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GLOBAL PUBLIC HEALTH

# PUBLIC HEALTH

## IN IT TOGETHER

### PUBLIC HEALTH AND PUBLIC POLICY



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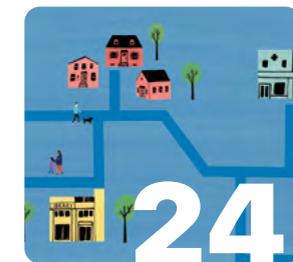
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From **Matthew Chamberlin**  
Associate Dean for Communications and Marketing

What do we mean when we talk about "health policy?" Sometimes we think of policy as a shorthand for legislation, but that is only a part of how successful policies are created and implemented. In this issue of *Carolina Public Health*, we aim to share a 360-degree overview of the inner workings of health policy. This is also the first multimedia edition of the magazine, with live links to video content. As always, thank you for your support of the Gillings School.



*“Successful public health action requires a combination of informed policy, adequate funding and supportive social norms.”*

## From the Dean

Policy takes a wide range of forms, from workplace regulations to university guidelines to federal legislation. Essentially, public policy responds to collective needs with a set of recommendations or actions meant to enhance overall well-being.

**If that goal sounds familiar, it's because public health has similar goals — and that's what we highlight in this issue of *Carolina Public Health*. Ultimately, successful public health action requires a combination of policy, funding and supportive social norms.**

I saw this three-part framework first-hand when I directed the Centers for Disease Control and Prevention's National Center for Immunization and Respiratory Diseases. When the COVID-19 pandemic arrived, I became the chief architect of the vaccine implementation program and became profoundly aware of how the success of a vaccine rollout hinges on a three-pronged approach.

First, public health research must provide the evidence that informs policy. For example, once

researchers prove that a vaccine is effective and safe for different groups of people, policymakers are able to craft official guidance around who should receive the vaccine and in what order.

Second, funding comes into play: Not everyone can afford vaccines, and some families will need the cost offset in order to participate. Additionally, it may take special initiatives to deliver vaccines directly into communities that don't have easy access to health care centers — this also costs money.

Third, successful public health efforts rely on supportive social norms. If public health education has been successful, the general population will be familiar with concepts like herd immunity — when enough people are vaccinated against a disease that it cannot easily spread — and want to be vaccinated in order to do their part to protect both loved ones and strangers.

Of course, vaccines are just one example of how policy contributes to public health. At the Gillings School, researchers also study



challenges like gun violence, teen vaping, climate change and poor mental health.

Take gun violence: People across the United States passionately disagree on some specifics, like what kind of guns should be available for purchase, but generally agree on other concepts, like the idea of safe gun storage practices as a strategy to prevent suicides and accidental deaths among children.

We already have the research that shows safe storage is effective when it comes to these two goals, and 26 states have either Safe Storage or Child Access Prevention laws (a form of policy) in place. In some places, funding also has been considered — like in Georgia, where a proposed bill with strong bipartisan support aims to waive sales tax on purchases of gun safes.

What is still lacking, however, is more education to make people aware of these policies and initiatives in order to change social norms around what responsible gun ownership looks like. A great example of this in practice is

North Carolina's NC S.A.F.E. initiative, which promotes and educates about safe storage of firearms. (Learn more at [www.ncsafe.org](http://www.ncsafe.org).)

In the end, good public policy is part of a comprehensive approach to achieving better health for all. What's more, it prepares us to be ready to respond when the next pandemic or other public health crisis arrives. That's why I'm so heartened by the range of topics you'll see Gillings School researchers exploring in the pages of this issue. 📖

**Dr. Nancy Messonnier**

*Dean and Bryson Distinguished Professor in Public Health  
UNC Gillings School of Global Public Health*

# What is our role in public health policy?



Fewer cigarettes and vapes. Cleaner air. Prevention of injury and communicable disease. Equitable access to affordable health care. These are only a few examples of ways that policy has helped us achieve a healthier world.

Public policy is an important part of the systems and structures that keep our society in good health and help us live longer, more fulfilling lives. For many citizens, the idea of policy exists in the abstract — something to be designed and managed by institutions and experts. But policy is far more than what we hear about on the news or what we learned in the *Schoolhouse Rock* song “I’m Just a Bill.” Each of us has a role to play in helping to achieve its goal: to improve well-being for as many people as possible.

Research has shown that policies are most effective when they are informed by evidence, inclusive of broad expertise, and designed for real-world implementation. If we want policies that truly work — that address our health concerns and help to reduce inequities — engagement from experts, advocates **and** the community is critical. Public policy and public health are both the work of the people, so who better to represent our interests in these areas if not ourselves?

In this issue of *Carolina Public Health*, we focus on the ways that our work at the Gillings School is intertwined with the facets of policy — informing its design, helping it evolve or responding to the downstream health effects it can create. We will highlight how public health and public policy are working together to support things like Medicaid transformation, tobacco and vaping cessation, better workplace health, climate solutions, public safety and injury prevention, behavioral health, and so much more.

Yet the relationship between public health and public policy goes beyond academia. Successful public health efforts can streamline communication and engagement between policymakers and citizens, which is why we also hope this issue can provide valuable resources for every citizen who wants to create change for better health. 🗳️



What is Health Policy? Check out our explainer video with Dr. Lindsey Haynes-Maslow at [go.unc.edu/policy-maslow](https://go.unc.edu/policy-maslow)

# Public health partnerships to support effective policy

Public health interventions contribute to better, more equitable health outcomes — from lower infant mortality rates to higher overall longevity rates — and stronger, more resilient communities. That’s why policies that support effective interventions are so critical. At the Gillings School, we’re working to inform and advance good policy — across all our departments and in partnership with governments, communities and organizations at all levels, locally and globally.

## HELPING COUNTRIES COMBAT JUNK FOOD, OBESITY

“About 60% of what adults eat and 80% of what kids eat is ultra-processed,” says **Barry Popkin, PhD**. “It’s killing us.”



Popkin, the W.R. Kenan Jr. Distinguished Professor of Nutrition, was fresh off a trip that included stops in Brazil, South Africa and Colombia — just a few of the countries that are home to global partners who work closely with Popkin and his partners in the Global Food Research Program at UNC-CH.

They conduct and share research to help countries enact policies to reduce consumption of ultra-processed, high-sugar foods and beverages that lead to obesity and health problems among their populations. They also collaborate on evaluations they fund with these global research partners.

Convincing policymakers to act can take years. For instance, Popkin had been working in Mexico for eight years before that country implemented a tax on sugary beverages. But once that happened and an evaluations article was published in BMJ, about 40 other countries followed suit over the next two years.

“Sometimes it felt like we were fighting a giant,” Popkin said. “But we’ve won.”

The group’s latest big project is in India, where for the past two years, Popkin and his Global Food Research Program partners **Lindsey Smith-**

**Taillie, PhD**, associate professor of nutrition, and **Shu Wen Ng, PhD**, professor of nutrition, worked with medical groups, academic institutions, advocates, journalists and others to increase awareness of the health impacts of junk food. It’s been a huge but worthwhile task: India is now developing new food policies that are expected to include front-of-package warning labels, joining several other countries that have enacted similar policies based on the group’s research.

The group’s international work — and their proven results — are gaining traction here in the United States. “We’re involved in all sides of trying to cut unhealthy food consumption and reduce inequities,” Popkin said. “We are really at the forefront of the globe in providing research support for people trying to do healthy food policy.”

## PUSHING FOR EQUITABLE OUTCOMES

Early in her public health career, **Lindsey Yates, PhD, MPH**, found herself working in Tarrant County, Texas, where infant mortality rates are especially high among Black pregnant women living in certain ZIP codes in the county.



“It was so discouraging to see that for Black women, even if they were educated, had good incomes and family support ... their babies were

still dying,” said Yates, an assistant professor of maternal and child health. “Something was happening at a broader policy and systemic level. It’s rooted in structural racism.”

As a health equity researcher focused on reproductive health services, maternal and child health, and implementation science, Yates works to improve outcomes through systemic change. She’s involved in a North Carolina initiative aiming to improve birth outcomes, reduce infant mortality, and improve health outcomes for children aged 0-5.

She also studies postpartum contraception, specifically when an IUD or birth control implant is inserted after a patient gives birth but before they are discharged. N.C. now covers this under Medicaid, but Yates found that patients had vastly different experiences in their contraception and counseling services — meaning there’s still work to do to improve systems and structures so they work for everyone.

N.C.’s recent expansion of Medicaid services was a big win, Yates said. But she’s keeping a wary eye on how different states are reacting to the Supreme Court’s Dobbs decision and the concerning trend of rural hospitals closing their maternity care units. Such systemic and policy changes are especially important for historically marginalized populations, Yates said: “When bodies and minds encounter a system that’s not designed with their lived experiences in mind, that leads to harm, even death.”

It’s also important for policymakers to be mindful of “vital conditions” — factors like whether water is safe to drink, whether a community is walkable, and residents’ access to fresh foods or a local hospital. “These are all things out of any one individual’s control, but they are all things we need to be healthy — and a lot of that is set by policy,” Yates said. “If we want to have all our citizens thriving in strong communities, we need to pay attention to the equity implications of every policy.”

## A PASSION PROJECT WITH POLICY RESULTS

One in four women are exposed to violence from their partners during pregnancy. **Abigail Hatcher, PhD**, associate professor of health behavior, has been trying to change that for years. Her studies of community and health interventions to prevent violence have been used to inform national law and policies in South Africa, as well as the World Health Organization’s care guidelines for maternal and child health care providers.



In South Africa, Hatcher worked on a study pairing gender training with microfinance — providing women with access to small loans that are secured through social relationships rather than high interest rates — and the team found it significantly reduced partner violence. A later clinical trial found that having nurses spend 30 to 45 minutes with women to talk about safety in relationships reduced partner violence by 48%. In her spare time, she got to know people and organizations who shared her interests in women’s safety.

“I’m curious about all the different ingredients, but I ultimately care about safer bodies and sounder minds for women,” she said. “For me, this was a passion project that happened to align with a policy window.”

A couple years later, South Africa saw a wave of student-led activism calling for more protections for women. Together with activists and civil society, Hatcher formed the Prevention Task Team to translate the evidence-base into outputs for policymakers. The team participated in multiple consensus-building events, writing parts of a declaration from a violence prevention summit that ended up being adopted by legislators. Two parts of that law harken back to Hatcher and others longstanding work — the central role of economic strengthening and health sector actors in ensuring women’s safety.

Once the law was in place, the health sector needed clear policies to put it into action with patients.

Hatcher co-wrote South Africa's national maternal health policy chapter on violence. Her team's innovations around health worker training and patient assessment in pregnancy have now been incorporated into World Health Organization guidance.

In the coming years, Hatcher plans to translate these policy and programming insights into local settings. Approaches from elsewhere hold promise for the U.S. setting, where maternal mortality is higher than peer countries, in part due to violence in pregnancy.

"It's fun as an academic to stretch my wings in an action-oriented way and feel like the work I'm putting in could impact daily lives," Hatcher said.

## DRIVING HEALTH BEHAVIOR THROUGH POLICY

**Lindsey Haynes-Maslow, PhD, MHA**, is an expert on the intersection between public health and nutrition, and the impact government policies and programs have on health behaviors. Her work focuses mainly on lower-income families' access to federal food assistance programs, a subject that first caught her interest over 15 years ago. The Affordable Care Act had not yet passed, and roughly 48 million U.S. adults lacked health insurance.



"I was looking for ways to prevent people from having to access the health care system if they couldn't afford it. When I started examining the reasons people were going to the hospital, a common theme was that their visits were tied to complications from diet-related chronic disease like diabetes and hypertension," said Haynes-Maslow, an associate professor of health policy and management and adjunct assistant professor of nutrition.

Knowing that a better diet could improve people's health and reduce the cost of care inspired Haynes-Maslow to promote policies that would enhance access to healthier foods. For six years she led N.C. State University's SNAP-Education program, managing a statewide nutrition education and

obesity prevention program. She has also worked for UNC Health, the N.C. Institute of Medicine, the state's Division of Public Health, and a nonprofit advocating for federal food and nutrition policies.

Today Haynes-Maslow teaches students, researchers and other scholars how to communicate with policymakers and the media. She advises them to know their topic and their audience and explain their work simply in a way that's relatable.

"It's easy to get frustrated by politics, but for those that are interested in policy, stay engaged and focus on playing the long game," she said.

## BREAKING NEW GROUND IN AIR QUALITY POLICY

**Barbara Turpin, PhD**, professor in the Department of Environmental Sciences and Engineering, has co-authored a major new report outlining critical tools that could drive changes to air quality policies and practices across the country.



The Clean Air Act only authorizes regulation of outdoor air quality, even though the indoor environment is where people are primarily exposed to contaminants and toxic agents — both those of indoor and outdoor origin. But as outdoor air regulations are successfully reducing pollutants, unregulated indoor air pollution is becoming more and more of a problem. So in 2022, the American Thoracic Society invited Turpin and other experts to a major workshop to investigate how indoor pollution affects outdoor air quality.

They found that building operation and indoor activities also result in emission of pollutants like methane into the atmosphere, contributing to outdoor air quality problems and climate change. The experts concluded that using filtration and controlling indoor pollution at its source can effectively reduce outdoor air pollution and identified mitigation strategies like switching from natural gas stoves to electric ones and using scent-free consumer products.

"When you burn natural gas, methane leaks out. That's a potent greenhouse gas and is really bad for the climate and contributes to ground level ozone regionally," Turpin said. "There are health benefits to not burning things in your house — especially natural gas — and there are also climate benefits."

States are required to comply with the federal Clean Air Act's health-based standard for ozone. The EPA offers states a variety of compliance options they can implement to meet the standard. Now that scientists have shown how indoor-generated air pollution contributes to ozone, indoor pollution strategies can be added to the states' options for compliance.

"Our department does a lot of policy-relevant work," Turpin said. "I'm an engineer and I do public health, and for both those fields the point is to make a difference in practice."

## POLICY PRESCRIPTION THAT MAKES A DIFFERENCE

The U.S. drug overdose crisis continues to be a major challenge. As providers and policymakers keep looking for solutions, it's important to evaluate the steps that have already been taken.

**Juan Hincapie-Castillo, PharmD, PhD**, assistant professor of

epidemiology, uses real-world data to evaluate and promote evidence-based policymaking. His focus is on improving prescribing policies so patients can safely access the medication they need to help manage their pain. "You can't do pain management without thinking about opioids," he said. "And you can't address the opioid problem with a one-size-fits-all policy solution."



Hincapie-Castillo was in pharmacy school in Florida when opioid prescribing began to peak. Wanting to make sure patients had access to safe, effective medication, he decided to pursue pharmacoepidemiology, which uses population-level research to examine medication

use, safety, and effectiveness. Hincapie-Castillo did about a dozen studies analyzing Florida's new opioid restrictions. He found that the laws, while well-intended, negatively impacted certain patients needing relief from chronic pain.

When similar legislation was introduced at the federal level, patient advocates cited his Florida studies as a cautionary tale in their meetings with legislators and staff members. The provision in question was removed from the legislation.

"I don't want my papers to just sit in journals; I want them to be used to empower patient advocacy," he said.

Today, Hincapie-Castillo is president of the board of directors for the National Pain Advocacy Center, a nonprofit working to advance the health and human rights of people living with pain.

At the Gillings School, he launched a class this semester on legal epidemiology, or how to evaluate the law's effects on health behaviors and outcomes. He hopes to give students tools to identify important issues, evaluate policies, and interpret evidence to inform and persuade policymakers to support public health.

"We cannot do public health purely for academic purposes," he said. "If our ultimate goal is to improve public health, we need to be honest — it happens through policy, though political leverage."

## ADVANCING METHODOLOGIES THAT INFORM REGULATION, POLICY

Government agencies recognize the value that academic researchers bring to the policy and regulatory process. In some cases, they put academic consulting arrangements in place so the researchers — and their expertise — are close at hand.

**Lisa LaVange, PhD**, professor and chair emerita of biostatistics, has seen that relationship work from both vantage points. As



[Continued on page 44](#)



# A new vision for Medicaid in North Carolina

State Medicaid policies have been critical in bringing health care coverage to thousands of people in North Carolina who have low incomes, manage specific health conditions or disabilities, or need long-term care.

Now, thanks to recent state legislation, N.C. has become one of the first states in the southeast to expand Medicaid coverage to thousands more. The N.C. Department of Health and Human Services (NC DHHS) has embarked on a multifaceted effort to transform how providers receive payment for that care, and they tapped the UNC Gillings School of Global Public Health to serve as the project's official independent evaluator.

The project is one of many that have developed thanks to years of partnership and data-sharing between UNC-Chapel Hill and NC DHHS, according to [Mark Holmes, PhD](#), professor of health policy and management at the Gillings School and director of the Cecil G. Sheps Center for Health Services Research.

"The partnership is a strategic benefit for everyone," he said, "and it allows us to weigh in on

the things that matter to the people of N.C. The Gillings School is providing expertise to DHHS that enables the evaluation, with involvement from other UNC partners in the Schools of Medicine, Social Work and Pharmacy."

Enacted based on policy from the N.C. General Assembly (NCGA) in 2015, the overall aim was to move health care providers participating in Medicaid from a model where they are paid per office visit (called "fee-for-service") to one where providers are paid based on the improved health outcomes of their patients. Called "managed care," this approach incentivizes the increased use of health-improvement measures, screenings and tools to keep patients well.

As part of this process, N.C. Medicaid has contracted with third-party insurance providers, such as AmeriHealth Caritas, Blue Cross and Blue

Shield, and UnitedHealthcare, who will offer pre-paid managed care health plans to Medicaid participants. These participants will then receive care through a network of doctors contracted to provide services through these managed care organizations (MCOs).

Under the guidance of federal rules, each state has control over the administration of its own Medicaid program, and nearly all of them have adopted some form of MCO system. N.C. was one of the last states to adopt the Medicaid MCO model, and according to a 2023 report from KFF, Alaska and Wyoming remain the only states without one.

The Centers for Medicare & Medicaid Services (CMS) require an external evaluator to ensure the transformation is accomplishing the goals it set out, and so the UNC-led evaluation is examining the process through four workstreams. The first is through evaluating administrative data to see what kind of trends reflect the impact of the transformation. The second is through provider surveys that seek to understand the experiences of health care professionals during the process, and the third is through a series of interviews with providers, plan leaders and participants.

The final is a pilot program called Healthy Opportunities, which is a strategic initiative to address the social determinants that play as much of a role in our health outcomes as medical factors. A portion of the funding for Medicaid transformation will be used to address transportation, nutrition, housing and interpersonal violence with the goal of reducing visits to hospitals and emergency rooms in pilot counties across the state. Based on results of the evaluation, the program has the potential to expand across all counties in N.C.

The Gillings School evaluation team includes a host of Gillings School faculty from the Department of Health Policy and Management, including Holmes, [Sandra Greene, PhD](#), [Christopher Shea, PhD](#), [Valerie Lewis, PhD](#), and [Justin Trogdon, PhD](#), as well as affiliated faculty across the country, including

adjunct faculty [Marisa Domino, PhD](#), at Arizona State University College of Health Solutions and [Paula Song, PhD](#), at the Virginia Commonwealth University College of Health Professions.

"This partnership with the state exemplifies the commitment of the Gillings School to improve public health by bridging research and real-world application," said [Kristin Reiter, PhD](#), professor and chair of health policy and management. "Faculty are using their expertise to help drive positive change for the people of N.C. through evidence-informed policy decisions."

In fall of 2023, the NCGA voted to expand Medicaid eligibility based on the provisions of the Affordable Care Act, meaning more North Carolinians are now eligible to access health care coverage through Medicaid. The expansion provides much needed stability to people who have struggled to find health care coverage or lost the temporary Medicaid benefits that were enacted under the COVID-19 public health emergency.

"Anytime you have turbulence in coverage, that can be disruptive to maintaining quality health," Holmes explained. "Part of our evaluation is also looking at how that access to coverage affects people's health outcomes."

As a whole, Holmes says the evaluation is an opportunity to understand the methods and metrics that the state is using to reshape a system that impacts the health of millions of N.C. citizens.

"This is an enormous transformation that's made up of multiple small levers, and each one has an impact," he said. "This project helps us to evaluate how changes to each lever affect participants as they navigate the health care system and then identify opportunities that improve health outcomes and keep people out of the hospital more effectively."

The UNC-led evaluation is projected to run through 2027, and the results will be released to the public after review by CMS. [📄](#)



PHOTO CREDIT: ANDREW LAM, THE DAILY TAR HEEL

FACULTY PROFILE

# Beth Moracco researches strategies to prevent violence

Beth Moracco, PhD, associate professor in the Department of Health Behavior and interim director of the UNC Injury Prevention Research Center, has studied gender-based violence for over 25 years, investigating topics like domestic violence, sexual abuse, sex trafficking, and the intersection of gun violence and gender-based violence.

Moracco was involved with women's health issues as an undergraduate student, and then she worked with the Peace Corps in the Democratic Republic of Congo. It was through her work in Congo that she first witnessed the burden that gender-based violence places on individuals and communities. She also saw firsthand that many of these issues are preventable.

After completing her Master of Public Health and doctoral degrees in health behavior, Moracco joined the faculty at the Gillings School in 2008.

Moracco's research is very applied. She has a strong interest in identifying which interventions and policies will be most effective at reducing gender-based violence. Throughout her career, Moracco has engaged with policymakers and state agencies in many capacities.

She has worked extensively with the North Carolina Administrative Office of the Courts, advising on best practices for processes in civil domestic violence cases and on how to bring trauma-informed processes into the court system.

*“Engaging with public policy is vitally important, because the more public health research informs policy, the more effective policies will be at addressing these important issues.”*

Beth Moracco, PhD

She is also a member of the N.C. Violent Death Reporting System advisory board, providing guidance on how the statewide surveillance system can be implemented and how the state can use these data to reduce the number of violent deaths.

She is also on the advisory board of the N.C. Office of Violence Prevention within the Department of Public Safety.

“Public health practitioners have both empirical and practice-based evidence that can inform effective policy,” said Moracco. “Engaging with public policy is vitally important, because the more public health research informs policy, the more effective policies will be at addressing these important issues.”

Moracco was involved with the push to have questions about intimate partner violence incorporated into routine primary care visits in N.C. While this has now become standard practice, particularly in prenatal care and emergency department settings, when it was first initiated more than 30 years ago, there were significant barriers.

“Many health care providers felt that they would know if a patient was being abused; they didn't feel equipped to counsel patients who were suffering abuse, and many were concerned that their patients would be offended by the questions,” said Moracco. “Our role was to show providers that domestic violence doesn't fit a stereotype, has far-reaching health implications for their patients and that they as providers aren't expected to do it all. They are just the first line of defense in providing the screening and, ideally, information about community-based resources.”

Moracco worked with the N.C. Coalition Against Domestic Violence to develop a standard screening tool that providers would use with patients and a process for how to connect patients with resources and counseling if they were experiencing violence at home.

More recently, Moracco's research has focused on the intersection of gun violence and gender-based violence, with a focus on the prevention of gun sales and possession among people subject to a domestic violence protective order. Policies restricting gun access to domestic abusers are included in N.C. state statutes and have broad bipartisan support, but questions remain around the implementation and enforcement of these policies. Moracco is studying the gaps in how these laws are implemented and which policy changes could reduce gun deaths in intimate partner violence settings.

“The Gillings School is a leader in collaborative research that informs policy,” said Moracco. “We have a very collaborative relationship with the state in ways that benefit everyone. I'm honored to be a part of it and excited to see more and more of our students recognizing the importance of engaging with public policy and conducting research that can inform policy.”

In July 2023, Moracco became chair of the faculty at UNC-Chapel Hill, where she represents all faculty at the University.

“It's an honor to be in this position, and I hope that I can bring the tools from my work as a researcher to inform the position and best advocate for the University and its faculty,” said Moracco. 📖



## FACULTY PROFILE

# John Staley aims to keep workers healthy

John Staley, PhD, associate professor of environmental sciences and engineering, leads many of the occupational safety and health activities at the Gillings School.

Looking back now, Staley pinpoints three pivotal moments that brought him to this work. First was realizing as a young child that he wanted to have a job that would help people. Second was having his family home destroyed by a fire when he was a teenager and, as a result, forming relationships with firefighters and learning about the hazards and health risks inherent in their work. Finally, an accident occurred at an organization where Staley was working as an environmental scientist early in his career.

The accident happened when a teenage intern was working with a hazardous chemical and almost died from inhalation of the substance. The intern hadn't been trained on how to handle the chemical and was not under supervision at the time of the accident.

"This accident really opened my eyes to the importance of workplaces having safety practices and policies, and it led me to a career focused on occupational safety and health," said Staley.

Today, Staley serves as deputy director of the North Carolina Occupational Safety and Health Education and Research Center (NC OSHERC) and co-director of the outreach core at the Carolina Center for Healthy Work Design and Worker Wellbeing.

"John Staley epitomizes the highly skilled and well-rounded occupational health and safety practitioner, educator and researcher," said [Leena Nylander-French, PhD](#), director of NC OSHERC and co-director of the pilot research programs at

*"This accident really opened my eyes to the importance of workplaces having safety practices and policies, and it led me to a career focused on occupational safety and health."*

John Staley, PhD

the Carolina Center, whom Staley describes as his mentor. "He has unique skills to make occupational health and, particularly, safety super interesting. He can explain complex contexts and issues in plain language to drive his message when working with student and worker populations. It has been such a pleasure to work with him these past four years, and I am looking forward to the new ideas he has enunciated coming to fruition. We are very fortunate to have John at the NC OSHERC, Carolina Center and at UNC-Chapel Hill educating our students and occupational health and safety practitioners, and protecting the population at-large."

The NC OSHERC team is primarily focused on educating trainees. Both masters and doctoral students in the Gillings School receive training at the center, as well as students from programs at NC State and Duke University. The center also offers continuing education to professionals.

The Carolina Center for Healthy Work Design and Worker Wellbeing is primarily focused on conducting research to identify vulnerable worker populations and develop practices, programs and policies that can help keep their workplaces healthy. Both NC OSHERC and the Carolina Center are funded by the National Institute for Occupational Safety and Health as centers for worker excellence and Total Worker Health®.

Total Worker Health® is a comprehensive approach that seeks to put practices and programs into place that improve worker health overall, and it's been a major focus of Gillings School researchers like [Laura Linnan, ScD](#), senior associate dean and professor of health behavior. It stands in contrast to the "do no harm" approach to occupational safety and health that merely aims to avoid injuries while at the workplace.

"Most of us are going to spend half of our lives or more in the workplace," said Staley. "Work itself is a social determinant of health, so opportunities to both protect workers while they are at work and do things to protect workers' overall health and well-being are a win for everyone — workers, communities and employers."

Much of Staley's work is focused on partnering with industry and various workplaces to see best practices implemented. He views himself as a bridge between the school's research activities and the workers and businesses that need the information.

The Carolina PROSPER project, which sought to promote safe practices for employees returning to work during COVID-19, is an example of this partnership. Staley and team worked with 53 N.C. businesses to identify potential pathways for disease transmission in the workplace and developed recommendations for practices and policies for businesses and workplaces that could help protect employees.

The last several years have been significant for the research community focused on worker health and safety. The landscape of work changed rapidly during the pandemic, which highlighted issues like an aging workforce, the unique vulnerabilities of gig workers, and the ways that essential workers drive society and the economy.

"The future of work is a big topic right now," said Staley. "As we strive to protect workers in the future, I hope we can continue the momentum we have experienced since 2020." 📖

# How do I talk about PUBLIC HEALTH ADVOCACY?

## A community member's guide to getting started

As public health allies, we all have a role to play in teaching, training and advocating for issues of public health importance. Uniting our voices is an effective way to support public officials in making evidence-based decisions on health policy, but navigating the process can be tricky! We asked an expert at the Gillings School for tips on how to get started.



**Ciara Zachary, PhD, MPH**

ASSISTANT PROFESSOR OF HEALTH POLICY AND MANAGEMENT

### STEP 1: IDENTIFY YOUR CAPACITY.



**Advocacy can take many forms.** Think about what skills, knowledge or experiences you can contribute — and what your capacity is to contribute them. Can you write emails or provide transportation? Are you good at organizing? Do you have a compelling story to share? Does your public health knowledge lend itself to a particular issue? Whatever your contribution may be, there is a place for it.

### STEP 2: DO YOUR HOMEWORK.



**If you are very passionate about an issue, chances are, others are, too.** Find a way to get plugged into existing groups so you can best apply your skills instead of trying to do it all or duplicating the efforts of others. Existing groups typically have defined policy goals and understand strategies that are most effective for creating change. Many are also led by those with lived experience who are most impacted by policy or lack thereof.

### STEP 3: BUILD RELATIONSHIPS.



**Relationships are key to mobilizing support.** Understand the value you can provide to others, whether that be through education, skills or storytelling. Learn who is being impacted and bring diverse voices into your coalition. Partner with those who have complimentary skills, connections or influence and can establish trusting, friendly relationships with organizations or legislators.



Check out a recent Gillings School Inclusive Excellence Community Conversation on "Public Health Advocacy: Gun Violence Prevention as a Public Health Issue," which includes Dr. Ciara Zachary! [go.unc.edu/ie-convos](https://go.unc.edu/ie-convos)

### STEP 4: SET REALISTIC EXPECTATIONS.



**Making progress on policy can happen quickly or very slowly.** Expectations that are clearly defined ensure that, when progress moves slower than anticipated, you can maintain energy in a movement, overcome challenges and address concerns of partners who provide resources.

### STEP 5: DETERMINE YOUR BRIGHT LINE.



**A bright-line standard is your way of setting boundaries.** Many aspects of policy involve compromise, so it's important to identify areas where concessions are acceptable — and where they're not.

### ADDITIONAL CONSIDERATIONS:

- **Practice self-care.** Learn when to step away and take a break before you burn out or become discouraged. Connect with friends who can encourage you, especially when setbacks happen.
- **Learn the difference between advocacy and lobbying.** While the two actions have overlapping goals, they are not always the same. Advocacy is a broad term that involves raising awareness, educating and supporting programs and policies. Lobbying involves directly urging a lawmaker to take a position on a specific piece of legislation. Many public health organizations encourage advocacy but may not permit lobbying.
- **Use the resources you have in public health.** If you're not sure where to begin, check out resources from public health organizations like the American Public Health Association and the National Association of County & City Health Officials.

**DO NOT undermine community-driven efforts.** Advocacy involves collaboration among those who are directly impacted by policy, which means it's important to ensure that you do not prioritize your own goals over those of the whole community.

# A collective effort to engage policymakers and the public

Though it should go without saying that public health is important, the reality is that it must be said — persistently and plainly — to help others grasp the complicated public health challenges facing our society, as well as the potential solutions that can improve health outcomes.

Understanding the importance of engaging with policymakers and the public about these important issues, the Association of Schools and Programs of Public Health (ASPPH) formed a communications and marketing section, which is led by **Matthew Chamberlin**, associate dean for communications and marketing at the Gillings School. This group recently released a comprehensive resource guide to help public health schools and professionals raise their voices and promote greater public awareness of their work.

It all started with one email.

In the fall of 2021, as new guidelines were continually issued in response to the COVID-19 pandemic, tensions were at a fever pitch. Masking policies, school attendance protocols, travel rules were debated in full force, and information — and misinformation — was in no short supply.

“I’ve never really felt motivated to do anything like this before,” Chamberlin said, “but I came into work that day and looked up my peers at 24 schools of public health, and I just sent them all a cold email. It basically said, ‘You don’t know me. I don’t know you. But we all have the same job, and we’re all going through the same stuff. It just seems to me that all of us together — with all of our deans, our alumni, our researchers, our students and our boards — we could do so much more together.’”

Out of the 24 people he emailed, 22 responded.

From there, this informal group of public health communicators met monthly over Zoom, with ASPPH representatives also in attendance. At first, the monthly meet-up was primarily a forum to share concerns and frustrations about what was happening in the world, but soon it became a vehicle for more. The health communicators began exchanging information and advice based on their own experiences and discussing larger issues that affected them all.

“It ended up being a really powerful network that lets us all do our jobs better,” Chamberlin said.

Over time, the group became an official section of ASPPH, with governance and subcommittees — and a rise in popularity. The section meets quarterly and now has about 100 members, representing almost every school or program of public health in the country.

***“We were just trying to figure out a way to keep public health issues in front of policymakers.”***

**Matthew Chamberlin**

One of those larger issues that kept coming up in group discussions was how to prioritize public health for legislators and policymakers. The new ASPPH section decided to create a subcommittee to develop tools that public health programs and professionals could use to increase policymakers’ and the public’s understanding of — and ultimately, support for — public health.

The ASPPH resource guide is the result of that subcommittee’s work. It contains key messaging that public health programs can use when talking about the need for ongoing investments in public health. It also includes issue briefs for policy staff, social media tags and suggested content, videos and scripts, email and newsletter copy, and other content.

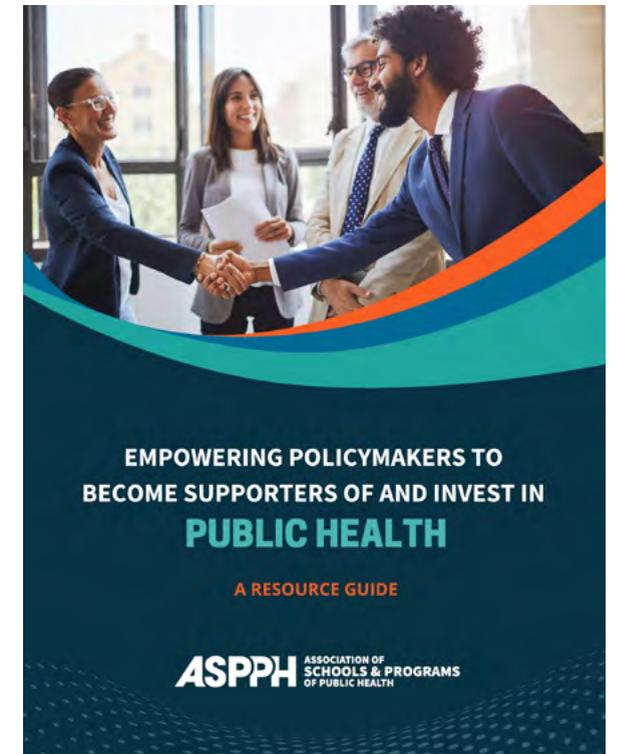
The attention paid to public health can be inconsistent, partly from cyclical budget pressures and availability of funds, and partly from officeholders changing with potentially every election. The resource guide takes this variability into account.

“We made this guide so that you can take these messages and tailor them to work well for you in your community and your state,” Chamberlin said. “We were just trying to figure out a way to keep public health issues in front of policymakers.”

Interest and reception to the guide has been positive, particularly during a session at the 2023 American Public Health Association Annual Meeting, when Chamberlin presented the guide to a standing-room only audience.

Governor Tim Walz of Minnesota recently signed a law legalizing adult-use cannabis in the state. During the 2023 legislative session (Jan-May 2023), Sarah Bjorkman, the then-communications director at the University of Minnesota’s (UMN) School of Public Health, referenced the ASPPH’s guide when developing an advocacy campaign for annual appropriation from cannabis sales tax to establish a new Center for Cannabis Research at UMN.

“We were successful in this campaign and were designated with an annual \$2.5M appropriation for the center,” Bjorkman said. “As defined within



ASPPH is empowering public health voices to shape policy and foster greater awareness. Download their comprehensive resource guide here: [bit.ly/EmpoweringPolicymakers](https://bit.ly/EmpoweringPolicymakers)

the bill, the specific charge of the center is to “investigate the effects of cannabis use on health and research other topics related to cannabis, including but not limited to prevention and treatment of substance use disorders, equity issues, education and decriminalization.”

The group has just started talking about what this year’s big project should be and will meet for a section retreat this summer in Boston to finalize those plans. The communicators also continue to look for ways to keep raising the visibility of the important work that is public health.

“Post-COVID, I think there was a little bit more awareness in the mind of the public as to what public health really means, but where do we go from here to continue to make people really understand that public health is not just vaccines or pandemics?” Chamberlin said. “You have to remain optimistic and know that the work that we do, and that all the schools do, is moving the needle.”



# Strategic research priorities position Gillings for the future

For Kari North, PhD, approaching her new role as the Gillings School's associate dean for research means going back to the Gillings School's mission: to improve public health, promote individual well-being, and eliminate health inequities across North Carolina and around the world.

Research is a core component of that mission — and while its research expertise is a key reason that the Gillings School remains the top *public* school of public health in the country, the School has big plans to raise the bar.

"We're doing amazing research, and we want to build on that," said North, who is also professor of epidemiology. One of her top priorities is putting into motion the School's new strategic

research plan, which promotes innovative, collaborative research efforts to ensure positive health outcomes both locally and globally.

North, a renowned researcher herself, knows first-hand the importance of collaboration. She leads the UNC CVD Genetic Epidemiology Computational Laboratory, a collaborative assembly of faculty members, pre- and post-doctoral fellows, and staff members spanning departments across the Carolina

*"Building collaborative teams to do public health research is the wave of the future — and nobody does this better than Carolina."*

Kari North, PhD

campus with collective expertise in both family- and population-based genetic epidemiological research.

"Building collaborative teams to do public health research is the wave of the future — and nobody does this better than Carolina," she said. "The increasing complexity of public health problems requires a diverse team of individuals to move the needle."

That's why the strategic plan is so critical as a research roadmap. More than a year in the making, the plan was spearheaded by [Elizabeth French, MA](#), associate dean for strategic initiatives, and was written by [Andy Olshan, PhD](#), the Barbara Sorenson Hulka Distinguished Professor in Cancer Epidemiology who served as interim associate dean for research from 2022 to 2024, and [Alexia Kelley, PhD](#), assistant dean for research. The plan builds on previous assessments of the School's research strengths and is based upon several months of intensive discussions among faculty, staff and students, along with a task force representing every department at the Gillings School.

"This plan focuses more on how we do research than what we do research on," said Kelley, adding that making the School's support structures more nimble will enable Gillings to be a leader at the cutting edge of new research approaches as they emerge. "We're all in this field because we want to make an impact. Our hope is to provide an inclusive and supportive research environment for faculty and students that sets them up to be successful in the science part of the work."

Olshan noted that the strategic research plan would complement the strategic plan for practice that the Gillings School implemented a couple

of years ago, with a special focus on ensuring that the School's community-based participatory research efforts involve public health researchers and practitioners alike. The plan also considers ways to promote innovation, entrepreneurship and translation of research into policy and action.

"We are a big school full of great people," he said, "so we are looking for ways to create mechanisms to enhance collaboration across the entire school."

These mechanisms include building a centralized and searchable database that researchers, students and grantees can use to find others doing similar work — again opening the door to more collaboration. Another collaborative effort is "in-house networking" — holding events where faculty with similar interests can get together, learn about each other's work and explore opportunities for collaboration.

Some of those networking events are already occurring: One such gathering, held in December, is helping to evolve the School's approach to mental and behavioral health research. Kelley and [Kristen Hassmiller Lich, PhD](#), associate professor of health policy and management, organized the networking event.

Several faculty members presented brief "flash talks" about their research interests, which included anxiety and depression among HIV-positive patients, violence or neglect in the home, substance use disorder risks, resource optimization modeling, and other issues. The wide variety of mental health topics being studied — and the variety of approaches being used to address those topics — provides a lot of runway to build strength in numbers, Lich noted at the event.

## Interdisciplinary pathways for public health impact

At the intersection of advanced data analytics and community-centric interventions, the Gillings School's interdisciplinary framework is designed to propel public health research into new realms of discovery and impact.



"There is such potential to cross these methods and strengths with other aspects of mental health and behavioral health, and to find opportunities to do more with the deep dives we've all already taken," she said.

Two major factors are driving the School's approach to its mental and behavioral health research, North said. One is the desire to devote more attention toward community-based interventions. The COVID-19 pandemic sparked the realization that while clinical care is important, so are the interventions that happen in the community — whether it's through schools, churches or other community organizations.

The other factor is the fact that Gillings School faculty are doing research on both global and local levels — and although sometimes those locations may be far away in terms of distance, their impacts might be more closely tied than one would think.

"The networking event helped bring to light that we need to think about our full umbrella of global to local, and vice versa," North said. "For example, we're doing international HIV research that might also have relevance right here in our community. We have all this great global research and local research going on, and they can inform each other and gain perspective from each other."

In addition to mental and behavioral health, the School's research office has stimulated a focus on several other urgent and emerging areas:

- **Health equity**, with the goal of determining how to alleviate the effects of racism and health disparities on health and disease, in N.C. and globally, through both action and research.
- **Climate change and air pollution** and their impacts on local and global health, and how those impacts are embodied through molecular mechanisms. The hope is to increase the visibility of Gillings research on this escalating global issue.
- The use of **Generative AI** and other technologies as the foundation for innovative research through collaborations with UNC's new School of Data Science and Society, with a focus of becoming a leader in the field.

- Making UNC-Chapel Hill a leader in **big data science** and **precision public health** by partnering with the schools of medicine, data science, and the College of Arts and Sciences to promote collaborative science that leverages strengths across the entire campus.

The strategic plan calls for establishing an infrastructure that can promote strategic priorities like these while supporting all of the School's researchers. For example, to keep up with changing federal grantmaking rules, improving research grant processing and compliance through a schoolwide administrative structure would free up researchers to focus more time and energy on their actual research work, not just their paperwork.

North also wants to work closely with new investigators to help them forge a path toward earning their first round of major funding. For mid-level researchers, she envisions a seed-fund program to help get important projects off the ground. "There are a lot of great ideas out there that just need a little funding to get them going," she said. "It's really important to me to incentivize and reward our researchers, because they are doing amazing things."

It's also important to identify and leverage new funding opportunities to sustain and grow the School's research programs, North said. Federal research funding levels can be variable year to year, and research institutions like the Gillings School are looking more and more toward private donors, foundations and other nontraditional funding sources for support.

But first, North says, she wants to listen and learn. "I have a big learning curve," she says. She plans to spend time meeting with faculty, staff, students and department leaders in each of the School's departments and across campus to build relationships and learn more about their activities, priorities and concerns.

"Overall, my goal is to create an environment for sustained excellence," North said, "with the core belief that public health has the power to transform our understanding of health and disease — that's the key to everything we do at Gillings."

# The behavioral health ecosystem

How do communities work across multiple sectors to address opioid use disorder? It takes all of us!



This is one of the culminating projects of the Inaugural Gillings School Communications Fellowship in partnership with Granville-Vance Health Department.

ILLUSTRATIONS BY KRISTEN SOLECKI

## CLINICS

Primary care and addiction medicine clinics have the capacity to provide comprehensive medication assisted treatment (MAT) with medications for opioid use disorder (MOUD), mental health services, peer groups, trauma therapy and community outreach. Opioid treatment programs are specialized addiction medicine clinics that provide methadone treatment to individuals with opioid use disorder (OUD). Depending on the individual and setting, methadone, buprenorphine, naloxone and naltrexone are the most effective MOUD therapies, alone or in combination.

## SCHOOLS

Awareness campaigns available for fifth graders and older on the dangers associated with substance use. Schools have access to health behavior specialists and counselors who work on preventative methods, such as mental health education, awareness and support for all students.

## LIBRARIES

Libraries offer a variety of resources for those impacted by OUD, including information regarding recovery clinics and potential support groups. Those who would like to access these resources can ask a librarian for more information or find it on the library's website. Libraries also provide a safe sheltered space to the public for free. Within this space, people can also access free and safe activities and materials, such as books, magazines and movies.

## HEALTH DEPARTMENTS

Local health departments (LHDs) have services for opioid treatment, including naloxone distribution, health fairs and educational workshops, and other community resources. Some also provide direct OUD treatment. They play a central role in convening multi-sector coalitions to address public health issues like OUD. Every LHD offers different services, so reach out to yours to see what they provide.

## COMMUNITY-BASED ORGANIZATIONS (CBOs)

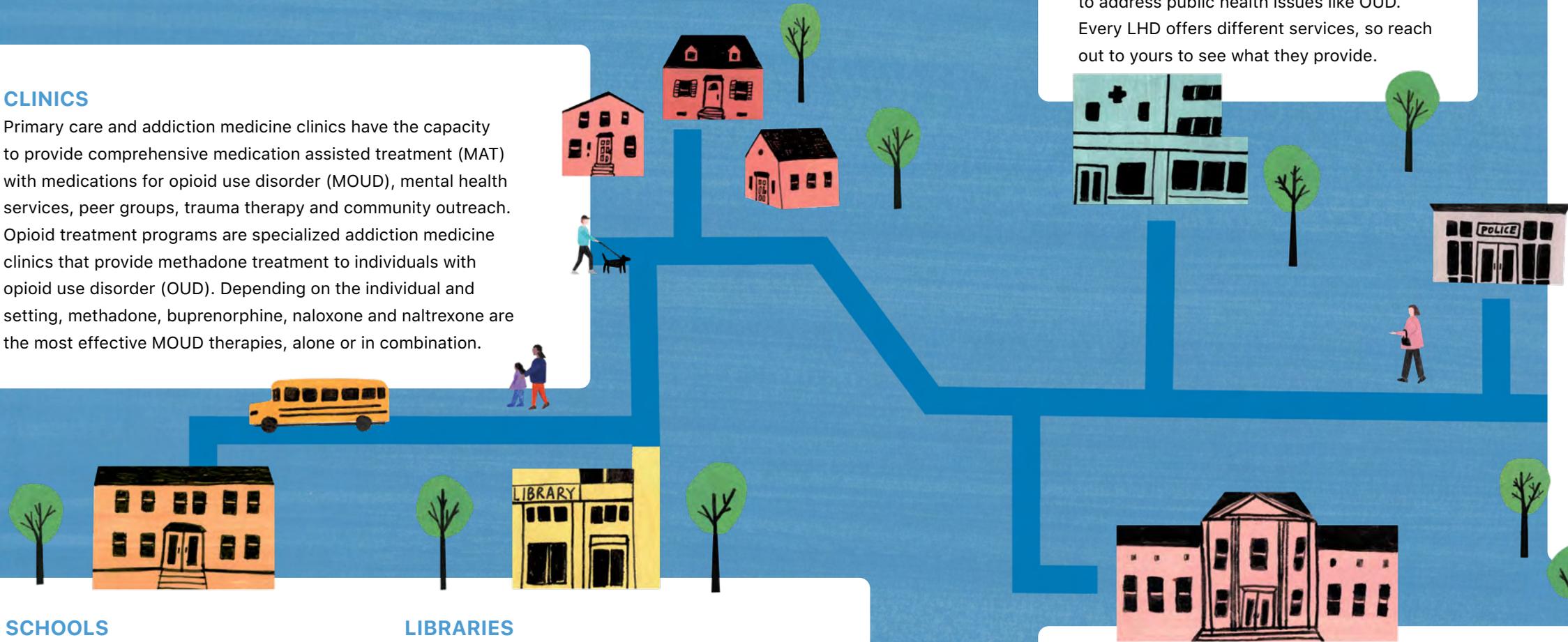
CBOs offer a varying range of services to individuals with OUD or activities to prevent OUD, including harm reduction-related activities. Many CBOs engage with community members to better understand the needs of individuals with OUD. Others lead the way in developing peer support specialists to walk alongside OUD treatment and recovery journeys. CBOs also provide essential resources to address associated social drivers of health and substance use.

## FIRST RESPONDERS

Emergency medical services and law enforcement officers often serve as front-line responders in moments of crisis around OUD. They carry naloxone and are trained to use it. Some law enforcement officers provide training and resources to local organizations, which can help more people prevent overdose deaths. First responders have a critical role in linking individuals they encounter with OUD to the care they need.

## LOCAL GOVERNMENT

Local government administration — led by the elected Board of County Commissioners at the county level or the elected City Council at the municipal level — can coordinate activities across public sector organizations, including health departments, school districts and police departments. County commissioners serve as a primary distributor of funds received in the N.C. Opioid Settlement with major drug manufacturers. This funding will be used for opioid prevention and treatment programs, including recovery support services, housing services, and job training and job skills programs. When determining the use of these funds, local elected officials should work with community members, others in local government and private agencies to collectively determine which strategies will be most effective at combating the epidemic.



# Preventing tobacco sales to minors

Juul Labs has made front-page news the past few years, as it has reached settlements with more than 40 states, plus a number of local governments and individuals over its marketing of tobacco products to minors. At this time, Juul Labs has agreed to pay almost \$3 billion in settlements.

This is the culmination of years of research and advocacy on the part of policy and public health experts, including a team of UNC-Chapel Hill researchers.

**Kurt Ribisl, PhD**, the Jo Anne Earp Distinguished Professor and chair of the Gillings School's Department of Health Behavior, has been a driving force in this research.

Ribisl began researching tobacco control in the mid-1990s. Over the years, his research portfolio has focused on illegal tobacco sales to minors and the sales and marketing of tobacco products at stores.

When North Carolina became the first state to bring a lawsuit against Juul Labs for marketing its e-cigarettes to minors, Ribisl served as an expert witness in the case. He produced an expert report about Juul Labs' marketing and sales practices and their lack of age verification.

Ribisl read more than 15,000 Juul Labs documents to compile the report, including internal emails, reports to investors and discussions among the company's founders. These documents revealed staggering evidence against Juul Labs and led to the company settling with the state before the case went to trial.

As a part of the settlement, N.C. Attorney General Josh Stein negotiated to require Juul Labs to publicly



disclose their internal emails, reports to investors and strategy documents. To date, one million documents have been added to an online depository co-managed by UNC-Chapel Hill's University Libraries and the University of California, San Francisco, with more documents being added regularly. Anyone can now search the depository and learn how the company targeted youth. This visibility into Juul Labs' tactics will help ensure that other companies cannot use the same playbook.

Among the documented issues was the fact that Juul Labs actively engaged in social media marketing despite knowing a large portion of their social media followers were underage. The company worked with influencers and celebrities, some of whom were underage, who were popular among youth. Juul Labs had also studied which flavors appeal to youth, and many of those flavors, including Fruit Medley, Mango and Mint, were used in their vape products. Similarly, they took steps to make their products more appealing to minors by offering them in the same popular colors that were available for iPhones.

The report also demonstrated that when the company became aware of stores selling Juul products to minors, it did little to prevent these sales. Even when stores were repeatedly found to sell to kids, Juul Labs didn't significantly punish them or cut off the supply of JUUL devices or refillable pods.

Policies that regulate tobacco marketing and sales practices and the enforcement of these policies are crucially important to reduce tobacco use and the associated health risks among minors.

"Policy is the most powerful lever we can pull to reduce tobacco use," said Ribisl, who is also the program leader for Cancer Prevention and Control at the UNC Lineberger Comprehensive Cancer Center. "The greatest successes we've had have come through policy changes to increase taxes on tobacco products, reduce exposure to secondhand smoke through clean indoor air laws, and restrict marketing practices and flavor usage."

Policy change doesn't happen quickly or easily, though. A large team of Carolina researchers has worked tirelessly to collect evidence that reinforces the need for tighter tobacco regulations. The team includes:



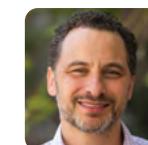
**Noel Brewer, PhD**, the Gillings Distinguished Professor in Public Health and professor in the Department of Health Behavior, researches the effects of warning labels on vapes and other tobacco products.



**Shelley Golden, PhD**, associate professor in the Department of Health Behavior, leads work on how public policies and neighborhood characteristics influence individual health behaviors and how changing retail market conditions affect tobacco use. She also studies the impact of taxes and prices on tobacco use.



**Sarah Mills, PhD**, assistant professor in the Department of Health Behavior, has conducted in-depth research on the impact of menthol bans and the disproportionate amount of advertising for menthol cigarettes in Black communities.



**Seth Noar, PhD**, the Howard & McLean Parker Distinguished Professor in the UNC Hussman School of Journalism and Media, is focused on cancer prevention via tobacco control health communications.

Despite making significant strides over the past few decades, tobacco-related health issues remain a major public health concern. Gillings School researchers continue to investigate the most effective tobacco control strategies and remain committed to partnering with policymakers to curb tobacco use and save lives. 📄

# Incentivizing change for a healthier climate

Climate scientists have emphasized the role that carbon dioxide emissions from fossil fuels like oil, coal and natural gas play in the acceleration of climate change.

Reports from the United States and abroad have all cautioned that without swift change to reduce our fossil fuel dependence, our world will continue to see worsening temperatures, rising sea levels, extreme weather, poor air quality and other harmful effects from climate change.

But even with this knowledge, these non-renewable sources of energy still make up most of what we use to heat homes, power electricity and fuel cars across the planet. Policy has been one of the major drivers in changing our economic dependence on fossil fuels, but not all policy-driven approaches have the same impact.

“For a long time, environmental policy has been shaped by this idea that the most effective way to create change is to penalize polluters,” said **Noah Kittner, PhD**, assistant professor of environmental sciences and engineering at the Gillings School, “but things like carbon taxes haven’t really gained public support in the U.S.”

Companies that provide energy in the U.S. have struggled to transition to cleaner and renewable sources, in part because systems of energy generation that rely on fossil fuels are deeply entrenched in our power grid and in the business of providing energy.



Dr. Noah Kittner

Renewable technologies like wind and solar are viable alternatives for generation, but the sun isn’t always shining, and the wind isn’t always blowing, which makes batteries a cornerstone for effective implementation. Kittner focuses his research on the ways that we can develop and incentivize the adoption of batteries and alternative energy technologies that are viable, reliable and — importantly — cost effective for consumers and the utility companies that serve them.

Right now, those technologies are still expensive to adopt. Part of Kittner’s work involves examining how policies like the recent Inflation Reduction Act use tax incentives instead of penalties to support alternative energy innovation and adoption. For consumers, that might mean getting a tax credit to install a more efficient heating pump or buy an electric vehicle. For utilities, this might mean using tax investments to adopt solar technology for generation in addition to traditional technology instead of being forced to phase out fossil fuels altogether.

Both federal and state policy incentives have helped North Carolina grow its solar energy capacity to one of the largest in the country. Without further policy incentives, solar could become a less profitable option for utilities compared to other sources of energy that increase carbon emissions, and consumers will inevitably bear the cost burden.



“Most people understand that climate change is making energy more expensive because they see it reflected in the higher bills that come from using more air conditioning or heating,” Kittner explained. “If we really want use cleaner energy options to address these concerns, then we need better energy storage on top of energy efficient appliances and solar panels that can be added to the existing grid. And part of that involves looking at the policies that make these more affordable, because it does no good if all these solutions are only available for the wealthy.”

In addition to economic inequities, climate change could also deepen place-based inequities, especially for those living in parts of the U.S. that are most vulnerable to severe weather, flooding or poor air quality. Kittner says that policy incentives that encourage the use of batteries for energy storage can improve power grid resilience, leading to fewer blackouts and quicker response times during hurricanes, heat waves and other extreme events.

When most people think “battery,” they probably think about lithium-ion batteries, which are common

in many electric vehicles, but Kittner’s research has found that even a fleet of electric school buses or delivery vehicles, when connected together, could serve as a battery to power a grid.

“For a long time, it’s been cost-prohibitive to just store electricity at every given moment, but now there are new options to use to try to avoid outages or other issues,” he said.

Renewable energy is a growing industry that policy can both support and regulate, which is why Kittner says it’s important for the public to get a big-picture perspective on the ways that policy shapes the entire energy system — not just the ones in their own households. The future holds promise for renewable energy technology, but development of these technologies is just the start. When we understand how energy affects the everyday lives of others, it gives us a broader picture of the policies that can support change to make our systems more sustainable and cost-effective and support a healthier environment for all. [📄](#)

# What should legislators know about public health?

We asked our public health communications fellows what topics they would like legislators to make a priority in 2024.



**AMMA AGYEMANG-DUAH**  
Master of Public Health second-year student in Maternal, Child and Family Health

In the fall of 2023, a family sued the dining chain Panera because their daughter died from cardiac arrest in the restaurant after consuming their “Charged Lemonade.” The drink contains 390 mg of caffeine and is also included in their “Unlimited Sip Club.” Despite the drink’s name, consumers don’t necessarily realize it contains more caffeine than most energy drinks, such as Monster and Bang. That is not the image associated with Panera.

In the spring of 2024, a TikTok influencer described a drink purchased at a gas station that is for consumers ages 21 and up but is not alcohol or marijuana. The drink contained kratom, an herbal substance with “opioid-like” effects. The video cautions others to carefully read the ingredients in items they are consuming. The company that produces the drink posted a video attempting to

discredit the claims that the drink is harmful by focusing on the natural ingredients used in the drink; the video has since been deleted. Currently, kratom is not controlled under the Controlled Substances Act, but the Drug Enforcement Administration has listed kratom as a drug and chemical of concern.

Intentionally misleading and manipulative marketing can lead vulnerable audiences into making uninformed purchases and make these potentially dangerous drinks appear more benign than they are. Stronger regulations regarding drink marketing should be in place, especially considering that target audiences for these drinks are typically adolescents and young adults. Even drinks that are marketed for consumers over age 21 can create underage drinking risks, such as Sunny D Vodka Seltzer, which leverages the brand name of a popular children’s drink.

With more stringent marketing regulations, consumers are better equipped to make informed decisions. Many preventable deaths and accidents can be avoided with these regulations in place.



**ETHAN CHUPP**  
Master of Public Health first-year student in Applied Epidemiology

The opioid crisis has devastated the United States over the past 25 years. Hundreds of thousands of Americans have died since the epidemic began, first from prescription opioids, then from heroin, and most recently from fentanyl and other synthetic substances. But a new wave of the crisis threatens to make things even worse.

Xylazine, a synthetic veterinary tranquilizer, has emerged in the drug supply — first in Puerto Rico, then in Philadelphia and other northeastern cities. Xylazine has since been spreading across the U.S. The estimated number of deaths in the U.S. involving xylazine grew more than 12 times between 2018 and 2021. But the true scale of the crisis is not known. Xylazine is not a controlled substance, and many toxicology labs do not test for it.

Xylazine presents severe health risks. Its misuse can lead to slowed breathing, drops in blood pressure and death. Xylazine also causes skin ulcers when injected, which can lead to abscesses, cellulitis and infection. Xylazine is not an opioid, but it is almost always mixed with opioids, intensifying the risk of overdose.

Beyond that, our best tools for saving lives do not work for xylazine overdoses. Naloxone, or Narcan, is a medicine that reverses the effects of opioids and restores breathing during an overdose. First responders and federal agencies recognize its life-saving capacity. However, because xylazine is not an opioid, naloxone cannot reverse an overdose. Worse yet, xylazine use disorder could be harder to treat than opioids, as the medications methadone and buprenorphine may be ineffective. Furthermore, xylazine withdrawal may be more severe than from opioids, making quitting extremely difficult.

The time is now. As the substance use crisis continues to evolve, we need new tools to protect the health of the public. Action on xylazine now could save countless lives.



**RACHEL MORROW**  
Master of Public Health second-year student in Maternal, Child and Family Health

There are many ways to improve individual health, from nutrition to exercise to vaccination to cancer screenings. However, one way that many people don’t think about supporting their individual health is through voting. Voting gives citizens a voice in policies that will affect their health and the health of those around them. Research shows that our communities are healthier when more voters can participate in the democratic process.

I recently learned about the organization Vot-ER, which develops nonpartisan civic engagement tools and programs for every corner of the health care system. They supply health care providers with tools, such as voter registration lanyards and conversation starters, which allows them to serve as a resource for anyone looking to get engaged with the democratic process and encourages patients to advocate for their health.

Health care settings are great places where people are already thinking about the importance of health and health policy and therefore can serve as a convenient place to encourage people to register to vote. In practice, using Vot-ER as a resource might look like providers at UNC Hospital wearing an additional lanyard with a QR code for patients to scan to register to vote or providers asking a patient if they are registered to vote as they ask about other behaviors, such as smoking.

Health care providers in hospitals, outpatient clinics and local health departments should consider using Vot-ER tools to add another angle to best support their patients and communities.

However, while Vot-ER is doing essential work, we don’t necessarily need a non-profit to provide this service alone. I urge policymakers to create more accessible voting registration to work alongside other voting advocacy organizations to make voting more accessible. The time is now!

Continued on page 45



# Making health more equitable

The UNC Gillings School of Global Public Health is committed to eliminating health inequities across North Carolina and around the world. Minoritized and other disadvantaged groups face increased rates of many chronic health conditions, including hypertension, diabetes and cardiovascular disease. Three new faculty members at the Gillings School are studying these issues, each tackling the problem from their own unique angle.

## ADDRESSING ADOLESCENT HYPERTENSION

**Shakia Hardy, PhD**, assistant professor of epidemiology, is focused on early intervention to prevent health inequities. Disparities appear early in life, with Black adolescents already facing increased cardiovascular risk factors compared to their peers. Hardy first encountered these issues while working as a health and nutrition specialist for a HeadStart program in rural eastern N.C.

“This experience made me acutely aware of how early in the life course low socioeconomic and minority populations can develop cardiovascular risk factors,” said Hardy. “I became passionate about investigating and intervening on the reasons why this occurred.”

Today her research efforts focus on the social and behavioral determinants of hypertension and cardiovascular disease across the life course and

Dr. Shakia Hardy



evaluating interventions that can increase health equity. She serves as co-principal investigator of the EPIPHANY study, which is a large randomized trial that seeks to prevent hypertension among Black adults.

Hardy also has a career development award from the National Heart, Lung, and Blood Institute to develop and pilot test a peer support intervention to lower blood pressure among rural, Black adolescents in the Southeast. Coming from a rural community herself, Hardy is very passionate about rural health. She is currently doing formative work to tailor this intervention to the rural environment.

## IMPROVING HEALTH FOR BLACK MEN

Despite being more socially advantaged, men have a lower healthy life expectancy compared to women. This is largely due to differences in social norms, expectations and support across health behaviors, preventative screening and medical treatment between men and women. The outcomes get even bleaker among minority groups and men who are socioeconomically disadvantaged.

**Samuel Baxter, PhD**, assistant professor of health policy and management, studies men’s health with a focus on health inequities affecting Black men. He also studies cardiovascular disease prevention, the determinants of cardiovascular disparities and place-based health disparities.

Baxter takes an asset-based approach to identify which resources are available in a community and how they can be leveraged to improve cardiovascular



Dr. Samuel Baxter

health. He also studies place-based determinants of health, and in the future he hopes to conduct research with rural communities in eastern N.C.

“In public health, we often talk about how health inequities are unjust, which is true. But it’s also important to remember that they can be changed,” said Baxter. “My research focuses on how we can change health inequities among men while ensuring our interventions don’t negatively impact the health of women or other socially defined groups. I center Black men’s health in my work because they live through structural forces that increase their risk for cardiovascular disease and premature death.”

Baxter is part of the UNC Men’s Health Program, which is based in the UNC School of Medicine. The group is preparing the 2024 N.C. Men’s Health Report Card, which is designed to be a helpful tool in conversations with the public, practitioners, researchers, health systems and the state legislature on improving men’s health.

## PROMOTING PHYSICAL ACTIVITY THROUGH POLICY

**Natalicio Serrano, PhD**, assistant professor of health behavior, is focused on creating equitable and sustainable environment and policy strategies for physical activity promotion and chronic disease prevention. His research is particularly interested in understanding and addressing issues related to neighborhood development, racial and economic segregation, gentrification, and displacement.

Serrano has been interested in this research area since growing up in an under-resourced community and losing many family members to chronic disease.

Serrano just received a Robert Wood Johnson Foundation Grant to study the impact of neighborhood development on physical activity in Latino and Black communities. The study is still in the planning stages, but research will evaluate the impact and implementation of development on certain neighborhoods in Chapel Hill and Durham. It will involve interviewing a number of key stakeholders that include residents in historic neighborhoods, community advocacy groups, representatives from government organizations like the Departments of Transportation and Housing, and researchers who have studied the impact of community development on existing neighborhoods.

“Policy has a huge impact on our lives and our health, so public health leaders have to engage with and disseminate information to policymakers,” said Serrano. “As we communicate with policymakers, it’s also really important that we’re making the necessary connections. For example, with my work many lawmakers may not care about whether or not people in a community are physically active, but if I can show them that policies that improve physical activity within a community also bring economic benefits to the community, that is an important connection to make.”



Dr. Natalicio Serrano

One student shares her international practicum experience.

# Collaborating to address food security

My name is **Leeann Ji**, and I am a second-year Master of Public Health (MPH) student at the Gillings School. I'm in the Global Health concentration and plan to graduate in Spring 2024. This past summer, I completed an MPH practicum with the United Nations Food and Agriculture Organization's Region Office of Asia and Pacific (FAORAP) in Bangkok, Thailand. It gave me the opportunity, as a student, to work directly with multiple governments on regional responses to critical issues at the intersection of water, food and health.

Though my career began in financial services, I switched to public health to chase my true passion of feeding people.

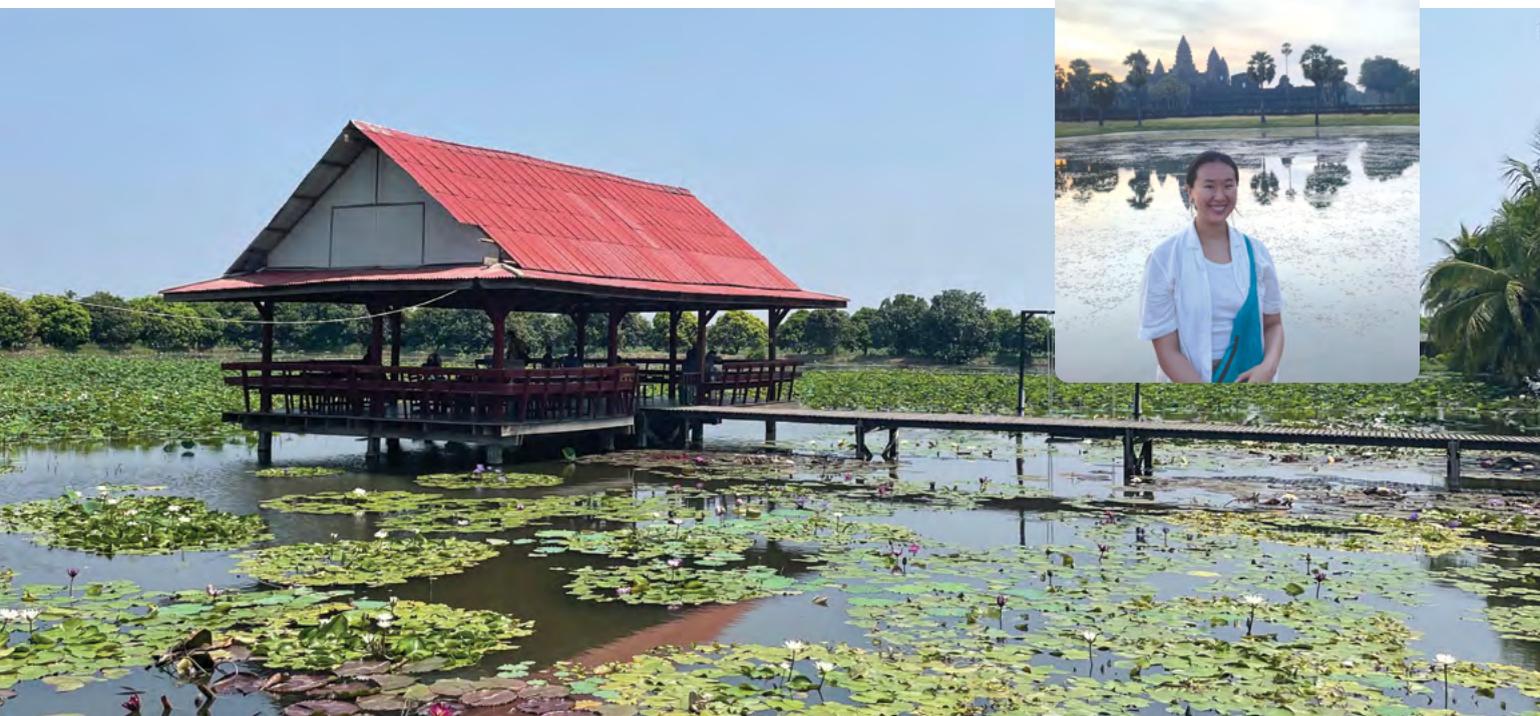
As an undergraduate, I studied international affairs and conflict resolution with the goal of

working in diplomacy and humanitarian response. It wasn't until junior year, when I began volunteering at George Washington University's urban garden that I became deeply interested in food systems.

I particularly want to help ensure people have access to food by improving the sustainability of food systems in places made vulnerable by climate change.

For my practicum, I worked FAORAP's water team to respond to three main issues: water scarcity in Southeast Asia; collaboration among the water, sanitation and hygiene and agricultural sectors of Pacific island states; and pollution of the ocean from agriculture — primarily from runoff containing fertilizers. I also published a policy report on the importance of gender equality, disability and social inclusion policies in water management projects.

MAIN Visit to a lily pad farm in Ban Saladin, showcasing the impact of water management.  
INSET Sunrise at Angkor Wat, Cambodia, followed by a tour of Angkor Thom.



LEFT At the UN Forum in Bangkok discussing climate change priorities. RIGHT In the FAO Regional Office conference room, Asia-Pacific

This practicum gave me the opportunity to work on projects for the People's Republic of China, Lao People's Democratic Republic (PDR), Indonesia, Bangladesh, Sri Lanka, Cambodia, Vietnam, Thailand and Timor-Leste. I also got to travel to Vietnam and Cambodia and eat a lot of extremely delicious (and spicy) foods!

My family is from China, and I have spent a significant amount of time in East Asian megacities; but nothing could have prepared me for the experience of day-to-day life in Bangkok, an incredibly cosmopolitan city mixing skyscrapers and megamalls with grand Buddhist temples and palaces.

I attended workshops on water accounting and allocation alongside staff of national ministries for hydropower, environment and water in Vietnam, Lao PDR, Thailand and Cambodia. Seeing these government officials engage with each other and invest time into learning new water management strategies was exciting; it felt like my undergraduate diplomacy and foreign policy dreams were coming true!

On a team made up of climate experts, oceanographers, environmental advocates and academics from different countries, I was the only team member with public health experience. Our projects focused on systems and upstream drivers of food insecurity like water scarcity and pollution, allowing me to tap into foundational MPH knowledge.

The type of work we were doing has historically suffered from a siloed approach with efforts split among the academic, government and private sectors. The "One Health" approach — which

recognizes the connections between the health of people, animals, plants and the environment — has increasingly tied together work related to public health, water and food systems.

I came to UNC knowing I wanted to do a practicum with FAO, and I found this opportunity by cold emailing people at FAO's Bangkok office. Gillings School faculty members, especially within the Water Institute, provided input on what experiences to highlight in interviews and what to expect from the process. I had a lot of financial support, from both the Gillings School and the Carolina Asia Center's Bringing Southeast Asia Home initiative, that made my practicum possible.

One of my favorite courses at the Gillings School has been **Dr. Jason West's** "Global Climate Change: Interdisciplinary Perspectives," which brought in experts to speak to our class about various climate change-related topics. This prepared me for my FAO project on ocean hypoxia and eutrophication from agricultural pollution. Additionally, the "Cultural Humility" course that all first-year global health students take really shifted my perspectives on global public health work.

For anyone considering a public health degree, even if their interests are not explicitly or traditionally public health focused, I would encourage them to take the leap. The MPH has helped me develop valuable research and critical thinking skills that make me a unique and competitive candidate in policy-oriented spaces. 📖



Jones' son Pierson, husband Vonzell and son Greyson represent their home team. Go Bills!!

STAFF PROFILE

# Ki'yonna Jones helps public health practitioners enhance their skills

The field of public health is full of professionals and policymakers who dedicate time to improving the well-being of their communities. While many have a foundation in health sciences or other professional areas, public health is a sector where practitioners often wear many hats and need to acquire new skills for the growing scope of their job duties.

The North Carolina Institute for Public Health (NCIPH) at the Gillings School supports the public health workforce by offering workforce development, and community assessment and strategy services to practitioners in North Carolina in everything from

leadership skills to equity and inclusion. **Ki'yonna Jones, MBA, MHA**, a senior training associate at NCIPH, works to develop and deliver these programs, which she says are designed to help the workforce meet 21st century challenges and become effective leaders and partners in public health.

"The public health workforce encompasses so many people," she said. "From health directors, community health workers, water plant operators, social workers — the list goes on and on!" So, it's important for all these collaborators to have a public health mindset. Now, more than ever, the ability to think at a systems level and strategically leverage relationships and resources to tackle challenges and health inequities communities face is critical. Public health workers who know how to lead and

communicate the significance of public health initiatives at every level moves the change forward.

This mindset is one that approaches health from a population-based perspective, understanding that these connections work together to promote health at a systems level that is often called "ecological." This means that individual behaviors are only one facet of our health. Policies, cultures, communities and institutions all have a role to play as well.

Through her work at NCIPH, Jones and colleagues offer members of the workforce continuing education opportunities to strengthen their foundational skills and develop that public health mindset,

The benefits, Jones says, grow exponentially with each additional practitioner who receives training—it's the ripple effect.

"When we have more people who know what it means to live in a healthy environment, they pass that knowledge along to others," she explained. "We've come to expect clean air and clean water when we walk out of the house, but that doesn't come naturally. This isn't magic; it takes a whole workforce of people who care and who strengthen the social determinants of our health."

Jones, who has master's degrees in health care administration and business administration from Pfeiffer University, said her original plan was to pursue a career in hospital administration or community development. But like many people who work in public health, she says she fell in love with it once she saw it in action. For Jones, this happened while coaching a state team through a complex challenge at a "Learning Journey" experience with the National Maternal and Child Health (MCH) Workforce Development Center, which is housed in the Gillings School.

"I realized I want to be connected to the people who were doing the work. I want to learn their context and partner by sharing cross-cutting tools and offering resources that will help impact the world around them," she said. "It felt like this was the level where real change happened."

*"We've come to expect clean air and clean water when we walk out of the house, but that doesn't come naturally. This isn't magic; it takes a whole workforce of people who care and who strengthen the social determinants of our health."*

**Ki'yonna Jones, MBA, MHA**

Jones has been with NCIPH since 2018, where she also works with UNC's Injury Prevention Research Center (IPRC) on the Vision Zero leadership institute to reduce traffic injuries and fatalities. It's a wide scope of work where new connections are always being uncovered. She enjoys being able to see public health from many different sides, ranging from the national, state and local levels, and loves connecting with practitioners through coaching where they wrestle with uncertainties, discover fresh perspectives and reflect on how their leadership impacts the change they want to see.

"When people come back to us and describe how components of a course, tool or training helped them to advance adaptive and technical challenges in their organization," she explained, "or say things like, 'In review of our budgets, I found opportunities to more equitably distributed resources' — that's what makes this job worth it."

Because NCIPH provides state-wide training, staff members can be found in many parts of N.C. Jones is currently located in Charlotte, where she lives with her spouse and two sons. In her free time, she loves to explore the local food scene or travel. 🏠



STAFF PROFILE

# Tiffany Edouard helps forge connections for Gillings School students

In the last several years, the Gillings School has been offering a broad range of student wellness events online and in-person, in part because of efforts led by Tiffany Edouard and her colleagues in the Student Affairs unit.

The demands of an academic program can place significant stress on students, which is why leadership at the Gillings School, including the Mental Health and Well-being Task Force and student-led groups like the Minority Student Caucus and the Student Government Association, have been exploring new opportunities to promote well-being. Edouard, who is the student affairs events

manager, has been at the forefront of planning and implementing programs that meet some of these student needs and provide resources, relaxation and camaraderie to the Gillings School community.

“We hear from students through feedback and event surveys and use their comments to implement projects and the programs that we think are going to best help them based on their current needs,” she explained. “For example, our ‘Well-Being Wednesdays’ events used to be virtual events during the pandemic called ‘Wind-Down Wednesdays.’ It was a place for everyone to come together and just unwind and talk with their peers. Now we have transitioned that over to ‘Well-Being Wednesdays,’ where we try to have various in-person events that are social programming but with an emphasis on

wellness. It might be a DIY trail mix bar or someone coming in to teach about Enneagram. We try to keep it relevant to whatever the students need.”

In addition to social and well-being events, Edouard and her colleagues in Student Affairs manage the logistics of many marquee academic events, including Fall and Spring commencement, Admitted Students Day, open houses, orientation, and so much more. The slate keeps the team busy throughout the year, but for Edouard, whose background is in hospitality and corporate events management, every event is an opportunity to explore new social and emotional programming that can forge connections between students.

One Gillings School event that sticks out to her is the 2023 Fall Social, where she says students came out in droves to celebrate the beginning of the semester.

“They want an opportunity to be able to gather and talk and tell everybody what they’ve done for the summer,” Edouard said. “It really speaks to the fact that social programming is important.”

“Tiffany works diligently to make sure our students are engaged in events that support their well-being,” said Charletta Sims Evans, MEd, associate dean for student affairs. “She creates events that are fun and beneficial. She has been an asset to our team and School, and her background and certification as Mental Health First Aid instructor is a plus as well.”

Edouard has been in event planning for more than a decade and came to the Gillings School two years ago by way of the UNC School of Social Work. Before joining UNC, she spent many years in the business world as an event planner — including owning her own event planning company — and says the jump from the private sector to the public sector has allowed her to enjoy new and different aspects of the process.

“Corporate events can be a little bit more cut and dry, but social events at the School are a lot more

Edouard, who loves musical theater, said she is always “counting down the days” until she can see another production on Broadway.

fun,” she said. “It’s not just about the run of show or the program that you’re putting on; it’s also about the lunch that you’re having, the decorations that are there or the music. You get to interact with students and build relationships. Whereas with general corporate events, I don’t necessarily get to build relationships with the client other than our vendors. But in a setting like the Gillings School, you get to see the students who come back to every single event or the departments that are heavily involved on campus. You get to build those relationships with those frequent fliers.”

In her personal life, Edouard loves spending time with her sister and godchildren. She is a fan of musical theater and an avid reader of non-fiction. Her number one book recommendation is *A Child Called “It”* by Dave Pelzer. Though she is a graduate of the University of Florida, she has spent most of her professional career in North Carolina, and her first job as a corporate event planner for Blue Cross and Blue Shield even allowed her to work in all 100 N.C. counties.

She says the transition to higher education has been a fulfilling one, and she loves the team in Student Affairs.

“Working here made me realize there’s a space for any profession on a college campus,” she said. “And the work of the student affairs office is so embedded in the day-to-day at Gillings that it can be easy to forget we’re there. Our work is done to enrich the student experience, and that’s really invaluable for the Gillings School.”

# THE PIVOT

## Dr. Bahby Banks builds capacity, encourages innovation and fosters change

### What's your role in public health?

I am the founder and CEO of Pillar Consulting, a global research consulting firm headquartered in Durham. For the past ten years, we've partnered with nonprofit, academic, corporate and philanthropic organizations to provide consultation on the development, implementation, evaluation and dissemination of their efforts.

Our work is rooted in equity, and we offer a portfolio of services including contract management, needs assessments, equity audits, employee surveys and membership surveys.

I currently serve as the co-chair of the Health and Human Services Committee for Leadership North Carolina and recently was nominated for membership to the N.C. Institute of Medicine. And of course, I'm still connected to the Gillings School, serving as an adjunct assistant professor in public health leadership and practice.

### Can you describe your focus area in one sentence?

I guess that "sentence" would be our mission at Pillar Consulting: Build capacity, encourage innovation and foster change.

### What brought you to public health?

I spent much of my childhood volunteering with my mother at local community events and saw this work as a responsibility. A duty. It was meaningful and rewarding in so many ways. My mother learned this responsibility from her mother, and her mother learned it from her mother.

In fact, my great-grandmother and great-grandfather built the first Black-owned convalescent center in Miami, Florida, in the 1930s because no one else would serve Black people. Imagine that. A carpenter and midwife with little to no resources decided they could meet this need. The City of Miami dedicated a building, the Rosie Lee Wesley Health Center, in my great-grandmother's honor in 1990.

My mother, Dorothy Gaines Banks, served (and created) community everywhere we lived as a military family and ultimately went on to found the First Coast Black Nurses Association in Jacksonville, Fla., after my father retired from the Air Force.



Clover and Mango exploring the coast on one of their many road trips.

For more Gillings stories of impact, discovery and surprise in public health:

- **The Pivot articles:** [sph.unc.edu/comm/the-pivot](https://sph.unc.edu/comm/the-pivot)
- **The Pivot podcast:** Search "pivot gillings" on your favorite podcast app



Dr. Bahby Banks soaring high atop Table Mountain in Cape Town, South Africa. She's traveled to countries on five of the seven continents.

That's my foundation. That's our legacy.

I chose to major in biology/pre-medicine at Florida A&M University with aspirations of becoming a physician. While I loved science, medicine wasn't the fit for me; I was in search of a career that would afford an opportunity to create and engage with the very communities I used to serve with my mom.

Lo and behold, that career was public health. So, I began my "formal" public health training at Boston University School of Public Health, where I earned a Master of Public Health degree in epidemiology and biostatistics. Next, I came to the Gillings School to pursue a doctorate in health behavior.

### Can you describe a time when you have pivoted in your public health career?

When the COVID-19 pandemic was in full swing, I created a public health campaign, Not A Host™ (NAH), that has reached more than 500,000 people. The Pillar team already led education, instructional design and curriculum design in the virtual space long before the pandemic, but this form of engagement was amplified during COVID-19.

In developing the #NAH Junior Ambassador STEM and Media Engagement training, it was

important to our team to equip youth with the knowledge and tools to understand root causes, social determinants of health, medical distrust, informed decision-making, mass communication, health messaging, health literacy and COVID-19.

In 2022, the Pillar team led bilingual virtual educational sessions titled "Drop-in Hours" to provide a forum for the community to stay abreast of the frequent changes that happened throughout the COVID-19 pandemic. We are a multilingual, multigenerational team, and this opportunity served as a way to leverage our training and expertise in an innovative way.

Last — but certainly not least — we were invited to partner with AfroPunk as part of their Sound Therapy Sessions in Los Angeles. So, in brief, the pandemic, while very tragic and painful, offered our team an opportunity to innovate with and serve the most marginalized in our communities.

### Who are you when you're at home?

I'm Dorothy's child. I am a free, loving spirit. I love dancing and playing drums. You likely will catch me doing either, or both, of these things at home. I'm also a pup mom to two very silly cocker spaniels, Clover and Mango, who keep me on my toes. 🐾

# Meet the new Department of PHLP

The Gillings School has launched a new Department of Public Health Leadership and Practice (PHLP). This department will unite two current units, the Public Health Leadership Program and the North Carolina Institute for Public Health (NCIPH), with the goal of strengthening and elevating the scholarship of leadership and practice.

The new department will:

- Continue training students in the Master of Public Health (MPH) degree concentrations of place-based health (a joint degree with UNC Asheville), population health for clinicians, leadership in practice and global health;
- Continue offering certificates in global health, field epidemiology and public health leadership;
- Jointly offer the Executive Doctor of Public Health (DrPH) degree in health leadership with the Department of Health Policy and Management in 2025; and
- Continue and expand the work of NCIPH, with its mission to “collaboratively lead and foster innovative solutions to public health challenges in North Carolina and beyond” by “creating systems, policies and programs that work for all.” NCIPH will continue its current work and expand to be the platform for implementing the priority initiatives within the School’s new practice strategic plan.

**Amy Joy Lanou, PhD**, the new director of NCIPH and professor in PHLP, brings extensive experience through her long-time work with the N.C. Center for Health and Wellness at UNC Asheville (UNCA) and the Mountain Area Health Education Center in Western N.C. Lanou was a tenured professor of nutrition in UNCA’s Department of Health and Wellness and served as chair from July 2014 to

January 2020. She also served as the UNCA lead for the joint MPH concentration in place-based health.

In February, **Vaughn Upshaw, DrPH, EdD, MPH**, was named chair of the PHLP department. Upshaw came to Carolina in 1996. Her career has been spent supporting leaders and decision-makers who work to improve quality of life in their communities. Most recently, she led the MPH concentration in Leadership in Practice will continue to direct the Public Health Leadership Certificate program.

“I am honored to serve as chair of PHLP at Gillings,” said Upshaw. “By combining the practice-facing initiatives at NCIPH with academic programs in the School, we are positioned to connect what we know from research with what actually works in practice to improve the health of communities in our state and around the world.”

Please join the Gillings School community in celebrating this important milestone! 📣

Dr. Vaughn Upshaw was named chair of the PHLP department.



## Empowering health through nutrition

Just shy of two hours away from Chapel Hill, the former textile town of Kannapolis is home to a state-of-the-art research center where Gillings School faculty, along with colleagues from across UNC, are pushing the frontier of nutrition science.

At the **UNC Nutrition Research Institute (NRI)**, researchers are developing and applying innovative methods to study disease risk factors and the role of nutrients in preventing disease, diet-related health behaviors, the effects of gene-nutrient interactions, and how genetics and the environment influence disease outcomes. Much of their work informs national nutritional recommendations and guidelines

Most of the NRI’s researchers are Gillings School faculty members, mainly in the Department of Nutrition; several hold appointments in the School of Social Work and the departments of psychology and neuroscience. The NRI’s research strengths include precision nutrition, environmental exposures, prenatal alcohol exposure, brain development, cancer metabolism, obesity prevention and treatment, and equity-based community research.

“The NRI has outstanding faculty who are doing a wide range of work — from basic sciences to interventions to environmental exposures — in a highly interdisciplinary manner,” said **Saame “Raz” Shaikh, PhD**, professor and chair of nutrition. “There is such a broad range of expertise there, from basic molecular science to dietary, clinical and behavioral interventions.”

The NRI’s interim director is **Deborah F. Tate, PhD**, professor of nutrition and health behavior and internationally recognized behavioral scientist who studies precision nutrition, obesity, diabetes prevention and digital health interventions. She is co-principal investigator of the National Institutes of Health’s Nutrition for Precision Health UNC Clinical Center and directs the Communication for Health Applications and Interventions Core.



Being located in Kannapolis gives the NRI access to diverse patient populations and provides an opportunity to engage in community-based research. To complement its leadership in basic science and laboratory research, the NRI is expanding its translational science work with large clinical studies and community trials.

These trials and studies use innovative tools and techniques, including a special chamber to measure 24-hour metabolism and a mobile nutrition research unit that takes researchers into the community, removing transportation or other barriers that may prevent people from participating in clinical research.

“The translational research potential at the NRI is huge. I hope to continue our expansion in this area so we are leading cutting-edge nutrition and metabolism research both in our labs and in our communities,” Tate said.

A core tenet at the NRI is precision nutrition, or studying why metabolism and nutrition requirements differ between people. Founding director **Steven H. Zeisel, MD, PhD**, now retired, is a renowned expert in precision nutrition and set out to make the NRI a global leader in the field, and his work informed choline intake recommendations for many populations. Zeisel founded SNP Therapeutics, a company built on his decades of research that enables new treatment options to improve human health.

Precision nutrition does not mean building customized diets for specific individuals. Rather, it examines population groups and subgroups that vary in genetics, microbiomes, age, gender and other factors to learn how different nutritional requirements and responses affect individual nutritional needs. The ultimate goal is improving human development and lessening the impacts of aging and diet-related disease.

To learn more about the NRI, read its 2023 Impact Report on [uncnri.org](https://www.uncnri.org).

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former director of the Office of Biostatistics in the Center for Drug Evaluation and Research (CDER), which regulates over-the-counter and prescription drugs, she established one of the center's earliest consulting arrangements (Interagency Personnel Act agreements, or IPAs) with a university researcher. Once LaVange returned to Gillings in 2018, she became an IPA consultant herself.

As a statistical advisor to the Office of the CDER Director, LaVange did not participate in individual drug approval decisions. She advised on statistical methods for drug testing and leveraged her academic expertise to identify ways in which those innovative methodologies could impact future drug development and regulatory oversight. She also worked with the International Council for Harmonisation of Technical Requirements for Pharmaceuticals for Human Use (ICH), a group of regulatory bodies from countries around the world that works with industry to make new treatments available to consumers more quickly while maintaining scientific rigor and patient safety.

"I was there to advise as an academic, but I was also able to draw on my experience working inside FDA," LaVange said.

The Food and Drug Administration relies on academic experts from both public and private universities to provide continuing education opportunities for agency reviewers and keep government officials abreast of cutting-edge research methods in academia. A programmatic example where such methods can have an impact is FDA's Complex Innovative Trial Design (CID) Paired Meeting Program, which facilitates the use of complex clinical trial designs in drug development. LaVange was instrumental in launching this program while at FDA and continued to advise on its implementation after returning to academia.

Now retired, LaVange no longer consults with CDER, but she does stay engaged through FDA public meeting participation and other activities, and the FDA continues to lean on the department's scientific experts for research and guidance through other

research agreements. "Although biostatisticians tend to focus on methodological research," said LaVange, "applications of those methods to real-world problems are just as important. Drug development and regulatory oversight are examples where those applications impact policymaking and, ultimately, public health."

### 'PRACADEMIC' LEADERSHIP TO HELP MEET CRIME VICTIMS' NEEDS

After a crime, victims may need help in a variety of ways, from short-term financial aid to long-term counseling and health care for conditions resulting from the crime. The Governor's Crime Commission, which funds victim assistance programs, decided that a statewide assessment of victims' needs would help the Commission optimize its resources.

**Dana Rice, DrPH**, assistant professor in the department of public health leadership and practice, and colleagues from the UNC School of Social Work led the assessment. Key to their work was creating a community advisory board to examine how victims' needs, and their access to services, varied across populations.



"We really integrated the community advisory board as partners in the process," Rice said. "They informed every phase of the needs assessment, from design to the interpretation of results and the final recommendations."

The team undertook a comprehensive effort to better understand the scope of victims' needs, making recommendations the Commission is now using to guide its funding decisions. But one of the most significant outcomes was that the Commission invited community advisory board members to be part of their new advisory board. "For the Commission to continue the relationships we'd built is a testament to the value of the community," Rice said.

She also highlighted the role Gillings School students — including a capstone team from the health behavior and health equity and social justice concentrations and multiple practicum students from the Leadership in Practice concentration — played in the project. "From beginning to end, they were in it — they did all of it," she said.

Rice, who uses the term "pracademic" to describe her academic and practice work, said impactful community engagement requires knowledge

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### SHRUTI PANT Master of Public Health first-year student in Maternal, Child and Family Health

Access to maternal health care is crucial for promoting the health and well-being of children and birthing individuals across the U.S. As indicated by a 2022 report from March of Dimes, 36% of counties in the country are categorized as maternity care deserts. This surge in maternity care deserts has resulted in a decline in available obstetric services in these areas, exposing approximately 6.9 million women of childbearing age to higher risks of mortality and morbidity before, during and after pregnancy.

Maternity care deserts are areas without birthing centers, obstetricians or hospitals that are equipped to provide essential support throughout the pregnancy journey. Residents of these care deserts also face limited or non-existent access to midwifery care, doula services, lactation consultants and family care providers. Such deserts are particularly prevalent in geographically isolated and rural communities, where obstacles such as transportation limitations,

of the work and the ability to build relationships. "Without both the science and the art of public health work, policy change can't happen," she said.

### BETTER OUTCOMES FOR ALL

These are just a few of the outstanding leaders who exemplify that at the Gillings School, we strive to excel in both the art and the science of public health — working toward policy changes that improve equity and outcomes for families and communities in N.C. and across the world.

communication challenges with health care providers, and insufficient community education on maternal and child health delay or impede access to care.

The U.S. has the highest maternal mortality rate among developed countries globally. With the rise of maternity care deserts, it has become crucial for policymakers to prioritize maternal health care in 2024. This need for care disproportionately impacts rural communities and individuals of color. Previous studies have revealed that one in four Native American babies and one in six Black babies are born in maternity care deserts nationwide, highlighting the systemic disparities in maternal health care that contribute to the alarming maternal mortality rates. Addressing this public health crisis is essential for advancing the health of birthing people across the nation and decreasing maternal and child mortality caused by maternity care deserts.

There is a nationwide need to improve access to quality health care and education to ensure the well-being of all birthing individuals and the growth and development of all children. By prioritizing increasing access to maternal care services in rural communities, policymakers can take the necessary steps toward deconstructing systemic inequities and fostering healthier outcomes for families.

# SCHOOL NEWS

Here are some examples of the many honors, grants and recognitions School students, faculty and alumni received in the past year.

## STUDENTS

Forty-three Gillings School students were inducted into Phi Beta Kappa, the country's oldest and most honored college honorary society. Phi Beta Kappa membership is open to undergraduates in college and professional degree programs who meet stringent eligibility requirements. Less than 1% of all college students qualify for acceptance.

First-year Master of Public Health (MPH) students **Ethan Chupp**, a student in applied epidemiology, and **Shriti Pant**, a student in maternal and child health, were selected for the 2023-24 Gillings School Public Health Communications Fellowship. They join **Amma Agyemang-Duah** and **Rachel Morrow**, second-year fellows who are both students in maternal and child health. The fellowship will equip students with the skills needed to communicate effectively and with empathy in a broad range of public health settings.

Gillings undergraduate student **Rotimi Kukoyi** appeared as the youngest contestant in the Jeopardy! quiz show's Second Chance Tournament, more than five years after he competed in the Teen Tournament as a ninth-grader. The Morehead-Cain Scholar, an undergraduate student at the Gillings School majoring in health policy and management and minoring in biology and chemistry in the College of Arts and Sciences, plans to become a physician.

**Sarah Sutter**, Master of Public Health student in health behavior, and **Haolin "Leo" Li**, doctoral student in biostatistics, received the 2024 Gillings School Graduate Teaching Assistant (TA) Award.

**Fawn Rhodes**, a student in the MPH@UNC Leadership in Practice program, was honored with a WILMA Women to Watch Award in the public sector category for her work as the health and human services equity coordinator for New Hanover County's Health and Human Services department.

Maternal and child health doctoral candidate **Alexandria Coffey** has been selected for the Presidential Management Fellows Program sponsored by the U.S. Office of Personnel Management.

**Ann Marie Weideman**, doctoral student in biostatistics, has been awarded the 2023 Mary G. and Joseph Natrella Scholarship.

**Tosan Omaghomi**, Master of Healthcare Administration (MHA) student, was named the 2024 recipient of the CAHME/Sachs Family Foundation in Honor of Michael A Sachs for Entrepreneurs in Healthcare Management.

**Emily Ha**, first-year MHA student, recently received the Association of University Programs in Health Administration Corris Boyd Scholarship.

Gillings students are seven of the 12 recipients of The Graduate School at UNC-Chapel Hill's 2024 Impact Awards, recognizing graduate students in programs across disciplines for their powerful discoveries that contribute to a better future for the people of North Carolina:

- **Eric Brown**, doctoral candidate in environmental sciences and engineering,
- **Clara Busse**, doctoral candidate in maternal and child health,
- **Mekhala Dissanayake**, doctoral candidate in epidemiology,
- **Clara Eichler**, doctoral candidate in environmental sciences and engineering,
- **Ximena Perez-Velazco**, doctoral candidate in nutrition,
- **Allie Reimold**, doctoral candidate in health behavior, and
- **Mollie Remch**, doctoral candidate in epidemiology.

## FACULTY

**Courtney Woods, PhD**, associate professor in the Department of Environmental Sciences and Engineering, was appointed by Gov. Roy Cooper to serve on the Governor's Environmental Justice (EJ) Advisory Council. Woods will help address environmental injustices, specifically in marginalized communities in N.C.

**Hongtu Zhu, PhD**, professor in the Department of Biostatistics, is driving international conversations on the use of artificial intelligence by organizing a workshop on how statistics and AI have the potential to revolutionize health care. The workshop is part of the "AI Quorum on Statistics for the Future of AI," a series of meetings at Mohamed bin Zayed University of Artificial Intelligence in UAE aiming to spur pioneering AI research and promoting a broader understanding of AI's potential as a force for social good.

**Alison Stuebe, MD**, professor and Distinguished Scholar in Infant and Young Child Feeding in the Department of Maternal and Child Health, was appointed as a committee member for the National Academies Committee on Understanding Breastfeeding Promotion, Initiation and Support Across the United States. Part of the National Academies of Sciences, Engineering, and Medicine, the committee will identify existing knowledge gaps, needed research, and data collection challenges to better understand the landscape of breastfeeding in order to address inequalities in breastfeeding rates.

Eight faculty members were nominated by their department chairs and received the **inaugural Gillings Research Excellence Awards**, which recognize one early- to mid-career faculty member from each department and program who has demonstrated excellence, innovation and impact in their research pursuits. The honorees are:

- **Zunaid Ahsan, PhD**, assistant professor in the Public Health Leadership Program;
- **Leah Frerichs, PhD**, associate professor in the Department of Health Policy and Management;
- **Melissa Gilkey, PhD**, associate professor in the Department of Health Behavior;

- **Juan Hincapie-Castillo, PharmD, PhD**, assistant professor in the Department of Epidemiology;
- **Quefeng Li, PhD**, associate professor in the Department of Biostatistics;
- **Angela Parcesepe, PhD**, assistant professor in the Department of Maternal and Child Health;
- **Julia Rager, PhD**, assistant professor in the Department of Environmental Sciences and Engineering; and
- **Heather Wasser, PhD**, assistant professor in the Department of Nutrition.

The student-nominated Teaching Excellence and Innovation Awards honor Gillings faculty members who inspire students; enhance student learning through creative, engaging and innovative teaching methods; and/or support student success in the classroom and student growth as public health professionals. The 2024 award winners are:

- **Bahjat Qaqish, PhD**, professor of biostatistics;
- **Amanda Northcross, PhD**, associate professor of environmental sciences and engineering;
- **Yesenia Merino, PhD**, adjunct assistant professor of health policy and management;
- **Caroline Chandler, PhD**, assistant professor of maternal and child health; and
- **Jan Lee Santos, MD**, adjunct instructor, academic affairs.

**Stephen Cole, PhD**, professor of epidemiology, received the John E. Larsh Jr. Award for Mentorship, one of the School's most prestigious awards, which recognizes the faculty member who best exemplifies the qualities of mentoring and commitment to students.

**Joseph Ibrahim, PhD**, Alumni Distinguished Professor of biostatistics, received the Edward G. McGavran Award for Excellence in Teaching, which recognizes career-long excellence in teaching by a faculty member at the Gillings School.

**Joe Brown, PhD, PE**, professor of environmental sciences and engineering, received one of the School's most prestigious awards, the Bernard G. Greenberg Alumni Endowment Award for excellence in teaching, research and service.

**Dorothy Cilenti, DrPH**, professor of maternal and child health and director of the Maternal Health Learning and Innovation Center (MHLIC) and the National Maternal and Child Health Workforce Development Center, and fellow experts at the MHLIC are co-authors on the third edition of the *Practical Playbook: Working Together to Improve Maternal Health*.

**Noel Brewer, PhD**, Gillings Distinguished Professor in Public Health, was named to the Center for Disease Control and Prevention's Advisory Committee on Immunization Practices (ACIP). The ACIP develops recommendations for U.S. immunizations, including ages when vaccines should be given, number of doses, time between doses, and precautions and contraindications.

Six faculty members received **Gillings Innovation Lab awards** to pursue research using generative artificial intelligence (gAI) that focuses on solving real-world problems over the next two years. Their research spans several topics, including cervical cancer screening in Malawi, decision-making around HIV treatment, modeling for brain-related disorders, behavior change for weight management, poor air quality and standards of primary care in marginalized populations around the world. The winners are:

- **Jennifer S. Smith, PhD**, professor in the Department of Epidemiology;
- **Lauren Hill, PhD**, assistant professor in the Department of Health Behavior;
- **Hongtu Zu, PhD**, professor in the Department of Biostatistics;
- **Brooke Nezami, PhD**, assistant professor in the Department of Nutrition;
- **William Vizuete, PhD**, professor in the Department of Environmental Sciences and Engineering; and
- **Sean Sylvia, PhD**, associate professor in the Department of Health Policy and Management.

**Jason West, PhD**, professor of environmental sciences and engineering, was lead author of the chapter on air quality in the Fifth National Climate Assessment by the U.S. Global Change Research Program. Published periodically as part of a congressional mandate, the assessment is a summary of the latest climate science, informed by experts in health, energy, environmental sciences and more. It's also an evaluation of how climate change is affecting the U.S. economy and its populations.

Fifteen Gillings faculty were among the world's top academic experts in Clarivate's 2023 list of Highly Cited Researchers™:

- **Ralph S. Baric, PhD**, William R. Kenan, Jr. Distinguished Professor of epidemiology;
- **Noel T. Brewer, PhD**, Gillings Distinguished Professor in Public Health and professor of health behavior;
- **Ariane Brown**, research specialist in the Gillings School's Department of Epidemiology;
- **Stephen R. Cole, PhD**, professor of epidemiology;
- **Rachel Graham, PhD**, assistant professor of epidemiology;
- **Lisa Gralinski, PhD**, assistant professor of epidemiology;
- **Sarah Leist, PhD**, research associate in epidemiology;
- **David Martinez, PhD**, a former Gillings School postdoctoral researcher in epidemiology and current assistant professor at the Yale School of Medicine;
- **Hans W. Paerl, PhD**, professor of marine and environmental sciences and engineering and William R. Kenan, Jr. Distinguished Professor at UNC's Institute of Marine Sciences;

- **Barry M. Popkin, PhD**, William R. Kenan, Jr. Distinguished Professor of nutrition;
- **Byron Powell, PhD, LCSW**, adjunct associate professor of health policy and management at Gillings and associate professor at the Brown School at Washington University in St. Louis;
- **Bryce Reeve, PhD**, adjunct professor of health policy and management at Gillings and professor of population health sciences and pediatrics at the Duke University School of Medicine;
- **Alexandra Schaefer, PhD**, assistant professor of epidemiology;
- **Timothy Sheahan, PhD**, assistant professor of epidemiology; and
- **Amy Sims, PhD**, associate professor of epidemiology.

**Aaron Salzberg, PhD**, the Don and Jennifer Holzworth Distinguished Professor and director of the UNC Water Institute, was selected to serve on the National Academies of Sciences (NAS) Advisory Committee to the United States Global Change Research Program (USGCRP). In this role, he will provide advice to the USGCRP — a federal program mandated by Congress to coordinate federal research and investments in understanding the forces shaping the global environment, both human and natural, and their impacts on society. This is in addition to his current role on the NAS’s Climate Security Roundtable, which provides guidance to the U.S. intelligence community on climate-related risks to U.S. National Security.

**Amanda Holliday, MS, RD, LDN**, associate professor of nutrition, and **Amy Joy Lanou, PhD**, director of the North Carolina Institute for Public Health and professor in the joint Place-Based Health Program at UNC Asheville, were part of the Task Force on Healthy Aging that developed 12 actionable recommendations supported by 30 total strategies for improving social connections, falls prevention, food and nutrition security, and mobility among aging North Carolinians.

**Rebecca Fry, PhD**, Carol Remmer Angle Distinguished Professor and Interim Chair in the Department of Environmental Sciences and Engineering, was named to the U.S. Environmental Protection Agency’s (EPA) Science Advisory Board (SAB) and Clean Air Scientific Advisory Committee (CASAC). Fry will also serve on the Chemical Assessment Advisory Committee. She, along with seven other new SAB members, were selected by Administrator Michael S. Regan to provide sound scientific advice to EPA leadership to help advance the agency’s mission.

**David J. Weber, MD**, the Charles Addison and Elizabeth Ann Sanders Distinguished Professor of medicine and pediatrics at the UNC School of Medicine and professor of epidemiology at the Gillings School, received the 2023 Edward Kidder Graham Faculty Service Award. The Award was established in 2010 to recognize outstanding service by a member of the voting faculty of UNC–Chapel Hill. In addition to his faculty roles, Weber is associate chief medical officer at UNC Health Care and medical director in the Department of Infection Prevention at UNC Medical Center.

**Mya Roberson, PhD, MSPH**, assistant professor of health policy and management, has received a Career Development Award from the American Association for Cancer Research in Partnership with Victoria’s Secret and Pelotonia, and was featured as part of a series of profiles on 10 Global Fund recipients. The VS Fund invests in the next generation of women scientists who are committed to improving outcomes for women’s cancers. Roberson leads research aimed at improving cancer outcomes for Black women, focusing specifically on genetic testing.

**Hans Paerl, PhD**, Kenan Distinguished Professor of marine sciences and environmental sciences and engineering, co-edited a new book titled *Climate Change and Estuaries*, which provides state-of-the-art coverage of climate change effects on estuarine ecosystems from local, regional and global perspectives. The chapters consist of comprehensive studies in coastal, estuarine and marine sciences, climate change, and coastal management and provide an extensive international collection of data in tabular, illustrated and narrative formats useful for coastal scientists, planners and managers.

**Matt Nielsen, MD, MS**, professor and chair of the Department of Urology, director of quality for UNC Faculty Physicians, and adjunct associate professor of epidemiology and health policy and management at the Gillings School, has been appointed to the National Quality Forum (NQF) Diagnostic Excellence Committee under the NQF Advancing Measurement of Diagnostic Excellence for Better Healthcare Initiative.

**Arrianna Marie Planey, PhD, MA**, assistant professor of health policy and management at the Gillings School, received the 2023 Gillings Faculty Award for Excellence in Health Equity Research. Her specific areas of research focus on examining health care quality and access, policy impacts on access to care, the impact of social determinants and fundamental causes on health services, and health and health care equity as both a process and an outcome.

**John W. Hatch, DrPH**, ’74 a W.R. Kenan Jr. Professor emeritus of health behavior, was honored by the Caucus on Public Health and the Faith Community (CPHFC) for his innovation and dedication to teaching, training, research and development related to health promotion and disease prevention. Hatch’s leadership in the Community Health Centers movement and faith communities has been a model for decades. The Caucus was established in 1996 with a mission to assist the American Public Health Association (APHA) members and diverse faith communities in understanding the value and vital role that faith plays in healing, health promotion and disease prevention. In February, the Gillings School also announced the John W. Hatch Scholarship Fund, which will support graduate students in the Department of Health Policy and Management and the Department of Health Behavior with an interest in working for Federally Qualified Health Centers.

**Morris Weinberger, PhD**, the emeritus Vergil N. Slee Distinguished Professor of Healthcare Quality and Management, was presented with the governor’s Order of the Long Leaf Pine award — one of the highest honors reserved for those who have made significant contributions to N.C. and their communities through exemplary service and exceptional accomplishments.

His research has focused on clinician- and non-clinician-delivered interventions in primary care, pharmacist care, and transitions in clinical care. Weinberger has also been a committed teacher, leader and mentor at the Gillings School, serving as faculty and later as department chair.

## ALUMNI

**Traci Baird, MPH** (’95), president and CEO of EngenderHealth, received the 2024 Harriet Hylton Barr Distinguished Alumni Award, which honors an alumnus or alumna for outstanding achievements and contributions to public health.

**Delton Atkinson, MPH** ’76/’79 (health policy and management and biostatistics), has received the Harvey E. Beech Outstanding Alumni Award for overall achievement. One of four recipients for 2023, Atkinson received the award during homecoming weekend at the Light on the Hill Scholarship Gala.

This honor recognizes his long career dedicated to providing the foundational information to ensure people across N.C. and the U.S. can benefit from data-informed decisions related to health. Atkinson conducted groundbreaking work that highlighted racial/ethnic health disparities affecting N.C. residents; this work was an impetus for the establishment of the N.C. Minority Health Advisory Council, which advises the N.C. governor and Department of Health and Human Services with the aim of reducing health (and health care) disparities among racial/ethnic minorities and underserved populations.

**Jeliah Clark, PhD**, and **Josée Dussault, PhD**, were selected as recipients of the Lady Mireille and Sir Dennis Gillings Global Public Health Fellowships. The fellowships are awarded to two recent postdoctoral graduates from Gillings, the University of Cambridge, and Concordia University in Montreal to support work at the France-based Institut Pasteur. Clark and Dussault traveled to Paris in early 2023, where they are advancing their skillsets and scholarship in public health and anticipate future training in business and finance that can help them become public health entrepreneurs. Their postdoctoral work in Paris will last until 2025. Clark graduated with a doctoral degree from the Department of Environmental Sciences and Engineering in 2022, and Dussault graduated with a doctoral degree in the Department of Epidemiology in 2022.

Gillings alumni **Julci Areza, MPH**, and **Joanne Johnson, MPH**, have been named to the 2023 class of public health fellows through a program run by the Association of Schools and Programs of Public Health (ASPPH) and the Centers for Disease Control and Prevention (CDC). The ASPPH/CDC Public Health Fellowship Program aims to support a culturally relevant and applied mentored learning experience for early career professionals with graduate degrees in public health. For the next 12 to 24 months, Fellows’ training will follow eight tracks in 11 different CDC Centers/Institutes/Offices (CIOs). The separate tracks allow the fellows to strengthen their capacity in their areas of interest. Upon completion of the program, fellows will have made useful contributions to projects of national public health importance that are related to the CDC’s mission while gaining skills that will benefit their own public health careers.

**Ethan Phillips** (BSPH ’23) was named a 2023 recipient of the John and Diana Barry Scholarship, which provides full funding for graduate study at the University of Oxford.

**Karla Buru, DrPH** (’22), was recognized as one of the de Beaumont Foundation’s 40 Under 40 in Public Health in recognition of her work at the South Carolina Department of Health and Environmental Control.

**Katherine L. Turner, MPH** (’96), founding president of Global Citizen, LLC consulting firm, was selected to participate in the Women Leaders for the World Fellowship Program 2023 cohort and join How Women Lead’s powerful network of global women leaders.

## EXAMPLES OF MAJOR GRANTS AND AWARDS

**Lindsey Haynes-Maslow, PhD, MHA**, associate professor of health policy and management and adjunct assistant professor of nutrition, received a \$250,000 health equity research grant from the Humana Foundation. The grant supports her work to study a program that delivers meals to low-income senior citizens in their homes during a 12-week period. The program also provides seniors with social-connectedness programs to address mental and physical health.

**Rebecca Fry, PhD**, Carol Remmer Angle Distinguished Professor and Interim Chair in the Department of Environmental Sciences and Engineering, and **T. Michael O’Shea, MD, MPH**, C. Richard Morris, MD Distinguished Professor of Pediatrics in the UNC School of Medicine, have been awarded **\$2.1 million from the National Institutes of Health** (NIH) to continue their participation in the Environmental influences on Child Health Outcomes (ECHO) Program. The team has been funded for their second phase of their groundbreaking research initiative to optimize the health of children born extremely preterm from 2023 to 2030. This grant will enable the expansion and extension of the ECHO Cohort’s critical work, particularly focusing on diverse populations. The primary objectives of the ELGAN-ECHO project are to evaluate predictors of exposure to environmental stressors — both chemical and non-chemical — during the preconception period, pregnancy and early childhood.

**Andrew Olshan, PhD**, Barbara Sorenson Hulka Distinguished Professor in Cancer Epidemiology and interim associate dean of research at the Gillings School, and **Tania Desrosiers, PhD**, associate professor of epidemiology, were awarded a **\$2.1 million, 3.5-year grant from the Centers for Disease Control and Prevention’s (CDC’s) National Center on Birth Defects and Developmental Disabilities**. The grant supports the ongoing work of the N.C. Center for Birth Defects Research and Prevention (NCCBDRP), one of ten coordinated centers located across the United States that have used CDC funding to study the risks of birth defects. Researchers will collect information on 17 types of major structural birth defects that are associated with high infant mortality and morbidity throughout childhood and beyond and will study environmental, behavioral and genetic causes of birth defects. Their findings will inform clinical and public health interventions meant to lower the rates of birth defects.

**Shabbar Ranapurwala, PhD**, assistant professor of epidemiology, and his team received a new **\$1.2 million, three-year grant from the CDC** to examine the association of state minimum wage policies, COVID-19 and related economic impact payments, and racial discrimination on community violence including firearm violence in the U.S. Violent deaths are responsible for the most years of life lost among people 18 to 50 years old in the U.S. With poverty being one of the drivers of violence, increasing minimum wage may be a potent policy intervention for violence prevention, but minimum wage increase laws have not been evaluated as a community violence prevention method.

The National Institutes of Health (NIH) and the U.S. Food and Drug Administration (FDA) have awarded UNC's **Tobacco Center for Regulatory Science (TCORS) \$18.6 million** to further research into tobacco product regulations. The center is led by **Kurt Ribisl, PhD**, Jo Anne Earp Distinguished Professor and chair of the Department of Health Behavior at Gillings, and program leader of cancer prevention and control at UNC's Lineberger Comprehensive Cancer Center. UNC TCORS is one of seven institutions by the FDA Center for Tobacco Products in partnership with the NIH as part of the third cohort of the multidisciplinary TCORS, which will continue the work of providing scientific studies that inform FDA's regulatory authority for tobacco products.

The American Cancer Society has awarded a five-year, **\$1.2 million Team Science grant** to a group of UNC-Chapel Hill researchers who will develop new methods to measure and map cancer screening across N.C. Katherine Reeder-Hayes, MD, is the study's lead principal investigator, and **Jenny Lund, PhD**, and **Christopher Baggett, PhD**, are the team principal investigators and co-direct the UNC Lineberger Cancer Information & Population Health Resource (CIPHR). The grant will fund research designed to facilitate more widespread cancer screening and early detection, culminating in reduced cancer mortality.

Gillings researchers are co-leading a major clinical trial aiming to improve care and support for stroke survivors by testing different interventions to lower their blood pressure to reduce risk of additional stroke or cardiovascular events. Originally launched in 2021 through the Wake Forest University School of Medicine, the **\$29.9 million, six-and-a-half-year award from the Patient-Centered Outcomes Research Institute (PCORI)** recently expanded to include 11 main trial centers throughout the United States. A team of Gillings researchers, headed by co-principal investigator **Wayne Rosamond, PhD**, professor of epidemiology, leads the trial's data coordinating center.

#### OBITUARIES (as of March 1, 2024)

**Adaora Adimora, MD, MPH**, professor of epidemiology at the Gillings School and Sarah Graham Kenan Distinguished Professor of Medicine at UNC's School of Medicine, passed away Jan. 1, 2024, at age 67. A brilliant and compassionate physician scientist, she left an indelible mark on colleagues and students as well as the broader public



health and medical communities. During more than 25 years of clinical practice, she dedicated her career to treating patients with HIV and investigating the epidemiology of HIV and other sexually transmitted infections. Her work shed light on heterosexual HIV transmission within Black communities, emphasizing the role of sexual network patterns and addressing the impact of macroeconomic and social forces on racial disparities during the U.S. HIV epidemic. Adimora earned a medical degree from Yale University in 1981, later moving to N.C. and receiving a Master of Public Health degree from UNC in 1993. She joined the School as a clinical assistant professor of epidemiology in 1997 and became a full professor in 2009; in 2003 she became the first Black woman to achieve tenure within UNC's Department of Medicine. In 2019, Adimora was elected to the National Academy of Medicine, and a year later she received UNC's most prestigious faculty recognition, the Thomas Jefferson Award. In 2021, she was recognized as the No. 17 expert in AIDS and HIV in the world. She served in numerous state and national positions including the Presidential Advisory Council on HIV/AIDS and the National Institutes of Allergy and Infectious Diseases Advisory Council. In addition, Adimora generously gave her time to mentor and advise countless students, trainees and junior faculty, nurturing the next generation of health professionals.

**Pranab K. Sen, PhD**, Gillings School professor emeritus who was on the School's faculty for more than 50 years, passed away Dec. 31, 2023, at age 86. Sen was a mathematician and longtime biostatistics professor who is widely regarded as a pioneer of nonparametric statistics. Sen is known for independently inventing the Hodges-Lehmann Estimator at the same time as Joseph Hodges, PhD, and Erich Lehmann, PhD, in 1963. In 1968, he invented the Theil-Sen Estimator, a form of univariate and multivariate statistical analyses used to this day. Sen earned a doctorate in statistics and an honorary doctorate in science from the University of Calcutta. He taught at the University of Calcutta and the University of California at Berkeley before joining the faculty of UNC-Chapel Hill School of Public Health in 1965, becoming a Cary C. Boshamer professor in 1982. In 2002, he won the Gottfried E. Noether Senior Scholar Award of the American Statistical Association (ASA). He was the 2010 recipient of the ASA's Samuel Wilks Memorial Award for outstanding contributions to statistical research and for exceptional service in mentoring doctoral students. In 2011, Sen and his family established the P.K. Sen Visiting Professorship at UNC-CH, which recruits aspiring scholars in statistical science from nations that are still developing their statistics and biostatistics workforce. In honor of his mother, Sen's family also created the Kalyani Sen Scholarship for International Students, to support international students in their final year of seeking a degree in biostatistics. Donations in his memory may be made online at the Give UNC webpage in support of the Pranab K. Sen Distinguished Visiting Professorship or the Kalyani Sen International Students Scholarship in Biostatistics. [📄](#)



# Stephens unites oral and public health



**Rhonda Stephens, DDS, MPH**, professor of the practice of public health leadership and practice and adjunct assistant professor at the Adams School of Dentistry, came to Carolina in late 2023 at the behest of **Leah Devlin, DDS**, professor of the practice of health policy and management and former North Carolina state health director, with the goal of strengthening connections and collaboration between the schools of dentistry and public health at UNC.

"The mouth is a gateway and mirror," said Stephens. "Much of what happens in the body has a start in, is connected to, or is reflected in the mouth." Oral health issues are ubiquitous — tooth decay is a preventable chronic condition that affects 90% of people. Gum disease and other oral infections contribute to a broad range of health impacts, from heart disease to premature birth.

Good oral health isn't just determined by who has access to a dentist. Nurses, doctors, social workers, public health professionals and policymakers can also play important roles in improving people's oral health.

For example, adding fluoride to drinking water, or fluoridation, is one of the most effective public health measures to improve oral health, preventing up to 40% of cavities. Yet, owing in no small part to organized disinformation campaigns, municipal fluoridation programs are under threat in communities in North Carolina and elsewhere. Stephens notes that, while some states require fluoridation, N.C. does not.

*"My vision is that Columbia St. students leave [UNC] with the recognition that oral health is a matter of well-being, overall health and public health."*

**Rhonda Stephens, DDS, MPH**

One of her top priorities is establishing a program to train people to counter this misinformation.

Her mission, however, is far broader. She wants to ensure dental public health is integrated into all health and human services professions.

"My vision is that Columbia St. students leave [UNC] with the recognition that oral health is a matter of well-being, overall health and public health," said Stephens. "We need an interprofessional, multidisciplinary workforce that promotes dental public health to and for the patients, clients, and communities it serves."

[Columbia Street runs past the Gillings School and other health science schools at UNC.] [📄](#)

Note: Stephens' professorship at the Gillings School is supported by a private gift from several generous community members. Contact email.sph@unc.edu to learn more.

# THE TRANSFORMATIVE POTENTIAL OF PUBLIC HEALTH PHILANTHROPY

At the Gillings School, we work to protect health for all – and in all areas of life. From understanding the chemical makeup of the air we breathe to measuring the health effects of public policy, our researchers make discoveries that matter.

Acting on these discoveries, in collaboration with communities and partners, helps establish the conditions for people to thrive.

Such a wide-ranging mission can be difficult to understand. Three key domains help explain how public health measures shape where we live, work and play:

## 1. PREPAREDNESS

Preparedness means building systems, guidelines and technologies to mitigate routine risks as well as emergency conditions.

We **develop vaccines** and treatments to prepare for future outbreaks; **create strong messages** that educate people about public health issues and increase vaccine coverage; and **train and advise** governments, leaders and workplaces to protect health at work and at home.

## 2. CLEAN AIR AND WATER

Clean air and water are vital to life everywhere but are increasingly under threat.

We **collaborate with communities** and support their efforts to identify and address environmental

contamination; **study the impact** of harmful chemicals in the air and develop strategies for sustainable change; and **innovate new technologies** that protect access to clean water, sanitation and hygiene around the world.

## 3. HEALTHY FAMILIES AND COMMUNITIES

From the doctor's office to the convenience store, public health interventions help your family and community stay healthy.



We **explore the genetic and metabolic factors** that treat and prevent chronic conditions like cancer, heart disease, diabetes and obesity; **examine inequitable health outcomes** and develop solutions; and we **generate population-level strategies** to reduce tobacco use, vaping, substance and alcohol misuse, and other behaviors that compromise health.

The Gillings School's research, practice and education contribute the evidence, know-how and personnel to promote good health for individuals, societies and ecosystems. This wide-ranging mandate requires broad participation and partnerships with philanthropic individuals and organizations committed to transforming global public health.

One of the best ways you can support our work is by making a gift to the Dean's Acceleration Fund. This signature fund provides the flexibility to respond to urgent needs and capitalize on emerging opportunities in all these areas.



Contact the Gillings School Advancement team to learn more about how you can help:

- [giving.sph@unc.edu](mailto:giving.sph@unc.edu)
- [go.unc.edu/SPHDeansPriorities](http://go.unc.edu/SPHDeansPriorities)



## YOUR LEGACY:

# HELPING FUTURE STUDENTS AND FACULTY TRANSFORM GLOBAL PUBLIC HEALTH

By making a planned gift, you can provide for the future of the UNC Gillings School of Global Public Health, the top *public* school of public health in the United States, and its mission of research, teaching, practice and service for generations to come.

UNC's planned giving office can help tailor your gift to meet your needs:

- Bequests, or gifts made through a will or trust, are a popular and flexible option.
- In a charitable gift annuity, you transfer money or property to the School, and we make payments to you for the rest of your life.
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Have you included the Gillings School in your current estate plan?

Are you interested in learning more about leaving a lasting legacy for Gillings students and faculty?

## PLEASE CONTACT THE GILLINGS ADVANCEMENT OFFICE IF YOU NEED MORE INFORMATION:

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#1

## Still the number one *public* school of public health in the country

The Gillings School is, once again, the No. 1 *public* school of public health in the United States, according to the 2024-25 rankings from *U.S. News and World Report*. Thank you so much for your continued support!



“There are few things as universal as public health, and so when we reflected on how best to give back, contributing to the future of Gillings made all the sense in the world.”

**Brett Weed, MPH  
(2016, PHL)**

Consumer Safety  
Officer, U.S. Food and  
Drug Administration

**Sara Weed, JD  
(2008)**

Co-Chair Global Fintech  
+ Digital Assets; Gibson,  
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