



GILLINGS SCHOOL OF
GLOBAL PUBLIC HEALTH

Impact Report 2023

A complement to *Carolina Public Health* magazine



PICTURED: UNC faculty and staff walk with peers through the Western North Carolina mountains as part of the 2023 Tar Heel Bus Tour. (Photo by Jon Gardiner/UNC-Chapel Hill)



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“I hope you’ll take a moment to join us in celebrating our accomplishments while we anticipate with excitement the new challenges we are ready to face.”

From the Dean



Has it been a year already?

Since stepping into the role of dean at the Gillings School, I have been on a journey of daily discovery that has left me inspired by what our Carolina community can accomplish.

We are once again the number one *public* school of public health in the country, according to the 2023 U.S. News rankings. That carries special meaning to me this year because I saw firsthand how much this honor is a result of the hard work and dedication of our students, faculty, staff, alumni and donors.

They are the engine that keeps the Gillings School running, who help one another face the tough challenges and show appreciation for their achievements. Through their work, they push boundaries in search of new public health solutions that bolster preparedness, support clean air and clean water, and lead to healthy communities and families.

I am also grateful for our community partners, peer institutions and collaborators across UNC, who are an important part of the global network that trains public health leaders of tomorrow.

Thank you for a wonderful first year – one where we graduated the largest cohort of public health students in UNC-Chapel Hill’s history. I am confident that, as each graduate takes the next step in their journey, they will be supported by a strong public health foundation that will help dismantle systemic inequities and make meaningful change in lives.

We are proudly a public school and committed to fulfilling our responsibility to the state of North Carolina and to the world, ensuring that everyone has the opportunity to experience the best health possible. This impact report is a product of that commitment, and we hope it demonstrates the value of your investment in a public health education that can make an impact at UNC, in our state and around the globe.

In public health, the work is never truly done. But through this impact report, I hope you’ll take a moment to join us in celebrating our accomplishments while we anticipate with excitement the new challenges we are ready to face. 🏠

Nancy Messonnier, MD

Dean and Bryson Distinguished Professor in Public Health

Congratulations to our new department chairs!



Raz Shaikh, PhD

Chair of the Department of Nutrition



Kristin Reiter, PhD

Chair of the Department of Health Policy and Management



Michael Hudgens, PhD

Chair of the Department of Biostatistics



Anna Schenck, PhD

Chair of the Department of Public Health Leadership and Practice

Our 3 pillars for a healthier future

We strive toward a future where health is a universal right and the planet we call home is safeguarded for generations to come. In our pursuit of a healthier world, we've established three essential pillars to illustrate how we meet our mission.

1 Preparedness

We aim to prevent crises; craft strong, empathetic health messages; support an immediate response to emergencies; and work with communities through their full recovery.

- READDI's "marathon of preparedness" (p. 8)
- Triangle CERSI: Advancing regulatory innovation (p. 10)
- Gillings' CDC outbreak forecasting center (p. 12)



2 Clean air and water

We study the systems, structures and pollutants that pose a threat to health, invent scalable solutions, and collaborate with leaders to create sustainable change.

- EPA Boosts Gillings PFAS Air Research (p. 13)
- Students reflect on UN Water Conference 2023 (p. 14)



3 Healthy families and communities

We research chronic illness prevention, address health inequalities and curb harmful behaviors with population-level strategies.

- Youth leaders champion vaping prevention (p. 16)
- Lancet transforms evidence into global well-being (p. 18)



Symposium underscores READDI's role in 'marathon of preparedness'

Imagine a scenario where COVID-19 had hit, but the world was ready with a medication that could stop it in its tracks.

Making that scenario a reality was the focus of "Ready on Day 1," a half-day symposium hosted by READDI, Inc. — the Rapidly Emerging Antiviral Drug Development Initiative — in Chapel Hill, North Carolina, on Sept. 20.

A nonprofit organization, READDI leverages the latest virology know-how and medicinal chemistry to develop broad-acting small molecule antiviral therapeutics — pills that can be taken with a drink of water — to prevent severe illness, hospitalization and death. Critically, the company is doing so now, before the next novel virus emerges.

"It's not about the sprint of response from the moment that we're all panicking. It is about the marathon of preparedness before that day zero," said speaker Charlotte Baker, deputy head of the London-based International Pandemic Preparedness Secretariat (IPPS) which is affiliated with the G7 and is collaborating with READDI to help prepare for the next pandemic.

Baker, who arrived fresh from the United Nations General Assembly Science Summit, joined a blockbuster roster of experts who discussed the urgency of preparedness and the importance of broad-spectrum therapeutics — READDI's signature approach. Other speakers included former United States Senator Richard Burr and Matt Hepburn, MD, with the Department of Defense (DOD), who was COVID Vaccine Lead for Operation Warp Speed.

"Ready on Day 1" drew a capacity crowd of nearly 100 attendees. It followed the annual scientific meeting of the Carolina-based READDI AViDD Center, one of nine Antiviral Drug Discovery (AViDD) Centers for Pathogens of Pandemic Concern around the U.S. funded by the National Institute of Allergy and Infectious Diseases.

Targeting virus families

Following introductory remarks from UNC Chancellor Kevin Guskiewicz, READDI CEO Jimmy Rosen held up a deck of playing cards, a prop meant to drive home READDI's innovative "broad-spectrum" antiviral approach. Drawing a card from the deck, Rosen asked audience members on one side of the room to silently guess the card's number. Those on the other side needed only guess the suit.

"The suit is a heart," Rosen said. "How many people on this side guessed it was a heart?"

Hands shot up.

Turning to face the other side of the room, he said, "OK, the card is a 30112X."

No hands.

Like the next pandemic virus, card number 30112X does not yet exist, but the suit that it belongs to does.

"If this deck of cards represents viruses and each suit is a family of viruses, READDI is making drugs that work against the suits," Rosen explained. "We have to be ready with drugs for

"It's not about the sprint of response from the moment that we're all panicking. It is about the marathon of preparedness before that day zero." **Charlotte Baker**



Participants and experts at the 'Ready on Day 1' Symposium.

every suit in the deck [...] because we don't know what the next virus is going to be."

That's how viral pandemics work; the specific source of the next outbreak is a mystery. Experts call it Disease X.

"We have to accept that and use it as our design principle," said Carolina virologist Nat Moorman, PhD, READDI co-founder and scientific adviser.

READDI's design principle, Moorman said, takes advantage of the fact that viruses in a family share inherited traits that allow scientists to target vulnerabilities within families. READDI is developing antiviral drugs that work against an entire family of viruses — even viruses that have not yet emerged.

The drug discovery work for five top virus families of pandemic concern is well underway, Moorman shared in his presentation. He detailed progress on

two promising compounds — NZ-804 and CMX-521 — that target members of the coronavirus family, including SARS-CoV-2 and potentially future coronaviruses that have not yet emerged.

'It's not a miracle. It's science.'

The catastrophic consequences of getting caught off guard by a novel virus like SARS-CoV-2 was a recurring theme throughout the afternoon.

"We did not have therapeutics. We didn't have vaccines. People were hiding in their houses," said **Dean Nancy Messonnier, MD**, of the UNC Gillings School of Global Public Health, who worked at the Centers for Disease Control and Prevention (CDC) when the novel coronavirus emerged. She led the CDC's COVID-19 vaccine implementation program.

Read full article at go.unc.edu/day1-symposium

UNC-Chapel Hill, Duke awarded \$50M from FDA for new research center

The U.S. Food and Drug Administration (FDA) will award up to \$50 million over five years to the University of North Carolina at Chapel Hill and Duke University to establish the Research Triangle Center of Excellence in Regulatory Science and Innovation (CERSI). The center will also involve collaborations with NC State University and North Carolina Central University (NCCU), a leading historically Black university.

Triangle CERSI, the newest of only five CERSIs across the country, will work with FDA scientists to perform cutting-edge scientific research to better inform and support the FDA's needs. The four other FDA-funded CERSIs include the University of Maryland, the University of California at San Francisco in partnership with Stanford University, Johns Hopkins University, and Yale University in partnership with the Mayo Clinic.

Along with principal investigator **Paul Watkins, MD**, Howard Q. Ferguson Distinguished Professor of Pharmacy at the UNC Eshelman School of Pharmacy and professor at the UNC School of Medicine and the UNC Gillings School of Global Public Health, three principal investigators from Duke proposed the creation of the Triangle CERSI: Susan Halabi, PhD, James B. Duke Distinguished Professor of biostatistics and bioinformatics and co-chief for the division of biostatistics at Duke University School of Medicine; Robert Mentz, MD, associate professor of medicine and population health sciences and chief of the heart failure section at Duke University School of Medicine and a Duke Clinical Research Institute faculty member; and Ehsan Samei, PhD, Reed and Martha Rice Distinguished Professor of Radiology at Duke University and chief imaging physicist for Duke University Health System. Together they will co-lead the new Triangle CERSI to serve as an accelerator to meet the FDA's evolving need to access the most current scientific knowledge and

to also create a tight-knit community for regulators, academia, industry and other stakeholders.

"We are delighted to be awarded the fifth national CERSI, which is a testament to the outstanding scientists at Carolina and Duke, along with our collaborating institutions NC State and NCCU. This center will support many joint research projects involving FDA scientists to better inform regulatory decisions and thereby improve public health," said Watkins.

The center will include a broad network of researchers and national and international collaborators who bring together unique and diverse expertise and resources to support FDA regulatory actions. The Triangle CERSI will include but is not limited to faculty from the UNC Eshelman School of Pharmacy, UNC School of Medicine, UNC Gillings School of Global Public Health, UNC School of Data Science and Society, Duke University School of Medicine, Duke University Pratt School of Engineering, Duke University's Center for Virtual Imaging Trials, the Duke Clinical Research Institute, the Colleges of Engineering and Veterinary Medicine at NC State, the NCCU College of Health and Sciences, NCCU College of Arts, Social Sciences and Humanities, the NCCU Biomanufacturing Research Institute and Technology Enterprise, and the NCCU Julius L. Chambers Biomedical and Biotechnology Research Institute (JLC-BBRI).



"We are delighted to be awarded the fifth national CERSI, which is a testament to the outstanding scientists at Carolina and Duke... This center will support many joint research projects involving FDA scientists to better inform regulatory decisions and thereby improve public health." **Paul Watkins, MD**

"The Triangle CERSI is a significant opportunity for our scholarly communities to curate and direct our intelligence towards addressing an important societal need for proficient and efficient regulatory approval and oversight," noted Samei.

Drawing from the Duke community, Mentz noted, "We are uniquely positioned to leverage the tremendous strengths of Duke's trial and observational research infrastructure, machine learning, statistical knowledge, in silico trials, and imaging expertise to answer meaningful questions for patients and other key stakeholders."

In close partnership with the FDA, the goal of the center is to serve as an accelerator to meet the FDA's evolving need to access the most current scientific knowledge. The center will provide an abundance of essential new information, as well as infrastructure and tools to shorten the drug and device development process, advance public health, and inform regulatory decision-making and guidance documents that complement and enhance other CERSIs.

"The Triangle CERSI will equip the FDA with tools to overcome the challenges of the 21st-century drug and device development process in order to rapidly advance public health interests," added Halabi.



The 38 projects described in the grant application propose novel statistical methodology, machine learning and artificial intelligence, imaging, in silico trials, pediatric pharmacology, population science, patient-reported outcomes, safety assessment across the lifespan and other areas.

"The breadth and scope of the research projects that the Triangle CERSI will support, combined with the world-class expertise available in the Triangle to address them, ensure that the CERSI project will have a transformative impact on regulatory science," said Marie Davidian, PhD, J. Stuart Hunter Distinguished Professor of Statistics at NC State University.

"The Triangle CERSI presents an important opportunity for North Carolina Central University students and researchers to leverage its infrastructure and tools for research and training, engage in regulatory science projects and help diversify the workforce," said Deepak Kumar, PhD, NCCU interim associate provost, dean of research and director of the JLC-BBRI. [📄](#)

Gillings hosts new CDC outbreak forecasting center

A new center based at the UNC Gillings School of Global Public Health is an important step toward creating a nationwide outbreak resource to support more effective responses during public health emergencies.

Carolina’s public health school is one of 13 funded partners working alongside the Centers for Disease Control and Prevention to establish the Outbreak Analytics and Disease Modeling Network (OADM).

Each funded partner in the network will provide support in innovation, integration or implementation for outbreak analytics, disease modeling and forecasting. The Gillings School will receive \$4.5 million a year for five years to support the creation of the Atlantic Coast Center for Infectious Disease Dynamics and Analytics (ACCIDDA).

Over the next five years, ACCIDDA will support the CDC’s Center for Forecasting and Outbreak Analytics as a Center of Innovation and as the OADM Coordinating Center, overseeing coordination of efforts and the transition of analytical methods among the 13 funded partners.

“These centers will create a national network to provide data and modeling support to public health responders as they prepare for future infectious disease outbreaks,” said **Justin Lessler**, co-lead of ACCIDDA and professor of epidemiology at the Gillings School. “We want to ensure that, the next time an incident like COVID-19 happens, there are known and trusted sources for modeling and data analysis that can produce relevant and valid projections.”

ACCIDDA will be led by Lessler and **Kim Powers**, associate professor of epidemiology at the Gillings School, along with Shaun Truelove, assistant scientist in international health and epidemiology at the Johns Hopkins Bloomberg School of Public Health. Additional collaborating institutions include the Johns Hopkins Applied Physics Laboratory, the University of Florida



and the University of Pittsburgh School of Medicine. **Jennifer Anderson** at the Gillings School and Erica Carcelén at Johns Hopkins Bloomberg School of Public Health will serve as ACCIDDA’s project managers.

“The goal is to provide reliable modeling and response tools for public health agencies to respond to various types of potential outbreaks, like Mpox or COVID-19,” Powers said. “One of the innovations our center plans to focus on is finding ways to take projections at the national or state level and make them relevant to smaller communities, particularly those that are rural or marginalized who need a customized public health approach.”

“This new center and network will build on the tremendous amount of work and collaboration to apply disease modeling and analytics for direct public health response and decision-making,” said Truelove. “We are extremely excited to continue adding to our toolkit through innovation, increasing our workforce through training of new experts and building capacity across the U.S. through expanded engagement with public health organizations.”

EPA funding bolsters Gillings research on PFAS in outdoor air

Researchers in the Department of Environmental Sciences and Engineering at the UNC Gillings School of Global Public Health have been awarded a \$799,833 grant from the United States Environmental Protection Agency (EPA) to develop new analytical methods that can improve the detection of emerging air pollutants, including per- and polyfluoroalkyl substances (PFAS). The research will combine online, high-resolution chemical ionization mass spectrometers with air- and particle-phase sampling techniques.

“Even though PFAS pollution is now recognized to be a major water issue here in North Carolina, less is known about the types, sources and fates of PFAS in N.C. air,” said **Jason Surratt, PhD**, principal investigator and professor of environmental sciences and engineering. “We do know that air emissions of PFAS from certain sources in N.C. can contaminate private wells from precipitation such as rain. The first two years of this new study will be focused on developing and optimizing our new, real-time analytical methods to detect PFAS in air within N.C. In the last year of this study, we will sample outdoor air near Chemours in Fayetteville, N.C., in order to understand what types of PFAS might be emitted into N.C. air and chemically transformed during meteorological transport to downwind communities.”

The study, “Development of High-Resolution Chemical Ionization Mass Spectrometry Methods for Real-Time Measurement of Emerging Airborne Per- and Polyfluoroalkyl Substances (PFAS),” will be led by a team of researchers that includes Surratt, Professor and Chair **Barbara Turpin, PhD**,

and Associate Professor **Zhenfa Zhang, PhD**, from the Gillings School; and Yue Zhang, PhD, and Sarah Brooks, PhD, from Texas A&M University.

This award is part of more than \$4.7M in research grants to seven institutions for research to advance measurement and monitoring methods for air toxics and contaminants of emerging concern in the atmosphere.

Hazardous air pollutants (HAPs), often referred to as air toxics, are a subset of air pollutants known to cause cancer or other serious health effects. There is extensive evidence that low-income communities and communities of color are disproportionately exposed to air toxics.

“While we have made great strides in reducing air pollution, there is still more work to be done to protect public health,” said Maureen Gwinn, principal deputy assistant administrator for EPA’s Office of Research and Development. “This research will improve our ability to measure air contaminants and find better strategies for reducing them in the environment.”



“Even though PFAS pollution is now recognized to be a major water issue here in North Carolina, less is known about the types, sources and fates of PFAS in N.C. air.” **Jason Surratt, PhD**

Students reflect on 'once-in-a-generation' UN Water Conference

The first United Nations (UN) Water Conference in almost five decades represented a once-in-a-generation opportunity for international cooperation around management of a resource that the UN's secretary general, António Guterres, referred to as "our world's lifeblood." A group from the UNC Water Institute attended, including three students of the UNC Gillings School of Global Health who share their experiences below.

The conference, co-hosted by the Netherlands and Tajikistan, brought the global water community together on March 22-24 in New York City with the aim of understanding, managing and taking action toward shared water goals. Attendees tackled five themes: Water for Health; Water for Sustainable Development; Water for Climate, Resilience and Environment; Water for Cooperation; and Water Action Decade.

In the face of inevitable pressures from urbanization and global climate change, among other factors, organizers envisioned the UN 2023 Water Conference as a catalyst for progress toward the UN's 17 Sustainable Development Goals, adopted by member states in 2015 as a "shared blueprint" for international cooperation that prioritizes the health of people and the environment. Safe water and sanitation are vital preconditions for efforts to promote health, adequate nutrition, gender equity, education, industry and the environment.

Three doctoral students in the UNC Gillings Department of Environmental Sciences and Engineering attended the conference and reflect on their experiences and takeaways from this landmark event.

NOTE:
The UNC Water Institute recently completed its 14th annual conference October 23-27: waterinstitute.unc.edu/wh2023

Hanna Brosky: Water is everyone's business.



"As a doctoral student with a deep interest in water engineering, I was eager to attend this conference to gain a better understanding of the global state of water, meet experts in the field whom I respect, and listen to

agenda items for the future generations of water researchers and engineers to uphold. The UN in New York City opened its doors to the global water champions, and its seats filled with indigenous representatives, UN delegates, country diplomats and leaders, and spokespeople for both nongovernmental and government organizations. I listened to many delegates of low-income countries discuss problems with affordability of water services and securing appropriate solutions that are not only for developed societies. I heard a focus on putting action to local challenges and the importance of concentrated, systematic solutions that would be inclusive to all, especially women, children and marginalized people. The closing plenary ended with a statement reinforcing how critical it is to include water in all government priorities and the assertion that 'water is and should remain everyone's business.' I left the UN conference having witnessed the world fighting these wicked problems in water, and I am excited to get to work."



Silvia Landa: Commitments to the Water Action Agenda



The UN Water Conference brought together various stakeholders to generate voluntary commitments and catalyze actions on water-related issues. Participants discussed various issues,

shared key lessons, proposed strategies and made commitments to the Water Action Agenda. My research is related to government actions, and the conference was of great interest to me because it gave me the opportunity to witness country representatives making commitments at a UN meeting. Some countries made specific and tangible targets whereas others made broader commitments. It was also fascinating to see countries use this opportunity to raise awareness about their specific issues and seek support from other nations. It would be intriguing to evaluate countries' commitments further to track which ones follow through with their promises.

Lucy Tantum: Prioritizing water as a public health problem



The integration of water development with the strengthening of health systems emerged as a conference priority. As a student in an environmental engineering program that is

housed within a public health school, I am already familiar with the ways that the environment intersects with health. Still, it was exciting to see country governments recognize safe water as an essential component of health service delivery. At the UNC Water Institute, I am involved in research to evaluate and improve access to water, sanitation and hygiene services in health care facilities. The UN Water conference led me to consider how my research can support governments not just in developing water infrastructure, but also in improving access to safe and high-quality health care more broadly.

Next steps for the water agenda

The Water Action Agenda, with over 830 commitments, is a global pledge for a water-secure world, and we believe our research can aid governments in their water and health initiatives. Upcoming UN events will build on the conference's outcomes.

Discussions from the UN Water Conference carried on at the UNC Water Institute's 14th annual Water and Health Conference in October, where more than 2,200 stakeholders, not just governments, exchanged insights and strategies for their water and health commitments.

NC youth leaders champion vaping prevention at inaugural UNC-led summit

On July 24-26, more than 35 youth leaders and adult participants gathered at the UNC Gillings School of Global Public Health for the inaugural North Carolina Youth Vaping Prevention Summit. The Youth Summit was funded by proceeds from the settlement reached between JUUL Labs, Inc. and the state attorney general.

The Youth Summit connected these high school advocates with leading researchers at UNC-Chapel Hill and experts at the N.C. Department of Health and Human Services (NC DHHS) Tobacco Prevention & Control Branch to learn about current efforts in vaping prevention, develop advocacy skills to use in their communities and build coalitions with other youth leaders in N.C. The youth leaders were joined by adult participants who work in vaping prevention or have a vested interest in youth engagement. Participants across the state traveled to Chapel Hill, from the mountains of Clay County to the beaches of New Hanover County, to harness the potential of youth advocacy and work towards a vape-free future for all N.C. teens.

The Youth Summit kicked off with a video message from N.C. Attorney General Josh Stein, who helped

secure the \$40 million JUUL settlement funding, underscoring the importance of evidence-based community action in efforts to prevent the harms of vaping among the state's future generations.

"JUUL helped cause the youth vaping epidemic in N.C., and it is fitting that the JUUL Settlement funds are invested in supporting young people's engagement in community-based action to reverse the harms that e-cigarettes have caused in our state," said **Kurt Ribisl, PhD**, Jo Anne Earp Distinguished Professor and Chair of Health Behavior at the Gillings School.

An estimated one in seven U.S. high school students reported current use of vape products, according to the Centers for Disease Control and Prevention (CDC). This means that nearly all students, parents, educators and those with teens in their lives have encountered e-cigarettes.

Peer advocacy is a powerful tool in the fight to prevent and address the health harms of e-cigarettes among young people.

"Youth are highly aware of issues in their communities that public health experts are actively working on," said **Inara Valliani, MPH**, event co-organizer and program specialist at UNC's Vaping Prevention Resource (VPR). "Opportunities like the N.C. Youth Vaping Prevention Summit elevate young people's lived experiences and encourage them to inform effective change by building connections with local experts and decision-makers."



Uniting informed youth and seasoned experts, the summit focused on innovative strategies for vaping prevention.

"Youth walked away from the Summit feeling energized and empowered to bring all of the information learned to their communities," said **Caroline Ritchie, MPH**, project manager for the Communicating for Health Impact Lab at the UNC Hussman School Journalism and Media. "Having a cross-generational Summit allowed not only the youth to learn from researchers and practitioners but allowed us to hear directly from youth about the issues that are important to them."

Following the Youth Summit, participants were connected to their local N.C. Regional Tobacco Control Managers to support continued action and carry forward the momentum they built during the Summit. Participants will also have the opportunity later this year to apply for funding to support the action plans they devised at the Youth Summit.

VPR is a leading, non-commercial resource that provides communities with the latest vaping prevention resources and policy solutions. UNC researchers at the Lineberger Comprehensive Cancer Center, Gillings School and Hussman School founded VPR following years of collaboration on research to determine which communication, advocacy, community health and policy approaches are most successful in the fight against vaping and tobacco use. VPR guidance is used by local and national public health agencies, and their strategies shaped many of the workshops offered to participants in the Youth Summit.

We created VPR to vastly increase the research and dissemination of vaping prevention messages

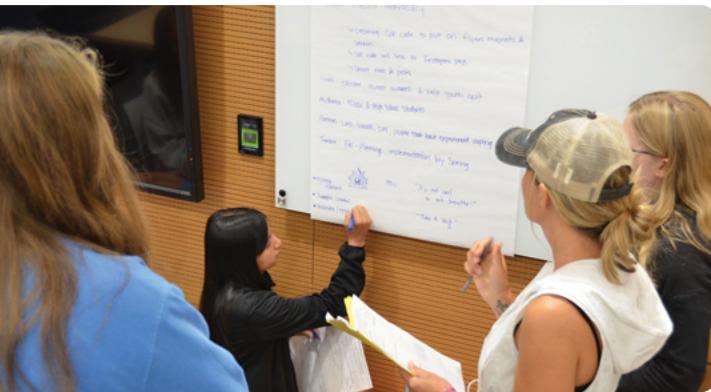
and policy solutions," said **Seth M. Noar, PhD**, **James Howard** and **Hallie McLean Parker** Distinguished Professor at the Hussman School. "Hosting this youth summit helps us take those efforts to the next level by directly engaging with both youth and adult leaders in this space."

Many additional members of the VPR team were involved in planning the Youth Summit, including **Hannah Prentice-Dunn, MPH**, program director at Lineberger. They were joined by local public health experts from NC DHHS, the Poe Center for Health Education, Counter Tools, the Center for Black Health & Equity, the Rural Community Action Program and the Orange Partnership for Alcohol & Drug-Free Youth.

Among the experts was **Ray Riordan, MS**, Director of Local Policy and Program Development for the NC DHHS Tobacco Prevention & Control Branch.

"We know that 90% of adults who smoke begin this deadly addiction at the age of 18 or younger," Riordan said. "As a result, youth are important champions of change who can encourage their peers to be vape-free, urge lawmakers to take action and stand up to the vape industry's predatory marketing." 

To learn more about the current landscape of vaping prevention, please visit VPR at vapingprevention.org. If you or a teen you know wants to quit vaping, text VAPEFREENC to 873373 to access free 24/7 coaching and support over text.



Youth leaders and public health experts discuss vaping prevention strategies at the inaugural summit.



Gillings School plays lead role in new Lancet Commission on Evidence-Based Implementation in Global Health

The Lancet has announced a new Commission on Evidence-Based Implementation in Global Health that aims to improve how life-saving and life-enhancing interventions are put into practice around the world, especially in low- and middle-income countries (LMICs). The UNC Gillings School of Global Public Health is playing a leading role in the Commission, serving as its Secretariat.

“We have made great progress in using our best science to create life-saving and life-enhancing interventions, and it is now time to do likewise for putting them into practice.” **Herbert Peterson, MD**

Advancements in science and technology have led to innovative health solutions that could help achieve the United Nations’ Sustainable Development Goals (SDGs), including the goal of health and well-being for all. But putting these interventions into practice equitably, sustainably and at scale is a huge challenge – one the new Commission strives to overcome through establishing the vision for evidence-based implementation in global health and developing a blueprint for achieving it.

In so doing, the Commission will strive to improve both the generation and the full and effective use of evidence for implementation. One approach the Commission will use is including the perspective of the implementers for whom the evidence is intended, including policymakers, program managers, front-line providers and funders. The Commission will work to ensure that these implementers are involved in the generation and use of the evidence.

The new Commission will be chaired by **Herbert Peterson, MD**, the William R. Kenan, Jr. Distinguished Professor of maternal and child health and obstetrics and gynecology at UNC-Chapel Hill and director of the World Health Organization (WHO) Collaborating Center for Research Evidence for Sexual and Reproductive Health. His co-chairs are Joy E. Lawn, MBBS, PhD, from the London School of Hygiene and Tropical Medicine and Queen Dube, MBBS, PhD, from the Ministry of Health of Malawi. **Joumana Haidar, DBA**, deputy director of the WHO Collaborating Center at the Gillings School, will serve as the lead for the Secretariat. The Commission will be supported by an advisory group of experts in global health implementation that will provide input from the perspectives of key stakeholders on the needs for evidence-based implementation, including how best to build and sustain a global movement to meet those needs.

“We have made great progress in using our best science to create life-saving and life-enhancing interventions, and it is now time to do likewise for putting them into practice,” Peterson said.

The Commission’s priorities will include determining the current state of implementation evidence, the evidence that will be most helpful for improved implementation going forward, and how best to generate this evidence and support its full and effective use in practice.

“With this Commission, we have a wonderful opportunity to work toward achieving justice in implementation in global health. We will create a roadmap for building and applying the science needed to ensure that our most promising health innovations reach all those they are intended to serve,” Peterson said. 📄

The Commissioners of the Lancet Commission on Evidence-Based Implementation In Global Health are Hanan F. Abdul Rahim, Niveen M. E. Abu-Rmeileh, Richard M. K. Adanu, Ross C. Brownson, David A. Chambers, Peter Cherutich, Elwyn Chomba, Komatra Chuengsatiansup, Queen Dube, Cyril M Engmann, Dean L. Fixsen, Patricia J. Garcia, Lisa R. Hirschhorn, Joy E. Lawn, Susan Michie, Joanna C. Moullin, Per Nilsen, Sania Nishtar, Obinna Onwujekwe, David Peiris, David H. Peters, Herbert B. Peterson, Stefan S. Peterson, Shankar Prinja, Helen Rees, Barbara K. Rimer, Jo Rycroft-Malone, Peter Waiswa, Judith N. Wasserheit, and Dong Roman Xu.

Learn more about The Lancet’s Commission on Evidence-Based Implementation in Global Health in The Lancet Letter at [thelancet.com/journals/lancet/article/PIIS0140-6736\(23\)00870-X/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(23)00870-X/fulltext)

Training the next generation of leaders



Laura Linnan, ScD
Senior Associate Dean, Academic and Student Affairs

A total of 900 students graduated from the Gillings School this year, marking the largest public health cohort ever at UNC-Chapel Hill. In addition to planning and implementing the largest commencement and reception in Gillings history, the teams in academic and student affairs have celebrated a number of achievements this year.

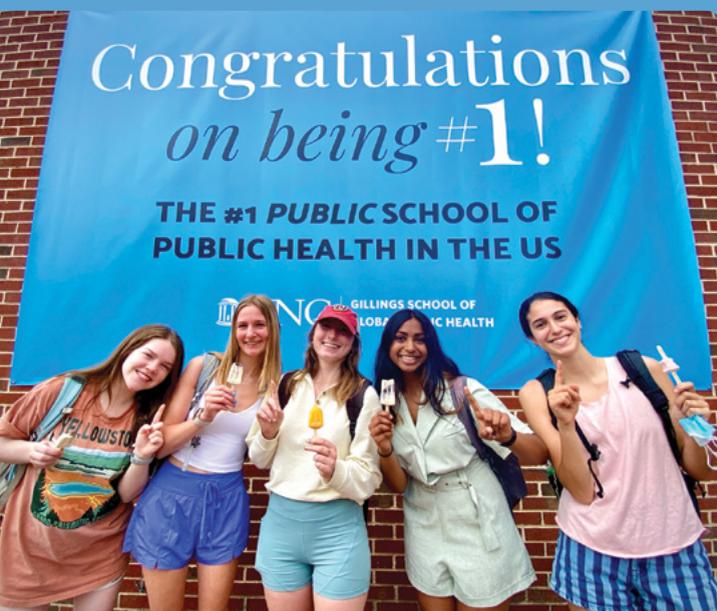
A team led by leaders in student affairs and instructional technology launched Gillings Navigate, a new online system to strengthen the connection between students, academic coordinators and resources in the School and the University. Students can use Gillings Navigate to make an appointment; instantly

schedule a meeting with an academic coordinator or other academic affairs professionals; and review their degree plan and advising reports, notes and other information provided by their academic coordinator. Students can set alerts and reminders and connect to wellbeing, career, funding and academic resources and support.

The School has implemented an external seasonal reviewer program for the Master of Public Health (MPH) degree to bring in community partners and public health professionals/alumni perspectives in the admissions process. We have also improved admitted student communication with the launch of the interactive MPH admitted student portal and a customized campaign highlighting various aspects of the Gillings community.

Drs. Laura Linnan and Rebecca Fry led a revision of the Gillings Appointment, Promotion and Tenure (APT) Manual, approved by the University in June. They also organized peer faculty mentoring panels to help enhance faculty mentoring of students in the School.

In preparation for a successful Council on Education for Public Health (CEPH) reaccreditation in 2024, Gillings is participating in the self-study process which includes a peer review visit taking place **Oct. 9 – 11, 2024**. You can view the accreditation timeline and leadership on our website: sph.unc.edu/resource-pages/accreditation



Permanent faculty
240

Permanent staff
415

Graduates/year
900

Grads with job or continuing education

98%

Fall 2023 student enrollment

2,284

Overall admit rate

44%

(Graduate admits excluding MPH@UNC/ Graduate applications excluding MPH@UNC)

Admissions yield

42%

(Graduate new enrollments excluding MPH@UNC/Graduate admits excluding MPH@UNC)

52%
North Carolina residents

40%
Domestic students from non-white communities

37%
Domestic MPH@UNC students from underrepresented non-white communities

12%
International students

27%
Distance learners

24%
Domestic students from underrepresented non-white communities

The Gillings MPH practicum

The Gillings MPH practicum gives students an opportunity to use their training in a professional public health setting.

~414 students produced

830+ practicum products for

360+ partner organizations' use and benefit



46%
of practica primarily benefited people in N.C.

65%
of practica primarily benefited historically excluded populations

New solutions for pressing public health issues

The Gillings School's research portfolio comprises impactful work with a cells-to-society approach, from basic science to implementation and policy change. The research is highly collaborative, including faculty, staff and students within the School and across UNC and beyond. Our research is both local to N.C. and global. Reducing health inequities and working with communities are important components of our research, and student engagement is a foundational training element.

Some of our funded projects include:

- Developing a robust and efficient strategy for censored covariates to improve clinical trial design for neurodegenerative diseases – *Tanya Garcia, PhD/Biostatistics*
- Rural Water Quality and Risk Perception Near Solid Waste Landfills – *Courtney Woods, PhD/Environmental Sciences and Engineering*
- Engineering Research Center for Precision Microbiome Engineering (PreMiEr) – *Jill Stewart, PhD/Environmental Sciences and Engineering*
- Investigating SARS-CoV-2 transmission dynamics in jails to address the COVID-19 public health emergency – *Sara Levintow, PhD/Epidemiology*
- Tobacco Center for Regulatory Science – *Kurt Ribisl, PhD/Health Behavior*
- Using simulation to project long-term colorectal cancer (CRC) outcomes attributable to clinic-based screening interventions – *Kristen Hassmiller Lich, PhD/Health Policy and Management*

- Systems-Aligned Precision Health for Longevity and Healthy Aging with Type 1 Diabetes – *Anna Kahkoska, PhD/Nutrition*

Examples of health equity projects:

- Leveraging Hispanic/Latino diversity to map and characterize cardiovascular disease loci – *Misa Graff, PhD/Epidemiology*
- Promoting Environmental Justice and Health Equity in Perinatal Health Research – *Rebecca Fry, PhD/Environmental Sciences and Engineering*
- Piloting a multi-level intervention to promote viral suppression among transgender women living with HIV – *Clare Barrington, PhD/Health Behavior*
- Meds & Eds: Evaluating (in)equity in the Economic and Community Impacts of Academic Medical Centers on Small and Mid-sized Metros – *Arrianna Marie Planey, PhD/Health Policy and Management*
- Healthy School Meals for All in North Carolina – *Jessica Soldavini, PhD/Nutrition*



Iris Trujillo (left) and Walter Friday (right) in the Nutrition Research Institute discuss an experiment with doctoral student Evan Paules (center). (Photo by Alyssa LaFaro)



#1 public school of public health for NIH funding (#4 overall)

Number of awards (2022-23)

497

Funding per faculty PI

\$911K

Public health is global health



Suzanne Maman, PhD
Associate Dean for Global Health

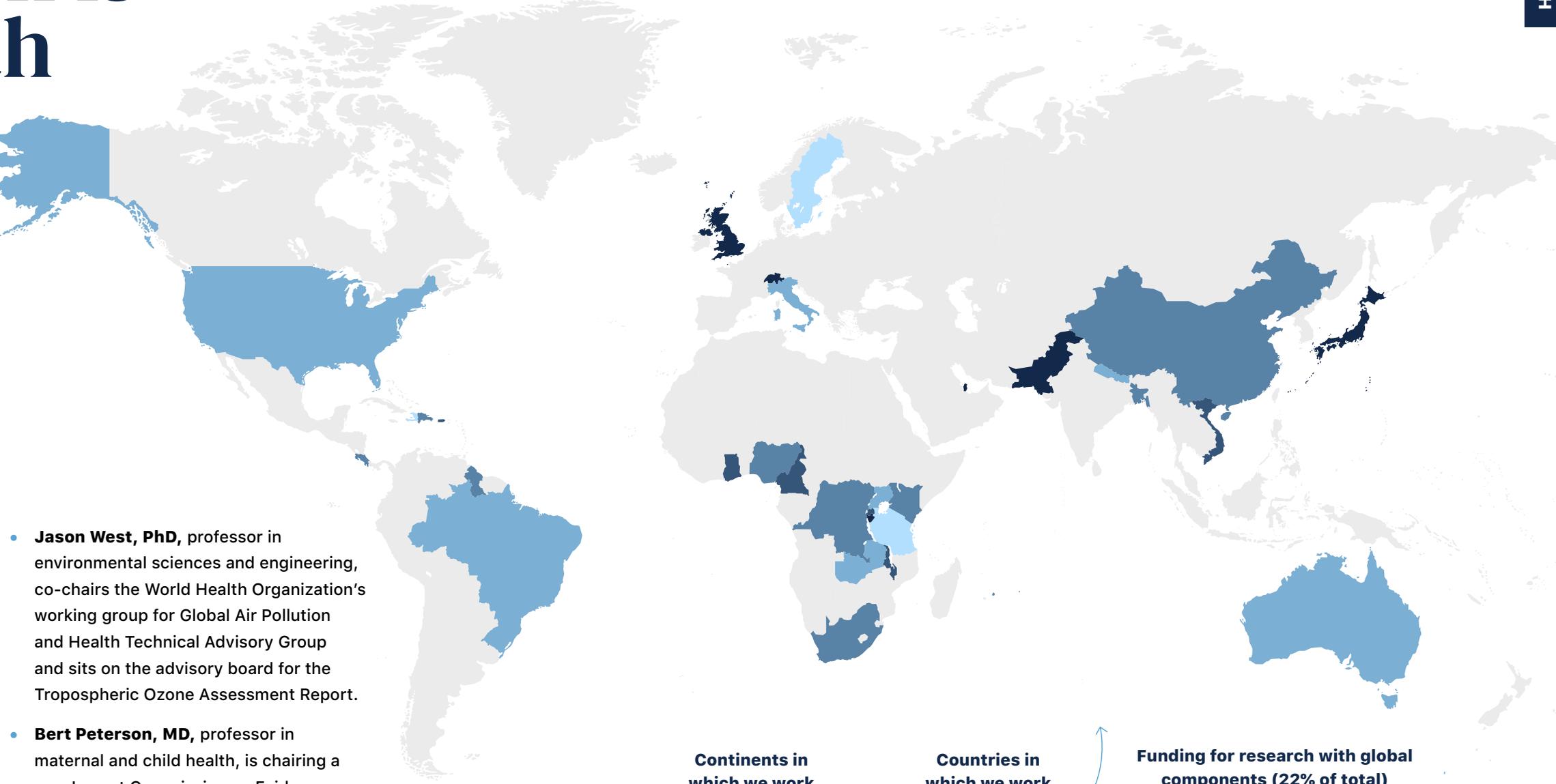
Our global health work impacts policy and programs locally and around the world. Our community is collaborative and supportive of those who want to partner to address complex public health challenges or come to Gillings to build their careers in global health.

Highlights from this year's work in global health:

- 20 students blogged about their experiences in 11 different countries
- Held first ever Gillings International Student Orientation during orientation week
- Started new Gillings International Graduate Student Association to represent international students at the school
- Hosting the School's first ever Fulbright-in-Residence this year! *(Read more on p. 32)*
- Humanitarian Health Initiative (HHI) continues its country-level service projects in Gaza, Syria, Sierra Leone and Nicaragua, as well as with several major global organizations, such as WHO and MSF.
- Supported 12 HHI student interns

Impact of our global faculty's work:

- **Abigail Hatcher, PhD**, assistant professor in health behavior, helped add violence prevention to maternal health policy and co-wrote a presidential declaration that altered legislation in South Africa.



- **Jason West, PhD**, professor in environmental sciences and engineering, co-chairs the World Health Organization's working group for Global Air Pollution and Health Technical Advisory Group and sits on the advisory board for the Tropospheric Ozone Assessment Report.
- **Bert Peterson, MD**, professor in maternal and child health, is chairing a new Lancet Commission on Evidence Based Implementation in Global Health. The commission aims to improve how life-saving and life-enhancing interventions are put into practice around the world, especially in low- and middle-income countries (LMICs). *(Read more on p. 18)*

This year, we plan to identify and plan for changes to our global health curriculum based on our own assessment and that of our external advisors.

<p>Continents in which we work</p> <p>5</p>	<p>Countries in which we work</p> <p>32</p>	<p>Funding for research with global components (22% of total)</p> <p>\$38M</p>
<p>International students</p> <p>282</p>	<p>Countries of origin</p> <p>46</p>	<p>64 students received travel awards totaling</p> <p>\$50K+</p>

Innovating to transform health

The Gillings School continues to develop a culture of innovation aimed at accelerating public health innovation from ideas through implementation for faster solutions and greater impact in the world.

Gillings Innovation Labs (GILs), the flagship program of the \$50M Gillings Gift, have invested almost \$8M and returned over \$154M in follow-on funding and over 230 peer reviewed journal articles. GILs that closed in FY2023 established the preeminent causal inference research lab, promoted the science of causal inference for the improvement of public health and deepened the understanding around COVID-19 vaccine hesitancy in rural South Africa in order to increase uptake and access. Proposals are now being solicited for the next GIL round: "Harnessing Generative Artificial Intelligence in Public Health."

Offered every other year, the Gillings School Pitch Competition is a competition and learning experience rolled into one that allows student venture teams to pitch to a live panel of judges a service or product which addresses a public health issue with a viable solution. Teams are paired with entrepreneurial coaches to help them refine their pitches in the weeks leading up to the competition. The 2022 competition featured 12 interdisciplinary teams each led by a Gillings student. The first-place award went to "HIV/AIDS Network for Disaster Survivors (HANDS)" which ensures continuity of care for people with HIV (PWH) who evacuate during hurricanes.

The 2020 Pitch Competition second place winner, LiRA, has also been refining their technology and securing funding.

Budding student entrepreneurs of color were paired with entrepreneurial mentors in the three-month long 2023 Entrepreneurs of Color Mentorship Program. All students were welcome! Mentors and mentees met at least once per month to discuss their entrepreneurial goals and broaden their networks. Interest in the program nearly quadrupled over 2022 with 44 student applicants from eight departments, including six degree programs. Ten mentees were matched with six Gillings-affiliated mentors. Dyads identified goals and met together monthly for three months.

The Gillings School has a robust pipeline of faculty innovators working to translate their work out into the real world for impact. Five teams completed the NSF Regional I-Corps Program, an experiential learning program using customer discovery and allowing teams to quickly assess their inventions' market potential. Four teams completed the UNC Venture Catalyst Fellows program which pairs budding faculty innovators with professional students developing entrepreneurial skills to advance translational goals.

New venture updates:

- **SNP Therapeutics**, with founder Steve Ziesel, MD, PhD, is poised to be a leader in the precision nutrition market segment thanks to the unique way they develop their genetic tests and algorithms to identify the genes/variants contributing to various health issues and disease, including fatty liver disease, male infertility, prenatal nutrition and sarcopenia. Expecting revenues in Q4 2023.
- The **Couplet Care** team — with Kristin Tully, PhD, and co-inventors Catherine Sullivan, MPH, Alison Stuebe, PhD, and Carl Seashore, MD — is scaling their patented medical infant

bassinet to improve patient safety and clinical efficiency while promoting positive mother and infant health outcomes. They have raised \$1.05 million in investor capital and were recently awarded a \$2 million SBIR Phase II grant. They are currently in the process of raising an additional \$3 million in Series A funds for product completion, testing and market entry.

- The **Sorbenta** team, led by Orlando Coronell, PhD, and Frank Leibfarth, PhD, continues to further de-risk and scale up their patented technology that removes PFAS (forever chemicals) from drinking water.
- The **CollectiveGood** team, led by Sean Sylvia, PhD, and Joe Tucker, MD, PhD, developed a working prototype of their platform which harnesses collective clinical intelligence to power medical AI testing and validation and is now seeking pre-seed investment. [📄](#)



GILs awarded
\$7.7M

GILs follow-on research funding received
\$155M

GILs scholarly publications
233

Startups formed FY12-23
55

SBIR/STTR funding awarded FY23
\$1.7M

Flexible funding to maximize impact

The **Dean's Acceleration Fund** gives the dean of the UNC Gillings School of Global Public Health resources to capitalize on emerging opportunities with the potential to make an outsized impact locally and globally.

What can the Dean's Acceleration Fund do?

By providing flexible funding that can be directed toward new opportunities to advance public health within and beyond the Gillings School, the Dean's Acceleration Fund is supporting our contributions to the practice of public health, our global health education program and inclusive excellence within our community.

Practice. "Practice" means putting public health learning and knowledge to work through policies and programs that support vibrant communities and healthy people. With funding from the Dean's Acceleration Fund, the Gillings School is establishing practice hubs across North Carolina where students and faculty work with communities to address local needs. These long-term partnerships can support significant improvements to health locally and develop strategies that can be applied in other communities around the world. Along with the Gillings School's new *Department of Public Health Leadership and Practice*, these hubs are a key element of the School's six-year plan to enhance the practice of public health.

Global Health. Our signature philosophy is that there is no difference between global health and public health. The Dean's Acceleration Fund has enabled a review of our global health curriculum to further invest in this philosophy and ensure students in this concentration have the skills to advance the health and well-being of populations in diverse global settings — including the ability to develop, implement and evaluate public

health programs and projects that are aligned with local culture, contexts and resources.

Inclusive Excellence. The inclusive excellence framework reflects a striving for excellence in higher education; seeks to infuse diversity into recruiting, admissions, hiring, curriculum, administrative structures and practice; and embraces newer forms of measuring excellence, emerging research on learning and brain functioning and more nuanced accountability structures. With support from the Dean's Acceleration Fund, the inclusive excellence team is re-envisioning how to achieve inclusive excellence at the Gillings School.

Our School was founded to bring public health to people – in N.C. and beyond – and our faculty has experience doing just that. By providing the flexibility to channel that experience into high-priority areas, the Dean's Acceleration fund can support continued leadership at the forefront of public health.

Contact email.sph@unc.edu for more information or visit go.unc.edu/Acceleration to contribute to the Dean's Acceleration Fund.



In pursuit of equity



Kim Ramsey-White, PhD
Associate Dean for Inclusive Excellence

Since its inception in 2019, our Inclusive Excellence Action Plan has guided the Gillings School in its focus on reducing inequities and fostering inclusion, both within the school and in our work with partners. As with any plan, evolving goals and metrics have created an opportunity to update the plan in order to envision, without limitations, a fully inclusive Gillings School.

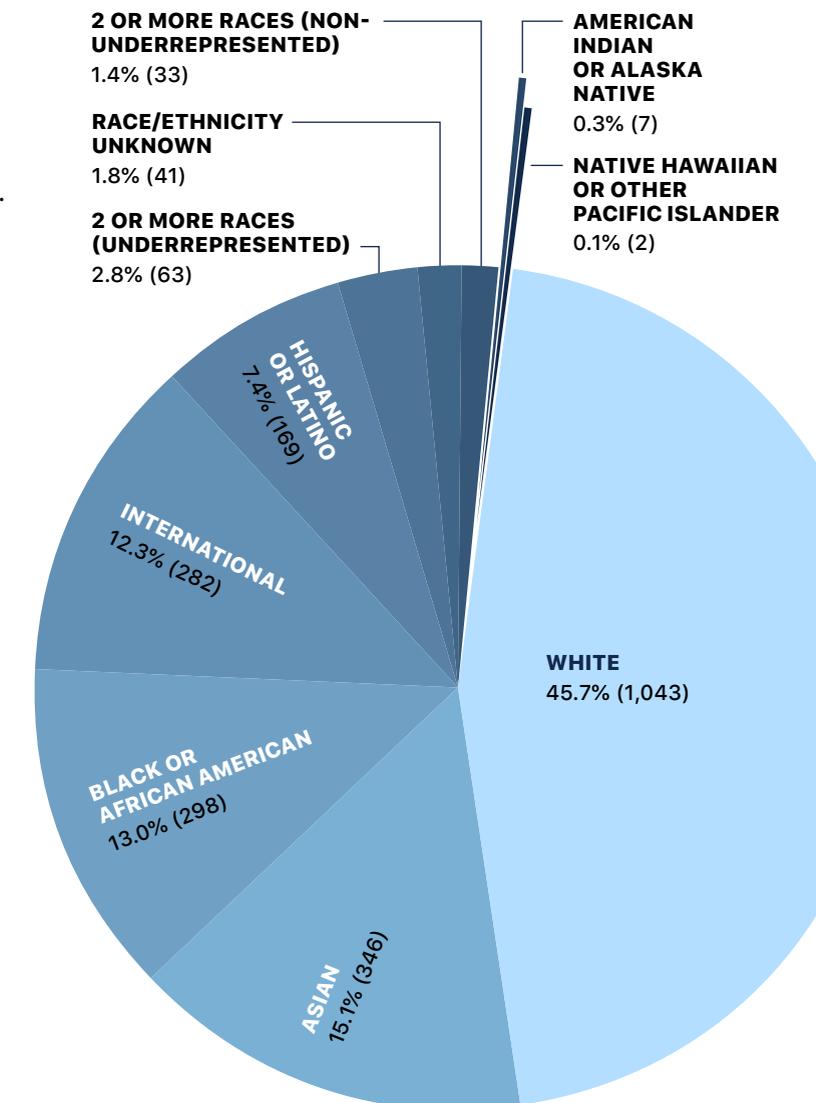
With input from faculty, staff, students and alumni, the inclusive excellence team, led by Associate Dean for Inclusive Excellence Kim Ramsey-White, PhD, MPH, is working to review and update the Inclusive Excellence Action Plan that centers community and collaboration for 2024 and beyond.

Additional highlights from their work this year:

- Worked with Advancement to recruit and engage three new members of the Inclusive Excellence Alumni Board. Mr. Brian Ellerby, Dr. Leandris Liburd and Ms. Makayla Cunningham have all agreed to serve on the board.
- Met with department heads and respective equity and inclusion chairs to assess equity initiatives across the School and established a monthly Equity Co-Chairs Meeting in which all departmental co-chairs doing equity work and affiliated students can discuss initiatives from their own departments and build a community of sharing resources, ideas, and funds across departments and the School at large.
- Resumed Community Conversations after a hiatus from Spring 2021 to Fall 2022.

- Conducted the Fourth Annual Inclusive Excellence Summer Symposium, titled "TAR Heel Approach: Training, Access and Respect to Improve Accessibility in Veteran, International and Disabled Communities." The training's goal was to shed light on accessibility issues for underrepresented groups at the School and utilize the units and resources we have at UNC via resource sharing.
- Worked with human resources to build in inclusive training requirements that are tied to HR competencies so that the requirements are more relevant to individual faculty or staff jobs. This allows for people who are at varying levels in their inclusive excellence journey to focus on trainings that are specific to their learning and familiarity with inclusive practices. 🏠

Fall 2023 student demographics



Putting public health to work in the community



John Wiesman, DrPH, MPH
Associate Dean for Practice

The Gillings School has approved a six-year strategic plan for practice, which will place the School in an excellent position to capture resources from new federal public health investments and maximize benefits for communities as we make a meaningful difference in health equity and outcomes.

Highlights from our work in practice:

- The School has been selected by the CDC to develop a five-year work plan for a Public Health Emergency Preparedness and Response coordinating center, to be established in 2024. The work will be for a center in Region 4, which would serve as a resource for training, strategy and technical assistance to public health agencies in Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina and Tennessee.
- The Gillings School has reached out to health department directors in Cumberland, Durham, Halifax and Jackson counties to explore interest in forming a public health partnership hub relationship. "The Hub" is a Gillings initiative to provide high-intensity support and resources for 5-10 years with a limited number of well-defined communities with critical equity opportunities.

- The N.C. Public Health Academic Practice Network is an emerging opportunity for public health program leaders at colleges and universities in N.C. to convene. The Academic Practice Network aims to collaborate on how to better serve public health practice in N.C., further practice training and experience opportunities, and foster a sense of community to advance academic practice work.
- The Practice Advisory Committee brings leaders from public health and other sectors together with Gillings School leaders to create a community of practice and catalyze collaborations, strengthen the workforce, sustain N.C.'s public health infrastructure, exert influence in support of the public health system and identify practice-based research opportunities.
- The newly established Practice Coordinating Committee brings together representatives from across the Gillings School to achieve the practice vision.
- In the next year, our goals include establishing a Public Health Collaborative, integrating student practicum with the community Hubs, formalizing of the Academic Practice Network and creating a work group to support funding. 

Stay up to date with strategic plan initiatives using the progress tracker: gillings-projects.unc.edu/practice/plan

Hours of practice-based activities in 2022

27,583

Practice activities with student collaboration in 2022

701

Community-based practice activities in 2022

610

Dr. Amy Joy Lanou is poised to be the next faculty director of the North Carolina Institute for Public Health in November.



PRACTICE

NCIPH welcomes a new director!

The North Carolina Institute for Public Health (NCIPH) has recommended to the UNC-Chapel Hill Chancellor and Board of Trustees that **Amy Joy Lanou, PhD**, be appointed the next faculty director of NCIPH, and she has agreed to accept the appointment when officially tendered by UNC-Chapel Hill.

The appointment process is anticipated to be complete in time for her to start in November. Lanou's faculty appointment will be in the UNC Gillings Public Health Leadership Program, where she currently has an adjunct professor appointment.

Lanou currently serves as the executive director of the North Carolina Center for Health and Wellness at UNC-Asheville. The center "works to impact policy, build capacity and ignite

community initiatives by working through a web of cross-sector relationships organized around building healthier places throughout the state."

In addition to this role, Lanou serves as the UNC-Asheville lead for the UNC-Asheville — UNC Gillings Master of Public Health Program, which is a place-based MPH concentration that "centers people and their communities as the catalyst for transforming systems to promote well-being for all."

Lanou is a tenured professor of nutrition in UNC-Asheville's department of health and wellness. She also served as chair of that department from July 2014 to January 2020.

Welcome, Dr. Lanou! 

Introducing our first Fulbright Scholar-in-Residence.



“Think globally.”

This fall, **Lusajo Kajula, PhD**, Tanzanian international scholar in health behavior and psychology for adolescents and families, has joined the Gillings School as the school's first Fulbright Scholar-in-Residence.

In her role, Kajula will use her experiences in global health to educate students on an “ecological model,” which helps public health experts make sense of the social, political and individual factors that influence health behaviors. She will also continue her work in adolescent and reproductive health while collaborating with the Durham County Health Department on ways to engage local communities in public health programs and outreach.

“Moving public health to global health means understanding that we are all the same,” Kajula said. “The goal, whether through teaching or community engagement, is to help people think globally. You don’t always have to start something afresh if somebody else has done it already – you can adapt it to fit your needs.”

Her work at Carolina is also the extension of a decades-long partnership and friendship with Suzanne Maman, PhD, professor of health behavior and associate dean for global health at the Gillings School. The two first began working together on HIV prevention research in Dar es Salaam, Tanzania, in 1999. Their collaborations have produced funded research and intervention programs on global health topics that include treatment and prevention of HIV and other sexually transmitted infections, intimate partner violence prevention, and adolescent reproductive health – all centralized around regions in Eastern Africa.

“I am thrilled that my friend and colleague, Dr. Lusajo Kajula, is with us on faculty at Gillings for this academic year,” Maman said. “She brings a tremendous amount of experience conducting impactful global mental health research and practice to our school. I am looking forward to the many ways that she will enrich our training, research and practice while she is with us this year and beyond.” 📄

Read full article at go.unc.edu/kajula-think-globally

Improving processes and fostering data-driven decision-making to support our mission.

Data-driven improvement

Deytia Lima-Rojas, PhD, is always in search of ways to make things better. As assistant dean for strategic analysis and business intelligence (SABI), she serves as chief data officer and leads the School's SABI unit. Her team provides leadership with critical data to evaluate and improve the processes that help the Gillings School remain the number one public school of public health.

“If there is something to improve, I aim to improve it,” she said, “whether that be processes, visualizations, surveys, reports, quality, systems or even connections among School units. It’s best when people can work in teams where we each contribute our own expertise and connect the dots to influence change and improvement. Perfection is continuous improvement. Creating that culture is my ultimate goal.”

SABI’s mission is to serve as a key resource to support the School’s core mission and strategic initiatives. The team provides substantive, accurate and understandable data, information and services to all Gillings units and external stakeholders to support strategic planning, evaluation and decision-making across the school. Their data analysis is vital in continuous quality improvement: a process that involves understanding which questions leadership should be asking – and answering – in order to make processes or people within the School work together more efficiently. In addition, the SABI team has created and maintained more than 100 Tableau dashboards

and administers the school wide surveys to help the people at Gillings to make data-driven decisions.

“When I was a child, I wanted to be a doctor to heal people,” she reflects. “But I later found I did not have the courage to deal with blood and human lives. In high school, I realized that math and science were my favorite subjects, and I fell in love with data. Now, with my data scientist skills and leadership, I contribute to health by helping our School to prepare future and current public health leaders.”

Lima-Rojas is convinced that people could have a better quality of life if they are informed and make the right decisions. “I always want to encourage people to live better, maybe acknowledging our flaws first and then motivating and reflecting to change our minds to help each other. And this is the same path we follow when analyzing data: identify issues and then propose solutions. The changes for good in our inner circles will impact public health.”

She joined the Gillings School in 2015 after earning her master’s degree in business analytics and her doctoral degree in chemical engineering from the University of Tennessee. Her love of music rivals her love of quality improvement, and when she’s not at work, she can be found singing in the Duke University Chapel Choir or singing, teaching and leading different projects at her home church. 📄



Beyond the numbers



Opportunity in biostatistics is booming in North Carolina and across the nation. Expertise in the analysis of data related to biology and health sciences supports a broad range of activities, from environmental health research and clinical trials of cancer treatments to analysis for litigation, and biostatistics degree holders work in the nonprofit, government and pharmaceutical sectors, as well as at tech giants like Google and Microsoft.

Joseph Ibrahim, PhD, Alumni Distinguished Professor of biostatistics, recognizes the importance of making sure UNC Gillings School of Global Public Health students are well-equipped and marketable so they can make a greater impact in the community. He brings this philosophy into his classroom and his approach to mentorship.

“The name of the game is impact,” Ibrahim said. “What attracts students to biostatistics is not only the connections of clinical trials with applied areas — as well as academic areas — but the potential impact that they can have in the field.”

Pushing students further

UNC Gillings’ Department of Biostatistics is a world leader in statistical research and practice for the purposes of improving public health, progressing biostatistical education and advancing the profession. Ibrahim is determined to support every student in their journey to become successful leaders.

Real-world application is one way Carolina biostatistics students gain the experience needed to become notable in the field. Students get hands-on experience by participating in the methodological and collaborative research conducted by faculty. Aside from being able to work with local entities on research projects that are shaping the future of biostatistics, as the director of graduate studies in the Department of Biostatistics, Ibrahim is in a unique position to help students achieve their goals.

“I love giving advice to students on the best courses to take, a trajectory for finishing on time or working in a particular research area,” said Ibrahim.

Working as a graduate research assistant under Ibrahim, **Xinxin Chen**, who is seeking a Doctor of Philosophy in biostatistics, knows biostatistics is an incredible force in the scientific community and believes Ibrahim is preparing her for a successful future in the industry.

“What I find interesting in the biostatistics field is the ability to apply statistical knowledge to



Professor Ibrahim and doctoral student Chen: Pioneering advances in biostatistics at UNC Gillings.

tackle real-world challenges and make a direct impact on health care and medicine,” Chen explained. “Professor Ibrahim’s mentorship has played a crucial role in shaping my interest in Bayesian statistics and preparing me with a solid background in statistical theory.”

Chen emphasized the tremendous impact Ibrahim has made on her education and even shared that his research was one of the reasons why she chose the biostatistics program at Carolina.

“In the courses I have taken with him, he explained the complex statistical concepts and methods clearly and presented a bigger picture of the topic, as well as how it could be applied to research,” Chen said. “He has also been very supportive and responsive during my work as a graduate research assistant, providing insightful suggestions and resources for solving problems encountered in our research projects.”

Through her work with him, Chen has also acquired a deeper understanding of the field and improved her research and writing skills, which she said will be beneficial for her future career.

For over three decades, with 20 years at UNC-Chapel Hill, Ibrahim’s commitment and rigorous training have led students to esteemed roles in global pharma and biotech firms like Merck, Amgen, and Pfizer. Many have also advanced in the U.S. Food and Drug Administration, National Institutes of Health, and tech giants including Apple.

Read full article at go.unc.edu/ibrahim-beyond

Welcome to Gillings!

We welcome new faculty who bring a wealth of expertise in diverse areas of public health, from men’s health to maternal and child health, epidemiology, and health behavior. Each of them is committed to addressing health inequities and promoting healthier communities through their research and teaching.



Samuel Baxter, PhD, MPH

Assistant Professor of Health Policy and Management

Dr. Baxter’s research addresses men’s health, cardiovascular disease prevention, and place-based disparities. He uses community-engaged research and ecological approaches to identify and interrupt adverse psychosocial and environmental influences on health. Dr. Baxter has expertise in applying quantitative methods and community-engaged research approaches to work with racially diverse populations across various community settings.



Natalicio H. Serrano, PhD, MPH

Assistant Professor of Health Behavior

Dr. Serrano’s research focuses on creating equitable and sustainable environment and policy strategies for physical activity promotion and chronic disease prevention. He utilizes a systems approach to understand inter-related factors and sectors (such as transportation, planning and housing) impacting or being impacted by environment and policy strategies for physical activity. He is particularly interested in understanding and addressing issues related to neighborhood development, racial and economic segregation, gentrification, and displacement. Prior to joining UNC, Serrano was a postdoctoral fellow at University of Illinois Chicago’s Institute for Health Research and Policy.



Kristin Z. Black, PhD, MPH

Assistant Professor of Maternal and Child Health

Dr. Black is committed to utilizing community-based participatory research, mixed methods and racial equity approaches to understand and address inequities in reproductive health and chronic disease outcomes. Her research merges three key components. First, she explores the connections between reproductive health, maternal health and chronic diseases and whether these outcomes differ by race/ethnicity or other social identities. Second, she focuses on understanding what individual-and systems-level factors may hinder or facilitate birthing people’s journey through maternal healthcare services. Third, she is committed to transforming research into action by engaging community stakeholders in implementing and sustaining interventions that tackle health inequities and structural racism.



Shakia T. Hardy, PhD

Assistant Professor of Epidemiology

Dr. Hardy is a cardiovascular disease and social epidemiologist. Her research focuses on identifying social and behavioral determinants of hypertension and cardiovascular disease across the life course, developing interventions to increase health equity, and evaluating the effectiveness and implementation of interventions.

Hardy is currently funded by a K01 grant to develop a peer support intervention to lower blood pressure among Black adolescents. She is also co-principal investigator of the “Equity in Prevention and Progression of Hypertension by Addressing barriers to Nutrition and physical activity” (EPIPANY) study, a cluster-randomized church-based trial testing a peer-led intervention to prevent hypertension in rural, Black adults.

Public health messaging *with heart*

We believe the three pillars of good communications are clarity, empathy and understanding. These attributes are of particular importance in public health communications. By employing multiple channels to reach multiple audiences, it's incumbent upon the communications and marketing unit at Gillings to see these pillars as guideposts in all our communications. For example, this year saw the culmination of a 12-month overhaul of the Gillings website. In this case, bringing greater clarity meant creating a better user experience by cutting down the number of clicks, enabling users to get the information they sought more quickly and efficiently.

Our media relations practice continues to grow, as does our team. As the number one public school of public health, we have a responsibility to show empathy for our community by understanding

the health of our state and our region, taking action to improve health. Trends in higher education communications continue to evolve, and we must remain current and our content must remain accessible by highlighting local, regional and global needs. The new challenges of AI and mis- and disinformation present a new level of complexity in our efforts to provide accurate information.

Finally, one of the ways we foster understanding is through our public health communications fellowship, which has doubled in size to four master's students. Through the fellowship, we aim to address the challenges inherent in successful public health messaging by building a pipeline of graduates, well-versed in communications tactics and strategies. 📖



Amma Agyemang-Duah and Rachel Morrow, Master of Public Health students, are the first-ever public health communications fellows at the Gillings School of Global Public Health. With support from ARPA funding, they collaborate with North Carolina's Region 7 Local Health Departments to enhance public health communication skills.

Media Mentions

Gillings experts have been quoted or mentioned across a range of publications.



Top articles



Latinas are the targets of abortion misinformation. Providers, advocates are pushing back.

NBC News | August 5, 2022



Move to electric vehicles could save nearly 90,000 lives in US by 2050, study says

CNN | June 7, 2023



A Beauty Treatment Promised to Zap Fat. For Some, It Brought Disfigurement.

The New York Times | April 16, 2023



XBB, BQ.1.1, BA.2.75.2 — a variant swarm could fuel a winter surge

Washington Post | October 18, 2022

Top Gillings news



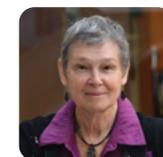
Lin's New England Journal of Medicine article makes case for children's COVID-19 boosters

September 15, 2022



Bivalent COVID-19 boosters effectively protect against new omicron subvariants

April 12, 2023



Gillings School honors and mourns 'force of nature' Dr. Jo Anne Earp

November 19, 2022



UNC Gillings: The number one public school of public health in the US

April 25, 2023

Dr. Bonzo Reddick addresses the root cause of health issues

What's your role in public health?

I'm an alumnus of the Gillings School and the district health director for the Coastal Health District of the Georgia Department of Public Health (DPH). I am responsible for overseeing DPH activities for eight counties in southeast Georgia, and I also serve as the chief executive officer of the boards of health for those eight counties.

Can you describe your focus area in one sentence?

As the district health director, I don't have a specific focus. Our district has more than 30 DPH programs that cover a wide variety of issues — the investigation of infectious disease outbreaks, HIV services (through our Ryan White clinic), food service ratings for restaurants, emergency preparedness (e.g., for hurricanes), beach water testing and advisories, regulation of body art (tattoos and piercings), rabies prevention and animal bites, and the Women, Infants and Children nutrition program — just to name a few. In my academic role as a professor of community medicine at the Mercer University School of Medicine, my focus is on health equity. I have a specific interest in health care for the homeless, harm reduction, and the prevention of HIV and hepatitis C infection using population-level approaches.

What brought you to public health?

Honestly, UNC-Chapel Hill's Gillings School of Global Public Health did. After I completed my family medicine residency, I began taking classes part-time as a way to improve my understanding of epidemiology and enhance my critical appraisal of scientific literature. I took an elective on health disparities with Dr. Vijaya Hogan, and I was hooked. I ended up getting UNC's Interdisciplinary Certificate in Health Disparities and then graduating with a Master of Public Health degree in 2014.

Since then, I've been steadily gravitating closer to public health. In all my clinical experiences after public health school, I was always thinking about how to address the underlying issues or fix the systemic causes that had created the health problems in question. During the COVID-19 pandemic, I was invited to become a member of the Health Equity Council for the Georgia DPH, and this exposed me to the true range of everything that public health covers.

When our state's commissioner called to tell me that our district health director was retiring and that I should apply for the job, it was a no-brainer.



Dr. Reddick: Husband, father of three, and passionate runner who's completed three Half Ironman triathlons.

Please share a career pivot in public health

As I mentioned, the pandemic was a huge moment for my full pivot toward public health. The clinic that I was working for — JC Lewis Primary Health Care Center — is a federally designated Healthcare for the Homeless site. We were tasked with providing testing services, vaccination and personal protective equipment for people experiencing homelessness.

That was when I saw first-hand how team-based, interdisciplinary work can address not just medical issues but also the social determinants of health. Through collaborating with community members, social workers, community advocates and the local homeless authority, I experienced some of the most meaningful work of my life. I still loved caring for individual patients, but I felt that I could have a larger impact by addressing the root causes of health issues.

Who are you when you're at home?

I'm a husband and a father of three. I run, on average, 25-30 miles a week, and I've been thrilled that my other four family members have all fallen in love with running since the beginning of the pandemic. I love being outdoors — especially running with my kids on the weekends — and I also love doing triathlons. I've completed three Half Ironman triathlons (1.2-mile swim, 56-mile bike, 13.1-mile run), and I hope to complete a Full Ironman triathlon (double those distances) before I turn 50. That means I have less than four years to go! 🏃‍♂️

Read more interviews in The Pivot series at sph.unc.edu/comm/the-pivot

Moracco elected UNC Chair of Faculty

Beth Moracco, PhD, professor in the Department of Health Behavior and associate director of the UNC Injury Prevention Research Center, was elected UNC's Chair of the Faculty in the 2023 election. She succeeded Mimi Chapman and began her term on July 1.

Moracco has been a faculty member at the Gillings School since 2008, where she has held several important leadership positions and been acknowledged as an outstanding teacher, mentor, practitioner and researcher. She is also an alumna of the Gillings School, where she earned both her Master of Public Health and doctoral degrees. Her research and practice are centered on violence prevention with a focus on gender-based violence in both local and global settings.

She was honored with the University's Edward Kidder Graham Faculty Service Award in 2021 in acknowledgment of her dedication to the reduction and prevention of domestic and other types of gender-based violence. Skilled in intervention development and evaluation, Moracco is an expert in community-based engagement, in which stakeholders are active participants in the design and evaluation of interventions that meet their community's needs.

"As Chair, my priorities will be to protect and enhance our efforts toward building an inclusive, equitable environment for Carolina's faculty, staff and students; safeguard the integrity of the role of faculty in decision-making; and advocate for full and timely information-sharing in matters that concern faculty," Moracco said in her statement.

UNC's chair of the faculty has the following duties, in addition to those that may be determined by the chancellor or Faculty Council:



- To serve as chair pro tempore of the Faculty Council and of the General Faculty,
- To make an annual report to the Faculty Council on the state of the faculty, and
- To represent the chancellor in all academic matters whenever requested by the chancellor.

If you wish to contact Professor Moracco regarding faculty governance-related matters, please email facultychair@unc.edu or call the Office of Faculty Governance at 919-962-2146.



READ OUR SPRING 2023 ISSUE OF CPH

The Spring 2023 issue of Carolina Public Health magazine explored why "The World Needs Public Health" – because our foundation is rooted in the values necessary to design evidence-based solutions, adapt to adversity and collaborate for the common good.

In this issue, read about:

- The long run: Public health behind the scenes
- How racism gets beneath the skin
- Misinformation/disinformation's impact on public health
- A public health approach to reproductive care

... and so much more!

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