible to diseases caused by toxins in automotive spray paints and other surface coatings. Nylander-French also was awarded a \$2.5 million National Institute of Environmental Health Sciences grant to study the relationship of indoor air pollutants, health and poverty in Rwanda.

John Graham, PhD, senior investigator at the School's N.C. Institute for Public Health and adjunct assistant professor in the PHLP, was awarded \$135,000 by the Centers for Disease Control and Prevention and the National Network of Public Health Institutes to identify and assess marketing strategies and behavioral designs in hospitals and full-service grocery stores to improve consumers' selection of healthy foods and beverages.

Orlando Coronell, PhD, assistant professor, and **Rachel Noble, PhD**, professor, both in ESE, are part of research teams awarded UNC General Administration grants totaling about \$1.68 million. With principal investigator Douglas F. Call, PhD, of N.C. State University, Coronell was awarded \$997,996 to study salinity gradient energy as a clean energy source for the state. Noble was awarded \$684,805 to develop rapid molecular diagnostics to find viral and bacterial pathogens in marine water and seafood.

A \$10 million grant from Patient-Centered Outcomes Research Institute will study stroke patients across North Carolina to determine whether longer-term post-stroke care improves daily function. The first statewide study of its kind and scope is co-led by **Wayne Rosamond, PhD**, EPI professor, and will partner the Gillings School with Wake Forest Baptist Medical Center and 51 N.C. hospitals.

Alice Ammerman, DrPH, NUTR professor and director of the UNC Center for Health Promotion and Disease Prevention, has leadership roles in two new centers established to help those on federal nutritional assistance services make healthy food choices on limited budgets. Ammerman leads the UNC team for the Duke-UNC U.S. Department of Agriculture Center for Behavioral Economics and Healthy Food Choice Research, funded by the USDA at \$1.9 million for three years. She also directs UNC's new Regional Center of Excellence in Nutrition Education and Obesity Prevention, funded by USDA for



Dr. Edwin Fisher



Dr. P. Gordon-Larsen



Dr. Jay Noren



Dr. Jennifer Smith



Dr. Jill Stewart

\$856,250. Matthew Harding, PhD, assistant professor at Duke University's Sanford School of Public Policy, and Lorelei Jones, MEd, coordinator of the nutrition education program at N.C. State University, are collaborating leaders of the two centers.

Four new projects — two designed to improve chronic disease care,

one aimed at increasing access to cervical cancer screening, and another to track land-applied biosolids – are the most recent Gillings Innovation Labs. Awardees are **Edwin Fisher, PhD**, HB professor; **Penny Gordon-Larsen, PhD**, NUTR professor; **Jennifer Smith, PhD**, associate professor of EPI; and **Jill Stewart, PhD**,

associate professor of ESE, with **Michael Aitken, PhD**, ESE professor and chair. Established in 2007 as part of the \$50 million Gillings gift, the laboratories are designed to solve public health problems and accelerate sustainable solutions across N.C. and around the world. Read more at sph.unc.edu/innovationlabs.

Other news

Jay Noren, MD, MPH, visiting clinical professor in HPM, began serving as interim senior associate dean at the School on Jan. 15. Noren

was founding dean of the University of Nebraska Medical Center's College of Public Health, president of Wayne State University (Detroit),

and most recently, provost of Khalifa University of Science, Technology and Research (Abu Dhabi, United Arab Emirates).

in MEMORIAM

William Howard Glaze, PhD
ESE professor and chair emeritus
Dec. 17, 2014

Jules Heisler, PhD, MBA
Former senior associate dean
Jan. 18, 2015

Jaroslav (Jerry) Hulka, MD
MCH professor emeritus
Nov. 24, 2014

Michael Rosenberg, MD, MPH
Adjunct professor of EPI and MCH
Dec. 8, 2014

Robert Verhalen, DrPH
Alumnus, friend and emeritus
Public Health Foundation
board member
March 26, 2015

November 2014–April 2015

AWARDS & RECOGNITIONS

READ MORE AT sph.unc.edu/news.

Selected awards and recognitions

FACULTY AND STAFF MEMBERS

Eugenia Eng, DrPH, HB professor, was inducted as an inaugural member of the Academy of Community Engagement Scholarship on Oct. 7, 2014, in Edmonton, Alberta, Canada. Eng's work in community-based participatory research is recognized internationally.

A video highlighting early childhood oral health research won first place in the 2014 Power of Oral Health Research Video Contest, sponsored by Friends of the National Institute for Dental and Craniofacial Research. Work described in the video was part of the multi-year Zero Out Early Childhood Tooth Decay (ZOE) Initiative, led by

Gary Rozier, DDS, MPH, HPM research professor.

Jason West, PhD, ESE associate professor, was one of 20 researchers in the U.S. and Canada chosen as 2015 Leopold Leadership Fellows at the Stanford University Woods Institute for the Environment. West also was recognized by the organization Clean Air Carolina at an Airkeeper Awards reception in March. His research employs computer models to understand the

exposure of the global population to outdoor air pollution.

William Miller, MD, PhD, MPH, EPI professor, is the new editor-in-chief of the journal *Sexually Transmitted Diseases*.

EPI faculty members **Gerardo Heiss, MD, PhD**, Kenan Distinguished Professor, and **Christy Avery, PhD**, assistant professor, were honored by the American Heart Association (AHA) at an annual conference in Baltimore

KEY TO DEPARTMENTS

BIOS Biostatistics
EPI Epidemiology
ESE Environmental Sciences and Engineering
HB Health Behavior
HPM Health Policy and Management
MCH Maternal and Child Health
NUTR Nutrition
PHLP Public Health Leadership Program



Winners of the School's 2015 Teaching Innovation Awards are (l-r) Dr. Brian Pence, Dr. Christine Tucker, Dr. June Stevens, Lori Evarts, Dr. John Paul, Dr. Jane Monaco and Dr. Jill Stewart. (Not pictured is Dr. Kurt Ribisl.) The awards are presented annually in February, the School's designated "Celebrate Teaching!" Month.



Dr. Christy Avery



Dr. Myron Cohen



Dr. Jo Anne Earp



Dr. Eugena Eng



Dr. Susan Ennett



Dr. Gerardo Heiss



Joanne Lee



Dr. William Miller



Dr. Gary Rozier



Dr. C. Samuel-Hodge



Dr. Karl Umble



Dr. Jason West

in March. Heiss was presented with the AHA's Epidemiology and Prevention Mentoring Award. Avery won the Sandra A. Daugherty Award for Excellence in Cardiovascular Disease or Hypertension Epidemiology.

Two of three UNC General Alumni Association Faculty Service Awards were presented to Gillings School faculty members. Awardees were **Jo Anne Earp, ScD**, HB professor and former chair, and **Myron Cohen, MD**, EPI professor and Yeargan-Bate Eminent Distinguished Professor of medicine, microbiology and immunology in the medical school.

Susan Ennett, PhD, professor and vice chair for academic affairs in HB, and **Karl Umble, PhD**, clinical assistant professor of HPM and adjunct assistant professor of HB, were honored in spring 2015 for distinguished teaching. Ennett was one of four to receive UNC's

Distinguished Teaching Award for Post-Baccalaureate Instruction. Umble was one of five to receive the Tanner Award for Excellence in Undergraduate Teaching.

Carmen Samuel-Hodge, PhD, research assistant professor of NUTR, won a University Award for the Advancement of Women. Presented by Carolina Women's Center on behalf of UNC's chancellor and provost, the award recognized Samuel-Hodge's continued commitment to the academic mentoring of women, specifically women of color pursuing doctoral degrees.

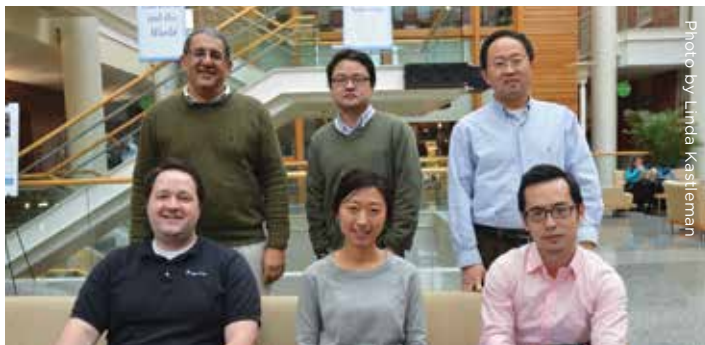
Eight faculty members — one from each academic unit at the School — were honored at a 'Celebrate Teaching!' event in February. Winners of the School's annual Teaching Innovation Awards are **Lori Evarts, MPH**, clinical assistant professor (PHLP); **Jane**

Monaco, DrPH, clinical associate professor (BIOS); **John Paul, PhD**, clinical professor (HPM); **Brian Pence, PhD**, assistant professor (EPI); **Kurt Ribisl, PhD**, professor (HB); **June Stevens, PhD**, AICR/WCRF Distinguished Professor (NUTR); **Jill Stewart, PhD**, associate professor (ESE); and **Christine Tucker, PhD**, lecturer (MCH). Evarts, Paul, Ribisl and Stewart also won in previous years.

Joanne Lee, NUTR student services manager, was selected as winner of the School's 2014 Staff Excellence Award.

STUDENTS, POSTDOCTORAL FELLOWS AND ALUMNI

Gillings School students earned more than one-third of the UNC Graduate School's 2015 Impact Awards. The awards recognize graduate students for outstanding research that benefits the people of North Carolina.



Winners of ENAR's Distinguished Student Paper Award posed in February with their advisers. On the front row (l-r) are Tom Stewart, Eunjee Lee and Lu Mao. (Not pictured is Dr. Guanhua Chen.) On the back row (l-r) are Drs. Joseph Ibrahim, Hongtu Zhu and Danyu Lin, biostatistics professors.



Heather Altman



William Chapman



Dr. Anne Justice



Dr. V. Menachery



Dr. Jessica Pepper



AnnMarie Walton

Impact awardees are **Maiko Arashiro** (ESE), **Melissa Crane** (HB), **Kim Gaetz** (EPI), **Pooja Jani** (PHLP), **Jayne Jeffries** (HB), **Mona Kilany** (HPM), **Kyle Messier** (ESE), **Justin Milner** (NUTR) and **Marie Patane Curtis** (ESE). **Messier** also won the award in 2013.

Master's students **Emilia Ndely**, **Daniel Douthit** and **Camille Grant** were members of a HPM team that claimed first prize in the 19th annual Everett V. Fox Student Case Competition, hosted in October 2014 by the National Association of Healthcare Services Executives. **Keenan Jones**,

Mary Winters and **Christopher DelGrosso**, also HPM master's students, took first place in February at the ninth annual Health Administration Case Competition, hosted by the University of Alabama at Birmingham. Read more about case competitions on page 26.

2015 IMPACT AWARD WINNERS



Four BIOS students were among 20 selected for the Distinguished Student Paper Award, presented by the Eastern North American Region (ENAR) of the International Biometric Society. They are **Guanhua Chen, PhD** (now assistant professor at Vanderbilt), **Eunjee Lee, Lu Mao** and **Thomas Stewart**. The winners were recognized at the annual ENAR spring meeting in March.

Heather Altman, MPH, 1999 HB alumna and current student in the School's Executive Doctoral Program in Health Leadership, received the UNC Institute on Aging's Gordon H. DeFries Career Development in Aging Research Award in February.

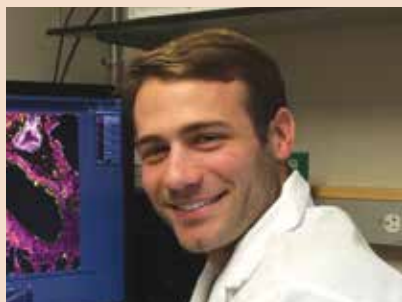
Seal the Seasons, a for-profit social enterprise co-founded by NUTR

master's student **William Chapman**, won the 2015 SECU Emerging Issues Prize for Innovation Feb. 10. Chapman and fellow founders **Daniella Uslan**, program manager at the UNC Center for Health Promotion and Disease Prevention, and **Patrick Mateer**, a UNC undergraduate, will use the \$50,000 prize to increase the amount of locally produced food in mainstream supply chains and eliminate food deserts by chopping, flash-freezing and distributing produce mainstream groceries choose not to purchase.

Anne Justice, PhD, and **Vineet Menachery, PhD**, postdoctoral fellows in EPI, received UNC's 2014 Postdoctoral Awards for Research Excellence.

Jessica Pepper, PhD, postdoctoral research associate at UNC's Lineberger Comprehensive Cancer Center and 2014 Gillings School alumna, received the Society of Behavioral Medicine's Outstanding Dissertation Award for her research on e-cigarettes.

AnnMarie Walton, MPH, BSN, Gillings School alumna and now doctoral candidate in nursing at University of Utah, was selected in fall 2014 as one of ten nurses nationwide to receive the new Breakthrough Leaders in Nursing award, presented by the *Future of Nursing: Campaign for Action*, a joint initiative of AARP and the Robert Wood Johnson Foundation.



Photos by Will Owens

TOP ROW (L-R):

Maiko Arashiro, Melissa Crane,
Kim Gaetz, Pooja Jani and
Jayne Jeffries

BOTTOM ROW (L-R):

Mona Kilany, Kyle Messier,
Justin Milner and
Marie Patane Curtis

OUR DONORS

*Dennis and Mireille Gillings
Global Public Health Fellowships*

TRAINING SCIENTISTS AT INSTITUT PASTEUR

As an undergraduate in Montreal, Mireille Gillings, PhD, became intrigued by the benefits of international scientific collaboration and data sharing. This interest increased during her time as a graduate student in the Netherlands and as a postdoctoral researcher in Bordeaux, France, and San Diego, California.

“Dynamic scientific collaboration across cultures and continents is vital in driving advances in public health,” Dr. Gillings says. “Future public health leaders will rely on this collaboration, along with skills

in setting strategy, identifying measurable targets and managing budgets. Our goal is to produce leaders who can navigate the complexity of partnering money and medicine and steer society through threats of pandemics, toward more healthy behaviors and healthy aging.”

These concepts were front and center as the *Dennis and Mireille Gillings Global Public Health Fellowships* were established. By advancing the next generation of public health leaders, the fellowships will help the UNC Gillings School achieve its mission to improve public

health, promote individual well-being and eliminate health disparities across North Carolina and around the world. The fellowships are a collaboration between UNC’s Gillings School of Global Public Health and the Pasteur Foundation, the U.S. affiliate of Institut Pasteur.

The recipients of the inaugural fellowships, Patsy Polston and Maya Nadimpalli, doctoral students in environmental sciences and engineering at UNC, were announced on Nov. 7, 2014, during a ceremony at the North Carolina Governor’s Mansion, in Raleigh, N.C.



I am proud to support these fellowships, and I wish Patsy and Maya professional success and personal fulfillment in their time at the Institut Pasteur — and throughout their careers. It's clear that we can expect great advances in the public health field from these dedicated and talented women.

—Dr. Mireille Gillings

In her professional life, Dr. Gillings is founder, president, chief executive officer and executive chair of HUYA Bioscience International, a privately-held global leader in accelerating development of biopharma innovation originating in China. Building on her commitment to international collaboration, Dr. Gillings' company is a pioneer in establishing extensive collaborations with Chinese academic institutions and commercial organizations to create value in worldwide markets for China-sourced biopharma compounds.

In addition to encouraging international exchanges of scientific ideas, Dr. Gillings' personal passions include promoting an increased role for women entrepreneurs in health care.

DR. MIREILLE GILLINGS holds a Doctor of Philosophy degree in neuroscience from Radboud University, in Nijmegen, The Netherlands. In addition to her role as founder and chief executive officer at HUYA, she was the first woman to be appointed to the board of Quintiles since the company's initial public offering (IPO), is co-founder and vice-chair of GHO Capital, and is a member of the U.S. Pasteur Foundation board.



Photo by Capelline Imaging

N.C. Governor Pat McCrory held a reception in November 2014 to honor the Pasteur Fellows and the Gillingses' gift. Left to right are Drs. Dennis and Mireille Gillings, Gov. McCrory and Tom Pike, chief executive officer of Quintiles.

DR. DENNIS B. GILLINGS, CBE, holds a Doctor of Philosophy in mathematics from the University of Exeter. For more than 15 years, he was professor of biostatistics at UNC's public health school. In 1982, he founded Quintiles, a pioneering contract research organization and Fortune 500 company, and now serves as Quintiles' executive chair. Among his many honors are being awarded the Commander of the Most Excellent Order of the British Empire (CBE) in 2004 and his appointment by U.K. Prime Minister David Cameron in 2014 as World Dementia Envoy, a position that reflects his and Mireille Gillings' continuing dedication to healthy aging for all. Dr.

Gillings' generosity toward UNC efforts in public health is longstanding. In 2008, he and Joan Gillings gave a \$50 million gift that led to the renaming of UNC's public health school.

INSTITUT PASTEUR, founded by Louis Pasteur in 1887 and based in Paris, is one of the world's leading private nonprofit centers for scientific research including immunology, molecular biology and neurosciences. The Institut's international network, established in 1891, comprises a multinational team of scientists and includes 32 research institutes on five continents.

I am extremely grateful and honored to represent the UNC Gillings School of Global Public Health as one of the inaugural recipients of the Gillings Global Public Health Fellowships. This is such an amazing opportunity! Thank you to Drs. Mireille and Dennis Gillings for their gift, the School's leaders for their support, and the Institut Pasteur for providing the postdoctoral training.

—Patsy Polston, MSPH

2015 INSTITUT PASTEUR FELLOW

PATSY POLSTON

P olston, who will earn her doctorate in 2015 in environmental sciences and engineering, with a minor in health behavior, is interested in environmental exposures, human health, vulnerable populations and preventing illness. She is confident, she says, that her time at the Institut will help refine her career trajectory.

“I want to be open to all the possibilities and enjoy the process,” she says.

Polston will study with Drs. Arnaud Fontanet and Francis Delpeyroux to identify sources of environmental contamination and routes of virus transmission to children. Some developing countries have experienced recurring outbreaks associated with polio, encephalitis virus and other enteroviruses that cause illness and death in children

younger than five. Polston’s research will examine whether children’s exposure to wastewater and sewage contributes to the transmission and spread of these viruses.

“When I think of the Institut Pasteur,” she says, “I think of two words — *discovery* and *change*. Those are the very concepts that made me want to train and work there. I want to discover something that will help people and change their lives by improving their health and quality of life. It’s that simple — *that’s my purpose!*”

With the experience, knowledge and skills she gained at the UNC Gillings School, she says, she will continue to grow as a public health professional and achieve that purpose.

“I don’t know if donors realize the impact they have on students’ lives when they give to scholarship and

fellowship programs,” Polston says. “It opens doors that otherwise would be closed due to financial constraints and gives students the chance to excel and experience new places. This gift will change my life. Because of it, I’ll be able to help many people as a result of my training, paying forward the gift I received.”

Biosolids are generated from the treatment of human waste. The primary way of managing and disposing biosolids is applying them to agricultural fields after they have been properly treated, according to U.S. Environmental Protection Agency guidelines.

Polston’s research investigates the environmental impact of this process. She has developed and validated novel biosolid indicators that can be used to track potential microbial contaminants in the environment back to the original sources of pollution.



Photo by Will Owens

The Institut Pasteur provides premier opportunities for global collaboration, a vital element of much public health research. Until recently, the Institut's leadership had invited only two postdoctoral students from across the U.S. This year, the Gillingses' gift doubled that number — and made it possible for both additional fellowships to be awarded to UNC students. What an extraordinary opportunity!

—Maya Nadimpalli, MS

2015 INSTITUT PASTEUR FELLOW

MAYA NADIMPALLI

Nadimpalli knows and appreciates the value of generous donors. As a Royster Society fellow, she was awarded five years of doctoral study at UNC, along with mentoring, professional development and peer exchange opportunities.

"Fellowship support has allowed me freedom to explore my interests, to meet passionate people and to develop national and international collaborations," she says. "The Gillingses and donors like them are able to see the 'big picture' and recognize the ripple effects their investment will have in the world."

Nadimpalli will study with Dr. Didier Guillemot at the Institut Pasteur, conducting research in a pharmacoepidemiology and disease lab that examines antibiotic-resistant infections in children in lower-income countries.

"The focus of the Institut, like that of the Gillings School, is not only to master the foundations of basic science but to translate scientific findings for the broader public," she says. "The work at the Institut will help us gain insight into many important public health questions, such as the impact of black-market antibiotics on resistant infections and the social drivers related to antibiotic misuse."

Her postdoctoral project closely resembles the focus of her dissertation. Nadimpalli conducted research in the microbiology lab of Jill Stewart, PhD, associate professor of environmental sciences and engineering at the Gillings School. There, she examined antibiotic-resistant *Staphylococcus aureus* found in the nasal passages of workers in high-density hog operations in North Carolina and

studied whether the bacteria are disseminated into the workers' household environments.

Nadimpalli will leave for the Institut Pasteur in October.

"This type of international experience is essential to the kind of work I want to do," she says. "I'm looking forward to building a personal network of global collaborators while experiencing all the opportunities available at one of the world's leading centers for scientific research."

Nadimpalli, an honors undergraduate alumna of the McGill University School of the Environment, is author of four published articles, several co-written with her doctoral advisers, Dr. Jill Stewart and UNC Gillings School alumnus Christopher Heaney, PhD, now at Johns Hopkins Bloomberg School of Public Health. Her primary research interest is the impact of human activities on the emergence and dissemination of disease.



Gillings School of Global Public Health
The University of North Carolina at Chapel Hill

75th Anniversary Celebration

APRIL 17, 2015



Special recognition to the

**PUBLIC HEALTH
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**ALUMNI ASSOCIATION'S
75TH ANNIVERSARY
COMMITTEE**



75th Anniversary Campaign Success

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\$10M
GIVEN

6
PROFESSORSHIPS
FUNDED

10
SCHOLARSHIPS
FUNDED

Thanks to everyone who participated!

SEE MORE CELEBRATION PHOTOS AT
tinyurl.com/Flickr-UNC-Gillings-75th.



Photos by Tom Fuldner

*“This gift has
given me more
joy than I ever
could have
imagined –
and it will
keep giving.”*

—DR. BARBARA K. RIMER



PLANNED GIVING is a perfect mechanism for those of us who aren't wealthy but want to leave behind something important — a statement of our priorities, passions and values. I couldn't immediately establish an endowed scholarship, but my lifetime of work would accumulate such that I could fund a scholarship at the time of my passing. When my husband and I revised our wills several years ago, we agreed that resources from my estate would be allocated for an endowed scholarship.

The Irving and Joan Rimer Scholarship is a way for me to honor my parents in a tangible and lasting manner. The gift connects our collective past to the future of young people passionate about changing the world for the better.

I am so glad that I was able to do this before my parents passed away. As people who never imagined a scholarship being named for them, they were joyfully surprised and moved by what they understood the scholarship represented — an enduring act of love, commitment and gratitude toward them and a statement of our belief in the future.

This gift has given me more joy than I ever could have imagined — and it will keep giving.

Barbara K. Rimer, DrPH
Dean and Alumni Distinguished Professor
UNC Gillings School of Global Public Health



————— To learn more about planned giving, please visit sph.unc.edu/legacy. —————



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