

PROGRESS REPORT

Milken Institute School of Public Health

THE GEORGE WASHINGTON UNIVERSITY





LETTER FROM THE DEAN

GREETINGS, GWSPH COLLEAGUES AND FRIENDS,

The last year allowed us to reflect on our school's history and celebrate our 25th Anniversary. The first quarter-century of our story was one of growing strength and influence, perseverance, growth, innovation and ambition. Our 25th was an opportunity to assess where we've come from, the landscape we face, and now we can redouble our efforts to maintain our leadership in academic public health. We rose in the rankings across many programs, but there is plenty of room for growth.

While we experienced many celebratory moments, this year also brought several disquieting Supreme Court decisions on the use of race in college admissions; student debt; and striking down the constitutional right to abortion in Dobbs v. Jackson Women's Health Organization. This decision overruled both Roe v. Wade and Planned Parenthood v. Casey, returning the power over abortion rights to the states for the first time in almost 50 years. The negative impacts on the health of pregnant people are already evident.

We survived successive waves of the COVID pandemic largely due to our public health system. Now, there is a massive hunger for public health education. GWSPH continues to create new opportunities for teaching a global audience and to think creatively about how we can educate across boundaries and on new platforms. Now is a time for us to be fearless and enterprising. We must engage deeply in our local community, in DC, nationally and globally. If we are strengthening public health systems — to think beyond our walls, to be determined, and to take risks — there is no limit to what we can accomplish.

Last year, we also celebrated the 60th anniversary of our Biostatistics Center and its many achievements in the prevention of diabetes and prioritizing maternal and fetal health. The pandemic uncovered the vast shortcomings of U.S. public health data systems. In response, we have created a world-class health data science program to educate new generations of leaders in the field. The faculty, staff and students at the Milken Institute School of Public Health tackle complex problems — from systemic racism, to the consequences of limiting access to reproductive health, to the battle against antimicrobial resistance, to reducing maternal and child mortality to the public health challenges created by climate change — these are deeply rooted public health problems. Fortunately, our faculty's bold thinking and fearless research push boundaries and result in significant public health outcomes in our community, our country, and our planet.

Our superb MHA program and new DrPH program are training the next generation of public health and healthcare leaders. During our year of celebrations, many of our alumni and former colleagues returned to the school. Each has reminded me that we are all students, learning each day from each other and our peers in the field, and filling me with pride for all of their accomplishments.

As we close our year of celebrations marking the 25th Anniversary of the School, I can see how far we have come as a young school — and the bold and ambitious path we have charted. I end this milestone year with tremendous appreciation for the road we have



traveled and great optimism for the opportunities ahead. We must confront the key challenges threatening the health of individuals and communities worldwide. In doing so, we must be willing to challenge assumptions, think creatively, and prepare our students to be agents of change as they advance in their careers and reach into the communities in which they live.

Cheers to 25 more years of making communities healthier and safer everywhere!!

Lepon R. Goldman

Lynn R. Goldman, MD, MS, MPH Michael and Lori Milken Dean

CELEBRATING 25 YEARS of Advancing Public Health



Mike MIlken and GWSPH leadership celebrating at 25th Anniversary Party

The Milken Institute School of Public Health celebrated 25 years of excellence in public health education, research and practice throughout the year, beginning in May 2022, and culminating at the 2023 Commencement.

"These celebrations matter," said GWSPH Dean Lynn Goldman at the opening ceremony of the celebration in May 2022. "I'm very aware that I am standing in front of you in this space on the shoulders of those who came before me and because of their dedication and perseverance," noting that it is essential to remember the founders and visionaries "who created the only school of public health in our nation's capital."

Since opening its doors 25 years ago, the Milken Institute School of Public Health has advanced public health with its innovation and ability to develop the next generation of public health leaders, researchers, clinicians and educators.

A highlight of the year's celebrations included the 25th Anniversary Celebration on October 20, 2022, where more than 1,300 students, faculty, staff, alumni and friends gathered to toast the quarter-century of success in public health. During the evening's remarks, Mike Milken told the crowd that it is not the building but the people inside who make it so renowned.

"You not only made a home for the students, the professors and research, but

in many ways, you've made this school a place that allows each of you to change the world for the better," said Milken, chair of the Milken Institute.

Throughout the night's celebrations, GWSPH faculty led a series of "Only at GWSPH" talks, showcasing what makes the school unique and successful. Dean Goldman remarked that the world-class faculty is the "not-so-secret ingredient."

• Assistant Professor of Global Health and Director for the Center for Community Resilience Wendy Ellis showed a documentary that

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first 25 years of our school, but what remains is an unwavering commitment to excellence in education, research and practice — a history personified in this beautiful crowd assembled tonight — you are all a symbol of our collective success and guides for our bright future," Goldman said. "I believe that together we are going to bring about change in the health and well-being of our community or city or nation and the world."

"Many things have changed in the

demonstrated how structural racism in policies, practices and programs creates and sustains racial trauma and inequity.

- Associate Professor Cindy Liu and Professor Lance Price, both of Environmental and Occupational Health and the Antibiotic Resistance Action Center, led a discussion on how to stop a superbug.
- Professors of Epidemiology Amanda Castel and Alan Greenberg discussed the HIV epidemic by reflecting on the past while looking ahead at aspirations for the future.
- Associate Professors of Prevention and Community Health Donaldson Conserve and Derek Dangerfield II held a panel on the power of social networks and how to address health misinformation.
- Associate Professor of Exercise and Nutrition Sciences Allison Sylvetsky and Jennifer Sacheck, Sanofi Professor of Prevention and Wellness and chair of Exercise and Nutrition Sciences, discussed diet and why people should care about what they eat.

Today, more than 14,000 alumni of the school use their experience and expertise to fight disease and epidemics, advocate for social justice, health, and well-being, identify and address social and environmental determinants of health and contribute to health policy-making. "Our enrollment has grown more than three times the size in 25 years," said Dean Lynn Goldman. "Since 2007, research has grown eight-fold and the endowment has increased from \$300,000 to \$100 million today."

While it has only been a quarter-century of the university's 200-plus years, GWSPH has elevated GW's reputation around the globe with its meteoric rise to success, which was cause for celebration for the entire university community.

"In fulfilling the George Washington University's mission of teaching, research, patient care and service, we endeavor to be distinguished and distinguishable," former President Mark S. Wrighton said. "The Milken Institute School of Public Health is a prime example of our aspirations. Every day, its faculty and students are creating new knowledge and translating research to practice or policy to improve the health of all individuals."

During the celebration on October 20, the Dean presented lifetime achievement awards to eight individuals who were vital to the school's founding and extraordinary growth.

These honorees included Founding Dean Dick Riegelman; Founding Director of the graduate program in Biostatistics and Epidemiology John Lachin; former Chair of the Department of Epidemiology Alan Greenberg; alumna, GW Board of Trustees member and nationally recognized health policy and equity advocate Roslyn Brock, M.S. '89; Founding Chair of the Department of Health Policy Sara Rosenbaum; former Dean Ruth Katz; Distinguished Professor Emeritus Richard Southby; and Dean's Council Chair Ken Moritsugu, M.D. '71, the first Asian American surgeon general of the United States.



Scan to watch a video celebrating the school's 25 years of impact.



COVID-19: A Wake-Up Call for the Future

BY MIELLYN FITZWATER BARROWS

In March 2020, what was anticipated to be a brief hiatus from our habitual routines transformed into an enduring, global cessation of life as we knew it.

> As GW departed for spring break, we unwittingly bade farewell to the familiar socioeconomic landscape, plunging instead into the uncharted territories of a burgeoning pandemic. Far from being a transient hiatus, the imminent crisis marked the advent of a new era dominated by an unknown pathogen: the novel coronavirus. This pandemic did not merely disrupt; it fundamentally altered the fabric of societal structures, making our eventual return to normalcy an exercise in adaptation and resilience.

> With a death toll that climbed and a pervasive sense of insecurity that lingered, COVID-19 instilled fear, precipitated societal alterations, and forever changed our perception of normal. Yet within this chaos emerged a catalyst for promising advancements, especially in the realm of vaccine technology, medical access and information sharing.

> In the spring of 2020, Dr. Cindy Liu, M.D., M.P.H., Ph.D., chief medical officer of the Antibiotic Resistance Action Center and Associate Professor of Environmental and

Occupational Health, and of Microbiology, Immunology, and Tropical Medicine, and a team of Milken Institute School of Public Health (Milken Institute SPH) researchers pulled together all of their resources to assemble a lab.

Initially set up in the Science and Engineering Hall as a research study to help protect health care workers, the lab quickly grew into a large-scale testing facility.¹

"The university's public health experts realized that to keep the GW community safe, they would need to start regular testing of students, faculty and staff on campus ... However, commercial labs were expensive and took too long to provide results," says Dr. Lynn R. Goldman, M.D., M.S., MPH, Michael and Lori Milken Dean of the Milken Institute School of Public Health, Professor of Environmental and Occupational Health. "Dr. Liu came to me with the idea of setting up a lab and a very accurate and automated process that would allow us to very efficiently, very quickly turn around



In less than three months, the lab processed almost 34,000 tests for 4,000 people, which helped in keeping campus community transmission rates low. tests on literally thousands of people per day and keep our campus safe that way."

"It went from nothing to a working lab over a seven-week period," says Dr. Liu. "That's extremely hard to do even without a pandemic."

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"It was a very intense period with a small team of people working around the clock and laser focused on a single goal," says Dr. Liu. "We all felt that we had to do our part and that this nearly impossible task was our mission. I know there were other heroic effects around the university and everywhere, but I am very proud of what our small team accomplished."

"I think we can all agree that we have moved on from the initial emergency to the next phase, but we can't agree what we should do during this next phase," Dr. Liu observes. "This is partly because it is difficult to predict what the virus will do, partly because of the politicization of science and partly because it is unclear if our public health systems have actually emerged stronger after all this."

In April 2023, President Joe Biden signed a bill to end the U.S. national emergency response to the pandemic, and the next month, the Department of Health and Human Services ended the public health emergency. However, the novel coronavirus still continues to impact people around the world.

Over the past year, there have been more than 151,000 deaths due to COVID in the U.S. To put that number into perspective, the CDC estimates show that there's an average of 35,000 deaths from influenza per year.³ Since the beginning of the pandemic, the U.S. has seen more than 103 million confirmed COVID-19 cases and more than 1.1 million people have died (almost 7M worldwide). 669 million vaccine doses have been administered thus far in the U.S. and more than 13 billion vaccine doses have been given worldwide.⁴

The advancements in developing the COVID vaccine have paved the way for progress with other mRNA vaccines, including the preventive treatment for malaria.

"The mRNA vaccine technology can really be a game changer," says Dr. Nirbhay Kumar. "We saw how successful this technology was in terms of fighting COVID, and for this study we adapted it and used it to develop tools to combat malaria."

In late 2022, Kumar, Ph.D., Professor in the Department of Global Health at the GW Milken Institute SPH, published a study he and his team conducted looking into using mRNA vaccines to prevent malaria. Found in half the countries in the world, malaria is a disease that kills more than 600,000 people per year. "Malaria elimination will not happen overnight," says Kumar, "but such vaccines could potentially banish malaria from many parts of the world."

The monkeypox outbreak that began in 2022 also brought on the need for an mRNA vaccine. While the mRNA vaccine for monkeypox was developed prior to the COVID-19 pandemic, the testing did receive an emergency use authorization (EUA) from the U.S. Food and Drug Administration for the development of in vitro diagnostics⁵ that had been approved for the coronavirus.

The most recent monkeypox outbreak began more than two years after the start of the COVID-19 pandemic. Despite this, many avoidable missteps occurred. As with the coronavirus, both testing and vaccine scheduling was mainly available online. While convenient for some, this limits access and tends to shut out groups who need these services the most. "The mRNA vaccine technology can really be a game changer," says Dr. Nirbhay Kumar. "We saw how successful this technology was in terms of fighting COVID, and for this study we adapted it and used it to develop tools to combat malaria."

Dr. Carlos E. Rodriguez-Diaz, Ph.D., MPH, and Milken Institute SPH former associate professor and vice chair of Milken Institute SPH Department of Prevention and Community Health authored a 2022 editorial in the American Journal of Public Health outlining the public health issues associated with the response to monkeypox that addresses this disparity. "Several lessons from COVID-19 have not been heeded in the current outbreak. These lessons include the need for timely and disaggregated surveillance data, free or affordable access to testing and vaccines, greater prioritization of populations at greatest risk, and tackling multiple, overlapping structural barriers."

"Another parallel is the challenge of addressing a public health emergency that may disproportionately affect certain groups without stigmatizing or increasing their social vulnerability," says the editorial. "During the response to the COVID-19 pandemic, we saw an increase in racist attacks on Asians and Asian Americans. During the MPX outbreak, we are experiencing the resurgence of historically negative connotations associated with same-sex sexual practices, HIV, sex work, and sexual and gender minorities, as evidenced by the reluctance of health workers to draw blood from men with suspected MPX cases. Homophobia and other forms of discrimination kill. If early prevention and services fail, the impact of this virus will be devastating."

Eliminating access to health care services will only exacerbate this issue and others connected to current and future public health emergencies.

Attacks on protections like the Braidwood Management v. Becerra, whose aim is to challenge the constitutionality of free benefits provided by the Affordable Care Act, directly threaten 75% of preventive benefits for women and children, including key immunizations like COVID-19.

Dean Goldman says, "Maternal and child health is one of the most sensitive indicators of a nation's health. At a time when the nation's maternal and infant mortality rates vastly exceed those of other wealthy nations, it is simply unthinkable that this amount of affordable coverage would be lost."

Published by Geiger Gibson Program, the report, "Braidwood Management v Becerra Could Eliminate Three Quarters of the Affordable Care Act's Preventive Benefits for Women, Infants, and Children," outlines the case and its impact.⁶

"The plaintiffs in this case insist that to satisfy their personal preference for more limited coverage, virtually all Americans, including millions of mothers, infants and children, must lose theirs. Their demands are not only legally unnecessary but unconscionable," says the report's coauthor, Sara Rosenbaum, Emerita Professor developing blood clots, and their babies are more likely to be born prematurely or need intensive care.

Lead author of the January 2023 study "Adverse maternal, fetal and newborn outcomes among 1942 pregnant women with SARS-CoV-2 infection, as compared to 11194 negative pregnancies: A individual participant data meta-analysis" and Assistant Professor of Global Health at the George Washington University Milken Institute School of Public Health Emily R. Smith says, "Despite the very serious health risks, more than 80 countries still do not recommend that all pregnant and lactating women get the COVID vaccine Our findings underscore the importance of COVID-19 vaccination for all women of childbearing age."7

Identifying crucial service gaps and increasing the numbers of Medicaidaccepting doctors will also significantly impact health care providers' ability to tackle the continuing effects of COVID as well as future pandemics as they arise.

of Health Policy and Management at GW Milken Institute School of Public Health.

Regardless of the final outcome of this particular case, these sorts of attacks are more than likely to continue to be waged against the ACA.

While those who use ACA medical coverage could be threatened, there's another threat that is very real and present for all pregnant women regardless of insurance. Research shows that they are seven times more likely to die of COVID if they become infected and have a higher risk of being admitted to the ICU, needing ventilator treatments or This again underscores the crucial part that government health care and coverage plays in maternal and public health and safety. The trouble is that there have proven to be significant gaps in Medicaid coverage throughout the United States. While we have research that shows more than 30% of family doctors do not accept new Medicaid patients, there has not been a clear picture of what areas are most affected.

Enter the Medicaid Primary Care Workforce Tracker. Developed by Professor of Health Workforce Equity and Director of the Fitzhugh Mullan Institute at the GW Milken Institute SPH Patricia (Polly) Pittman and her colleagues, the tracker uses Medicaid claims to identify primary care providers who accept the public health insurance program, map where they are, and determine areas that lack coverage.

A significant piece of data revealed by the tracker is that nearly 44% of counties in the U.S. had zero OB-GYNs that accept Medicaid and the overall number of OB-GYNs that take Medicaid patients is declining.

"We know that many providers do not accept Medicaid because reimbursement is low and the administrative burden is high," says Dr. Pittman. "But ultimately this is a practice that puts profits ahead of patients ... We have to find a way to entice these providers back to Medicaid."

Identifying crucial service gaps and increasing the numbers of Medicaidaccepting doctors will also significantly impact health care providers' ability to tackle the continuing effects of COVID as well as future pandemics as they arise.

One continuing effect of COVID that's receiving little coverage is the prevalence and impact of long COVID. More significantly affecting those who did not receive the vaccine prior to contracting COVID-19, long COVID is experiencing symptoms more than four weeks after becoming ill. These symptoms can include brain fog, fatigue, cough and fever. Project director of GW's Campus COVID Support Team and professional lecturer at GW Milken Institute SPH Megan Landry led a team of researchers to further examine long COVID and its effects on members of the university. Dr. Goldman served as senior author on the study.

"Understanding long COVID among university members is imperative to support those struggling with ongoing symptoms," says Landry. "The findings from this study and others highlight the need to better support people with long COVID. Additionally, we again see the importance of reducing chronic disease and eliminating tobacco use. Prolonged symptoms of COVID-19 are yet another one of a series of adverse health impacts that results from high rates of chronic disease and [from] smoking."

Dean Goldman says, "Our findings also are consistent with previous research underscoring the importance of getting the COVID vaccine and staying up to date with boosters — which protect against a serious initial illness as well as developing long COVID."

It may be a challenge to ensure the population continues to keep up with the COVID vaccines and boosters, however.

"We are dealing with deep societal fatigue," says Dr. Liu. "We just have a lot of tired doctors, nurses, teachers, students, parents, essential workers and more. I don't know how we can fix this, but we should be very motivated to provide tangible, long-lasting support to essential workers and vulnerable populations so they can recover and we can reweave our social fabric.

"The institutions that we rely on to make the most key decisions — governments and corporations — are afflicted by shortsightedness caused by election cycles and quarterly thinking, so it is unclear who will be the responsible adult to prepare us for the future of COVID-19 and other pandemics," says Dr. Liu.

And a lot of would-be "responsible adults" are being fed false information through their social media channels.

There is work being done to counteract this, however, and GW's researchers are leading the way. The study, led jointly by Professor of Prevention and Community



Milken Institute School of Public Health researchers have spent the past few years unraveling the complexities of this historical turning point and examining the transformations induced by COVID-19.

Health at the GWU Milken Institute SPH Lorien Abroms and David A. Broniatowski, associate professor of Engineering Management and Systems Engineering in the School of Engineering and Applied Science and outlined in the article "Empathic Engagement with the COVID-19 Vaccine Hesitant in Private Facebook Groups: A Randomized Trial," takes an unusual approach. Rather than trying to sway thoughts and opinions by strong language and lobbying tactics, the researchers used empathy when creating Facebook messages. They found that by approaching people who had decided against receiving the COVID-19 vaccine with messages full of care and empathy, they were able to correct misinformation and successfully influence recipients into changing their intentions.

"In this study, conducted two years into the pandemic when COVID-19 vaccine views were well entrenched," says Abroms, "we demonstrated that an empathetic approach to health education can change minds about vaccinations.

"Our findings carry immense significance as they demonstrate that the intervention fostered a social norm supportive of vaccination. ... This suggests that social media could serve as a powerful tool to promote vaccination offline, with respondents in our group possibly acting as ambassadors to their own communities. However, additional studies should be done to show whether social media can help increase the number of people who actually go ahead and get the protective vaccine," says Broniatowski. Dr. Liu says, "My hope is that once we move past the fatigue, we can have a massive public-private partnership (crossagency and cross-sector) that can build a fund and a program based on foundational public health principles."

Milken Institute School of Public Health researchers have spent the past few years unraveling the complexities of this historical turning point and examining the transformations induced by COVID-19. They continue to be vigilant and will no doubt be investigating the impacts of new variants that will surely come along. The advancements spurred by the need for a vaccine show lasting health implications that this pandemic has imprinted on societies worldwide and the path that lies ahead. With vaccine advancements, health care access, and the spread of misinformation spurred on by the coronavirus pandemic, it seems clear that we will be dealing with a mix of positive and negative outcomes for years to come.

- I https://gwtoday.gwu.edu/milken-institutesph-launches-covid-19-study-protect-healthcare-workers
- 2 https://ourworldindata.org/covid-deaths
- https://www.cdc.gov/flu/about/burden/index. html#:-:text=CDC%20estimates%20that%20 flu%20has,annually%20between%202010%20 and%202020
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- 5 https://www.fda.gov/medical-devices/ emergency-situations-medical-devices/ monkeypox-mpox-and-medical-devices
- 6 https://geigergibson.publichealth.gwu.edu/71braidwood-management-v-becerra-could-eliminate-three-quarters-affordable-care-acts-preventive
- 7 https://mediarelations.gwu.edu/covid-19during-pregnancy-ramps-serious-health-risks

FIFTY YEARS FORWARD...

A Huge Step Back

BY MIELLYN FITZWATER BARROWS

IT'S BEEN A FULL YEAR SINCE THE SUPREME COURT STRUCK DOWN THE CONSTITUTIONAL RIGHT TO ABORTION IN THEIR RULING OVER DOBBS V. JACKSON WOMEN'S HEALTH ORGANIZATION.

The decision overruled both Roe v. Wade and Planned Parenthood v. Casey to return the power over abortion rights to the states for the first time in almost 50 years, igniting a wave of activism and debate across the country.

Since the decision, abortion has been banned or restricted in 24 states.

"The past year has seen exponential increases in barriers to accessing abortion, a time-sensitive and essential service. These barriers include travel distances of thousands of miles, long wait times for appointments and higher costs," says Julia Strasser, the executive director of the Jacobs Institute of Women's Health and an assistant research professor of health policy and management at the George Washington University Milken Institute School of Public Health (Milken Institute SPH). "The Dobbs decision has not only magnified barriers to accessing abortion but also to other pregnancy-related care, such as management for miscarriages and ectopic pregnancies – and other services like contraception and gender-affirming care are already under threat as well. The ripple effects of these restrictions also critically affect providers of this care, who are experiencing moral distress and moral injury."

Amid these challenges brought to the forefront by the Dobbs decision, there is an urgent emphasis on its broader implications for vulnerable populations. The overarching concerns extend beyond abortion access, including a wide array of reproductive health care services. As these barriers rise, there's a pressing need to understand and address the differential impacts on various demographics. Particularly for marginalized groups, the compounded effects of these policies can result in significant disparities in health outcomes and access to essential care.

"It is imperative that we continue to examine and monitor the impact of these state-level policies on low-income women, women of color and adolescents, as we know that the impact of abortion restrictions is unequal and these groups disproportionately experience adverse consequences," says Amita N. Vyas, associate professor and director for the Milken Institute SPH Maternal and Child Health program and the Center of Excellence in Maternal and Child Health. "It is critical that we measure this impact with a health-equity lens. In addition, we need to create more spaces and opportunities for women to share their stories as this not only deepens our understanding but it's also an effective advocacy tool."



Scan to read an op ed by school faculty and staff on harmful abortion policies. One alternative avenue for providing abortion, a pill called mifepristone that can terminate pregnancy, has come under attack by having its Food and Drug Administration approval threatened.

In March, Strasser and Ellen Schenk, research associate at GW's Fitzhugh Mullan Institute for Health Workforce Equity, published an essay in Health Affairs addressing this issue. "The Dobbs v. Jackson Women's Health Organization U.S. Supreme Court decision, which removed federal protection for abortion, harms not only those seeking abortions or providing abortions but many others across the spectrum of health care. It also increases pressure on all providers of reproductive health care to stop providing essential services. Given the potential impact of the decision across the reproductive health workforce, it is important to consider new avenues for providing contraception as well as abortion."2

Moreover, mifepristone, a pill that can terminate pregnancy, has come under attack. A Texas judge suspended the FDA approval and invalidated the approval process for the drug. Opening an avenue for taking the approvals of drugs out of the hands of scientists and doctors and putting them into those of the courts and policymakers could have disastrous consequences.

"People are opposed to the use of mifepristone because they are opposed to terminating pregnancy, but the drug itself is actually very safe," says Lynn R. Goldman, M.D., M.S., MPH, Michael and Lori Milken Dean of the Milken Institute SPH, while speaking on the panel "Former FDA Official and Health Experts Discuss Disastrous Implications of Mifepristone Abortion Case hosted by Protect our Care." "Many, many, many dollars are invested in the development of each and every drug that is in the market, and years and years of effort go into being able to not only discover new medications but also to bring them to the FDA for review."

Liz Borkowski, senior research scientist at Milken Institute SPH Health Policy and Management Department, and Strasser wrote the op-ed "A Bad Medication Abortion Decision Threatens the Future Availability of Drugs in the U.S." for Scientific American that states, "This decision [could open] a Pandora's box that could allow the availability of every drug in the U.S. — from vaccines to painkillers — to be based on politics rather than science."³

Dr. Goldman agrees. "People may dislike some of the technologies that are used by vaccine makers, like the mRNA vaccines [which are used to prevent COVID], but feeling uncomfortable about a technology is not the same thing as scientific evidence regarding risk."

Borkowski and Strasser also point out, "The rate of serious adverse events for pregnancy termination is significantly lower than for continuing a pregnancy to term. Furthermore, in a post-Dobbs v. Jackson Women's Health Organization environment, where clinics in a dwindling number of states must care for clients from across the country, offering medication abortion has allowed providers to serve more patients than they could via procedural abortions alone Those with the fewest resources - who, because of systemic racism, are disproportionately likely to be Black and brown women - will be unable to do so and will be



forced to bear children against their will. Given this country's shameful maternal mortality rate, this is quite literally a lifeand-death decision."⁴

"There are reams of data that underlie every drug approval process," says Dr. Goldman, "a multitude of decisions that must be made. And for us to trust the consequences of that review, decisions need to be made by scientific and medical experts who understand those data and can best evaluate them. Those experts are not judges, and they're not courts of law, Maternal physical health in the United States has also been a subject of increasing concern, especially when compared to other developed nations.

and the basis cannot be any basis other than the welfare of the patients and the science behind that. Certainly not on the basis of beliefs and various other systems that might be brought into play."

With the reduction in options that would ensure the health and safety of expectant mothers, there comes an increase in **mental health** issues, which today affect one-fifth of mothers. Half of those affected don't receive professional diagnoses and three-quarters do not receive necessary treatment even when it is covered by health insurance.

This year, GW partnered with the Policy Center for Maternal and Mental Health to assign grades to the states' efforts to aid in maternal mental health. In their assessments, they considered providers and programs, screening requirements and reimbursements, and insurance coverage and payment.⁵

"Because in the United States health delivery is largely overseen by the states,



we knew it was time to give states insight into how they are supporting maternal mental health," says Joy Burkhard, Executive Director of the Policy Center. "With a standard set of measures, states can now benchmark their performance against other states' and compare their own performance year over year."

Under its inaugural review, 32% of states received an F grade. Caitlin Murphy, research scientist at the GW Milken Institute School of Public Health, says, "The results of this first ever grading system are not good, with 42 states receiving a D or below. The highest grade any state received was a B-, and this was in just one state — California — where the Policy Center has indicated that significant recent philanthropic, legislative and advocacy efforts have occurred."

Maternal deaths in the United States have also been a subject of increasing concern, especially when compared to other developed nations. Despite advancements in medical technology and health care infrastructure, the U.S. consistently ranks poorly in maternal mortality rates. The United States has seen an alarming rise in maternal deaths, with stark racial disparities that further highlight systemic inequities. Black women, in particular, face a maternal mortality rate that is approximately three times higher than that of white women. Factors such as limited access to quality prenatal care, socioeconomic disparities and underlying health conditions contribute to these

statistics. Additionally, many states have inadequate systems to comprehensively track and analyze maternal deaths, making it challenging to implement effective preventive strategies. This state of maternal health underscores the urgent need for comprehensive reforms in health care policies, practices, and public health initiatives to safeguard the well-being of mothers across the nation.

The cumulative impact of the Supreme Court's decision in the Dobbs v. Jackson Women's Health Organization case and the attacks on mifepristone represent a seismic shift in the legal landscape of abortion rights in the U.S., bringing to the forefront numerous associated health and societal issues. The very foundation of science-based medical decisions and the commitment to women's health equity are now under scrutiny, underscoring the profound importance of informed, compassionate and evidence-based policy-making.

- I https://mediarelations.gwu.edu/media-tipsheet-gw-experts-available-discuss-dobbs-vjackson-anniversary
- 2 https://www.healthaffairs.org/content/forefront/ prescribing-authority-pharmacists-integral-protecting-reproductive-health-and-rights
- 3 https://www.scientificamerican.com/article/abad-medication-abortion-decision-threatensthe-future-availability-of-drugs-in-the-u-sı/
- 4 https://www.scientificamerican.com/article/abad-medication-abortion-decision-threatensthe-future-availability-of-drugs-in-the-u-s1/
- 5 https://mediarelations.gwu.edu/ inaugural-maternal-mental-health-state-report-cards-released

STATE OF THE SCHOOL



Raise High! GWSPH Is Moving Up

As the only school of public health in the nation's capital, GWSPH has achieved milestone rankings in the nationally recognized U.S. News & World Report Best Graduate School Rankings for Public Health Programs Specialties. Fresh from our impressive accomplishments in 2022, the GWSPH community has once again demonstrated its unwavering commitment to excellence in public health education, achieving a ranking of the No. 12 school of public health in the nation.

Considered a global authority in rankings and consumer news, U.S. News & World Report evaluates graduate programs across numerous disciplines, including public health schools. In the past few years, Milken Institute SPH has steadily risen in this national list of the best public health schools.

Among the standout successes, the **GWSPH Master of Health Administration (MHA) program** has climbed in the rankings, securing the No. 8 spot in the nation (up from No. 12). This remarkable accomplishment marks the first time the program has achieved a top 10 ranking, a testament to the dedication and hard work of both faculty and students. The MHA program offered both residentially and online, continues to produce outstanding graduates who contribute significantly to the field of public health.

This year, U.S. News ranked five departments within public health schools for the first time. All five of our departments ranked among the Top 15 in the country in this inaugural ranking.

The **Department of Health Policy and Management** is No. 7 in the nation! Yet another breakthrough into the Top 10.

Ranked in the top 15 nationwide are No. 13 Environmental and Occupational Health, No. 13 Epidemiology, No. 13 Prevention and Community Health (for social and behavioral sciences) and No. 14 Biostatistics and Bioinformatics.

"These excellent rankings indicate how well respected our programs are throughout this country. They also are a reflection of the profound accomplishments and passion of our faculty, staff, students and alums, as well as the leadership of our department chairs, and the impact of our research and community work," said Dean Lynn R. Goldman. GWSPH turned 25 in 2022, and we also celebrated the 60th anniversary of the MHA program and the 50th anniversary of the Biostatistics Center. It is an excellent testament to our efforts that our public health peers recognized so many of our programs and departments.



Scan to view the schools' rankings by U.S. News and World Report.

New Faculty

Ana del Rio Gonzalez Associate Professor of Prevention and Community Health

Kuan-Lung Daniel Chen Assistant Research Professor of Global Health

Feygele Jacobs Professor of Health Policy and Management

MaryBeth Musumeci Teaching Associate Professor of Health Policy and Management

Catherine Arsenault Assistant Professor of Global Health

Wanda Nicholson Professor of Prevention and Community Health

Emma Stapp Assistant Research Professor of Epidemiology

Jordan Kuiper Assistant Professor of Environmental and Occupational Health

Pramita Bagchi Assistant Professor of Biostatistics and Bioinformatics

Gabby Headrick Assistant Professor of Exercise and Nutrition Sciences

Fouzia Farooq Assistant Research Professor of Global Health

Barbara Kowalcyk Associate Professor of Exercise and Nutrition Sciences

Qing Pan Professor of Biostatistics and Bioinformatics

Faculty Moving Up

PROMOTIONS



Ramin Asgary, Professor of Global Health



Ionut Bebu, Research Professor of Biostatistics and Bioinformatics



Leah Masselink, Associate Professor of Health Policy and Management



Naomi Seiler, Professor of Health Policy and Management



Amita Vyas, Professor of Prevention and Community Health

PROMOTIONS AND TENURE



Michael Long, Associate Professor of Prevention and Community Health



Jennifer Seager was promoted to Associate Professor of Global Health



Emily Smith was promoted to Associate Professor of Global Health

TENURE



Cindy Liu, Associate Professor of Environmental and Occupational Health



Candice Chen, Associate Professor of Health Policy and Management

2023 Milken Institute SPH Teaching Awards

Every year students in the Milken Institute SPH recommend and vote for faculty members who have made a significant and lasting contribution to their learning and professional growth. The 2023 winners are:

UNDERGRADUATE TEACHING AWARD

Elizabeth Gray, J.D., Assistant Teaching Professor, Department of Health Policy and Management

GRADUATE RESIDENTIAL EXCELLENCE IN TEACHING AWARD

Bart Bingenheimer, M.P.H., Ph.D., Associate Professor, Department of Prevention and Community Health and Director, Health Promotion Program

GRADUATE ONLINE AWARD

Seble Frehywot, M.D., M.H.S.A., Teaching Professor, Department of Global Health and Department of Health Policy Management

UNDERGRADUATE STUDENT PROFESSOR OF THE YEAR (CHOSEN BY GW STUDENT ATHLETES) Kyle Levers, Ph.D., Department of Exercise and Nutrition Sciences

Mike Milken Receives Honorary Degree

Mike Milken received an honorary doctorate of science from George Washington University at the 2023 Commencement on the National Mall. Mr. Milken was honored for his efforts to accelerate the Milken Institute School of Public Health's quality and impact, proactively and effectively find cures for diseases, enhance human health globally, and further the education of finance leaders in developing countries.

"The last time I had the honor to address an audience here on the National Mall was 25 years ago in 1998," Milken said. "We brought together half a million people at the Mall and across the country to call for increased funding for biomedical research. I told the audience that day that previous generations had fought and won wars so we could be free. Our generation's contribution, I argued, should be to expand our commitment to medical research to enable future generations to be free from life-threatening diseases."

Mike Milken's career has been uniquely successful in creating value, whether measured in lives saved, students inspired or jobs created. Mr. Milken's personal approach to philanthropy has made him a friend to George Washington University, an ally in the fight against chronic disease around the globe and an incredible force for good in the areas of education, advancement of public health, and the alleviation of poverty in the past three decades. His life's work exemplifies the power of



philanthropy and strives for all of us to be better humans and live better lives.

"Mr. Milken has had a tremendous impact on public health education and public health research," said Dean Lynn Goldman. "He has personally founded/ co-founded more than a dozen health-focused nonprofits through FasterCures and continues to seed applied medical research through the Milken Institute, the Milken Family Foundation and FasterCures. It has been said that no one has done more to advance life sciences than Mike."

Recognizing Excellence

Dr. Adnan Hyder: 2023 GW Distinguished Research Career Award

Dr. Adnan Hyder, MD, MPH, PhD, Professor and Senior Associate Dean of Research and Innovation for the Milken Institute SPH, received the 2023 GW Distinguished Research Career Award. Dr. Hyder also serves as the director of the Milken Institute SPH Center on Commercial Determinants of Health. He was selected because of his significant contributions in research and scholarship to the university and society. For more than 20 years, Dr. Hyder has worked to improve global health in low- and middle- income countries across Africa, Asia, Latin America and the Middle East and pioneered empirical work around health systems, ethics and injury prevention in the developing world. He has conducted studies focusing on defining the epidemiological burden, understanding risk factors, exploring potential interventions, estimating economic impact, and appreciating the socio-cultural correlates of non-communicable diseases around the world. Dr. Hyder joined the MI School of Public Health in 2018.

Dr. Amanda J. Visek Awarded the Joseph P. Dymond WID Distinguished Teaching Award

Dr. Amanda J. Visek was awarded the Joseph P. Dymond WID Distinguished Teaching Award. This award honors faculty members and graduate teaching assistants each year who have demonstrated excellence in teaching and planning with the Writing in the Disciplines (WID) courses. Amanda J. Visek, PhD, CMPC, is an Associate Professor in the Department of Exercise and Nutrition Sciences. Her translational approach to scientific research has focused on the application of pediatric sport psychology to issues of public health, namely improving child and adolescent health outcomes by establishing sport participation as a public health practice through safe, positive and fun physical activity and human movement experiences.

Professor Zoe Beckerman Receives Morton A. Bender Teaching Award

J. Zoe Beckerman was awarded a Bender Teaching Award that recognizes excellent teaching of undergraduate, graduate and professional courses at GW by faculty members. Beckerman is a Teaching Associate Professor and Vice Chair of Academics in the Department of Health Policy and Management. Beckerman's work allows her to focus primarily on her passion for teaching and mentoring students. She works with a range of students from undergraduates through doctoral students in both the residential and online programs. Through her work, Beckerman has experimented with how pedagogical techniques can make or break an individual's learning experiences and finds this work especially important as our student body diversifies. She is also affiliated with the GW Center of Excellence in Maternal and Child Health.

Health Policy Management Students Take First Place in Prestigious Case Competition

Milken Institute SPH students Megan Rapuano, Kaitlyn Apodaca, Sarah Rappazzo and their coach, Dr. Wayne Psek, won first place in the 2023 University of Alabama at Birmingham (UAB) Health Administration Case Competition.

Psek, an Assistant Professor in the Department of Health Policy and Management at Milken Institute SPH, has coached GW teams competing at UAB for eight years. Past teams have come in second and third, but this is the first first-place win for a GW team.

"Of course, we want to win," Psek says, "but really the experience for the students is second to none. The real-world, intellectual challenge is invaluable." Graduate student teams from across the United States and Canada travel to Birmingham, Alabama, every year to present their recommendations before a national panel of judges. It's the most prestigious competition of its kind and presents the most analytical cases, Psek says. Students are given just one month to provide a deep level of detailed analysis. The GW team presented a health care model that included a two-pronged approach to address serious illness and end-of-life care in the suburbs of western Philadelphia. They surpassed a field of 42 teams and successfully responded to a panel of 14 judges to win a cash award of \$12,000.

Why did this particular team take first place? "Individually, they're just really

bright students," Psek says, "but it was their team dynamic that worked really well. They each brought different perspectives and strengths to the challenge."

In other good news, a team of first-year MHA students — Bhavna Sriram, Anish Shah and Andrew Degges — took third place in the 2023 Annual Cleveland Clinic Case Competition in March 2023. Also coached by Psek, they were selected from among 84 team entries, representing 30 MHA programs. And finally, two MHA students, Olivia Ouimet and Nitya Bonda, won first place in the Explorer category of the GW New Venture Competition.

DrPH Program Launches Online Cohort

As part of its mission to train thought leaders and practitioners who will influence public health policy and practice around the world, Milken Institute SPH's Doctor of Public Health (DrPH) program recently expanded to include an online option.

Twenty-four students from 14 states will make up the online program's inaugural cohort, beginning in fall 2023. They will join the more than two dozen students already enrolled in the residential program and, through the program's rigorous curriculum, be prepared for senior-level public health leadership roles.

"The online DrPH program extends the reach of GW's doctoral public health leadership training to tackle tough population health challenges globally," said Program Director Gene Migliaccio.

Launched in 2021, the residential DrPH program is an interdisciplinary leadership training program that delivers practice-based curriculum and applied research to equip students with skills for developing, implementing and evaluating public health programs and policies. Program coursework is flexible to meet the diverse needs of students — many of whom arrive with master's and professional degrees under their belts — and, with the addition of an online component, is now even more attainable for many. "We are so excited about launching a new online DrPH program because it provides a more accessible option for students who might not otherwise be able to attend our residential program," said Jen Skillcorn, director of Milken Institute SPH's Office of Applied Public Health. "We will be able to reach more students and help prepare more public health leaders to be ready to meet the world's pressing public health challenges."



GWSPH Launches Office of Inclusive Excellence

In October 2022, Milken Institute School of Public Health launched the Office of Inclusive Excellence (OIE) in a move to broaden and deepen GWPSH's resources for fostering a welcoming and supportive culture and providing institutional leadership on all matters of diversity and inclusion.

"Our school is already a remarkable place of inclusivity, support and collaboration among faculty, staff, and students. We are fortunate to have been able to recruit Dr. Wanda Nicholson, Professor of Prevention and Community Health and the first Senior Associate Dean For Diversity, Equity and Inclusion, who will lead our new Office of Inclusive Excellence, to support our community in taking the work to a new level and to serve our students, campus, and community to create a greater sense of belonging," said GWSPH Dean Lynn Goldman. "The OIE reflects our commitment to diversity, equity and inclusion in public health and our role as a top school of public health in building a workforce that can address public health challenges that are intertwined with social inequities and injustices."

The OIE will collaborate with departments and individuals across our community to prioritize initiatives that reflect the diversity goals and academic mission of GWSPH. Additionally, the office will be available as a source of diversity-related information, resources and expertise.

At GWSPH, inclusion means creating a working and learning environment where each person can participate fully to achieve success and is valued for their distinctive skills and capabilities. The office aims to create and nurture an environment in which all members of the school community are treated equitably, contribute fully to the mission, and embrace and model the school's values.

"Inclusive excellence is an integral part of our identity, and we believe our success depends on our efforts to cultivate and practice inclusivity, embrace diversity and uphold equity," said Goldman.

Nicholson brings a wealth of experience in developing DEI programs. As the head of the Office of Inclusive Excellence, Nicholson is building on the school's strong diversity commitment and other equity efforts as we continue to advance academically and scientifically. "Helping to build healthier communities through a diverse public health workforce is a priority. Rigorous research in diverse communities helps push forward the next generation of public health leaders. Through the Office of Inclusive Excellence, I can work with the school to establish and nourish future leaders that reflect the beautiful fabric of our country," said Nicholson.

Dr. Wanda Nicholson, M.D., M.P.H., M.B.A., boasts a distinguished career in women's health and medical education. Prior to joining GWSPH, she held a tenured professorship in obstetrics and gynecology at the University of North Carolina, where she also served as the director of the PoWER (Patient-Centered Women's Endocrine and Reproductive Health) Program and director Generalist Reproductive Health Fellowship, contributing to the education and development of specialists in reproductive health. Her extensive expertise and leadership in women's health and reproductive endocrinology established her as a notable figure in the field. Dr. Nicholson also spent over a decade at Johns Hopkins School of Medicine and the Bloomberg School of Public Health, where she served as an assistant and associate professor of obstetrics and gynecology and population, family, and reproductive health sciences.



Meet Our Inaugural Senior Associate Dean for Diversity, Equity and Inclusion

Throughout her career, she assumed leadership roles, including board membership with the American Board of Obstetrics and Gynecology and chairing the American College of Obstetricians and Gynecologists Diversity, Equity, and Inclusive Excellence Workgroup. Dr. Nicholson's research focused on preventing chronic diseases in reproductive-age women and the development of digital interventions for pregnancy and postpartum behavioral counseling. This culminated in her appointment as the vice-chair of the U.S. Preventive Services Task Force in 2022, following her previous role as a member from 2009 to 2013. Dr. Nicholson is a prominent figure in women's health and public health policy, bringing a wealth of experience and expertise to her position at GWSPH.

Undergraduate Program in Public Health: A Year of Continued Transformation

In a remarkable year for the Milken Institute School of Public Health's undergraduate program, innovation, community engagement, and interdisciplinary connection have taken center stage. Despite the challenges posed by the COVID-19 pandemic, the program has not only persevered, but thrived. These sentiments were echoed by Sara Wilensky, Associate Dean for Undergraduate Education, who is "pleased with the level of reengagement this fall both in and out of the classroom."

One of the standout achievements this year is the introduction of the bachelor's program in Health Data Science (HDS), one of the first degrees of its kind. It is an innovative and interdisciplinary degree designed to provide a robust understanding of how data analytics, statistics and machine learning can help address pressing public health challenges. The major has already accepted internal transfers and Milken Institute SPH is looking forward to welcoming incoming first year students starting in Fall 2024.

This year saw a record number of applications and acceptances into the long standing dual degree BS Public Health/ MPH and BS Nutrition/MPH programs. The undergraduate program has also expanded its offerings to non-SPH majors with a new dual degree program in Environmental and Occupational Health (EOH). This program welcomes qualified undergraduates who aspire to earn an MPH in EOH, reflecting the program's commitment to an accessible public health field. "We are hoping to launch additional SPH dual degree programs in the future that are accessible to non-SPH bachelor's students," said Wilensky.

An area where the Milken Institute SPH has excelled in is its focus on community engagement. "Across our majors we are emphasizing hands-on experience and connection with the community," says Wilensky. These are vital component to serving public health. For instance, a new section of the senior seminar course partners with organizations such as the Latin American Youth Center and GW Transplant Institute, offering students opportunities to tackle real-world public health issues. These service-focused seminars cover a range of topics, from nutrition to substance abuse disorders and increasing access to transplants. Servicelearning electives are also offered in the Exercise Science and BSPH programs.

The undergraduate faculty and students have also been recognized for their dedication and expertise. For example, Kyle Levers of the Exercise and Nutrition Department was awarded the GW Athletes Professor of the Year. This was the 2nd year in a row that a Milken SPH faculty member received that honor. Notably, 10 undergraduate students were invited to join the prestigious Phi Beta Kappa honor society, the oldest academic honor society in the United States. The program's close alignment of undergrad and graduate faculty ensures a highquality learning experience, making the undergraduate program truly exceptional.

The undergraduate curriculum prepares students for future practice and study through voluntary programs such as The DC Metro Urban Health Program, which engages undergraduates and graduates in community-serving projects. Further emphasizing the Milken Institute SPH's commitment to service, Wilensky noted that the "focus going forward is helping students lean into all the opportunities here at the school and here in the district."

Now in its second year, the T.E.A.M. (Transition, Engagement, Academics, and Mentorship) Milken mentor program continues to provide vital support to students, including peer mentorship and social engagement opportunities. "We aspire to foster a small-school feel within a larger institution," Wilensky says. This program is a testament to the Milken Institute SPH's unwavering commitment to ensuring that every student is acknowledged and valued. Wilensky emphasizes, the program takes great effort to "know students by name and make sure they know that they are important to us."

Fast Facts for the Undergraduate Program | FALL 2023

MAJORS		
BSPH	405	
EXSC	99	
Nutrition	39	
HDS	TBA	
Total	543	
MINORS		
BSPH	63	
EXSC	7	
EXSC	7	
EXSC Nutrition	7 8	

DIVERSITY OF STUDENTS

Asian	19%
Black	13%
Hispanic	14%
First Gen	
International	1%

GW Center of Excellence Maternal and Child Health



MPH@GW Expands Maternal and Child Health Offerings

Milken Institute SPH recently launched a Women, Youth and Child Health (WYCH) concentration as part of its online Master of Public Health (MPH) program to help meet the growing demand for health professionals in the field of maternal and child health.

The new concentration allows students to explore the social, behavioral and systems-related determinants that are unique to the health and well-being of women, children and families around the world. "The courses in the WYCH concentration have been designed to give students the tools they will need to develop, implement and evaluate programs that can effectively support the health and well-being of women, children and families everywhere," said Amita Vyas, Ph.D., MHS, director of the school's Center of Excellence in Maternal and Child Health (MCH) Program and co-director of the WYCH concentration. "They will graduate with a holistic understanding of health and behavior systems, change models and effective strategies that they can use in their current and future work."

Required courses for students in the WYCH concentration include the foundations of maternal and child health, women's health, global child health, and sexual and reproductive health monitoring. Students will have elective options that include such topics as community health and advocacy, health disparities, and researching violence against women and girls.

"By now being able to engage students online through the MPH@GW program that supports the newly formed WYCH concentration, we are able to extend our resources to our online students," said Nitasha Nagaraj, MPH, DrPH, co-director of the WYCH concentration. "It's our hope that we can bring our MCH residential students and our WYCH online students together to build a future of public health professionals who will ensure that women and girls are healthy and safe across their lifespans."

New Public Health Scholars Program Will Expand Local and State Workforce

Thanks to a nearly \$1.5 million award through the U.S. Department of Health and Human Services' Health Resources and Services Administration (HRSA), Milken Institute SPH recently launched a Public Health Scholars Program (PHSP) that will provide full scholarships to students who are pursuing training and a career in public health at local and state health departments.

Each year of the program scholarships will be awarded to 10 students pursuing a master's of Public Health to provide them with public health training and skill building to prevent, prepare for and respond to recovery activities related to COVID-19, as well as other public health emergencies. As part of the program, students will have access to tailored electives; supplemental training in the areas of preparedness, policy, and the social determinants of health and equity; monthly cohort forums and more.

The scholars program is a partnership with the National Association of County and City Health Officials (NACCHO), which, together with Milken Institute SPH, will provide participants with strong support to identify practice sites and career opportunities at local and state health departments that align closely with students' academic and professional goals and interests.

"As the only school of public health in the District of Columbia and home to

the largest MPH degree program across the country and globally, our ability to reach and support the growth of the public health work force in medically underserved areas across the country is unparalleled," said Jane Hyatt Thorpe, senior associate dean for academic, student and faculty affairs and principal investigator for the program. "With the implementation of this new program, scholarship recipients will be able to complete specific coursework that addresses novel but critical areas of public health and develop relationships with the school's sizable network of community partners."

RESEARCH









ADNAN HYDER SENIOR ASSOCIATE DEAN FOR RESEARCH AND INNOVATION

Q: What has been your office's greatest achievement or rewarding experience?

A: The GWSPH Office of Research Excellence has made remarkable strides over the past five years, helping GWSPH establish itself as a powerhouse in the realm of research in academia. The most striking achievement during this period has been the consistent elevation of our research initiatives' quality and quantity. Since 2018, we have witnessed an impressive 20 – 25% growth across all key research metrics. Notably, we have seen significant expansion in training grants and have successfully undertaken largescale projects, each with budgets exceeding \$1 million, solidifying our position as a driving force in the world of research.

Q: Who in your particular field do you most admire and why (living or dead)?

A: My former mentor, Dr. John (Jack) H. Bryant, was a leading light in the field of global health, and his impact on my journey has been profound. Under his guidance, I first grasped the importance of looking "beyond the patient" during my time in medical school. Dr. Bryant emphasized the need to consider not only the individual, but also the communities, from which patients hail, recognizing the critical role of social determinants of health and the sociological construct of a healthy life. Furthermore, he introduced me to bioethics, with a special emphasis on the principles of equity and social justice. Through his mentorship, Dr. Bryant instilled in me the vital notion that communities and individuals should always remain at the heart of public health work, a lesson that continues to shape my approach to health care, research and well-being.

Q: What is your hope for the future of your field?

A: I hope to see our institution blossom and unleash its full potential, striving to establish itself among the top 10 public health research schools worldwide. In pursuing this ambition, I hope we tackle some of the most pressing challenges in public health, locally and globally. Central to our mission is an unwavering commitment to keeping social determinants of



health, equity, and social justice at the forefront of all our research endeavors. We are dedicated to fostering an inclusive public health research enterprise that accurately represents the rich diversity of our country. Through our doctoral and postdoctoral programs, we endeavor to cultivate a new generation of investigators who will carry forward the torch of innovation and drive meaningful change in the field of public health.



RESEARCH PRODUCTIVITY SOARING

\$82+ million in total reseach expenditures

Nearly 300 proposals submitted to funding agencies by 130+ principal investigators

Nearly 200 donors awarding consortia grants, coordinating center awards and training grants

Nearly 100 Participate in Annual Research Day



GWSPH Research Day 2023

The Milken Institute School of Public Health presents a remarkable human-centered, interdisciplinary research platform that focuses on areas of interest within the community and an opportunity for undergraduate, master's, doctoral, postdoc, research staff, and alumni from SPH to present their outstanding research during a poster session.

This event offers an excellent opportunity for presenters to connect personally with potential mentors and internal collaborators from other schools, colleges, and departments. It aims to build a collaborative space where students, researchers, and faculty feel engaged in fostering research conversations as it develops creative thinking skills and the ability to communicate effectively, analyze information, share stories, and connect with people from diverse cultures, disciplines, and ideologies.

Projects showcased the vast geographic and intellectual territory over which public health research can range. Researchers analyzed factors underlying vaccine hesitancy in Africa; examined the social support networks of Latina immigrant trans women in the Washington, DC, area; and studied the effects of displacement, economic distress and violence against adolescents among Rohingya refugees in Bangladesh. Subjects covered life and death, from the intergenerational transmission of low-calorie sweeteners in breast milk to analysis of the end-of-life values and needs reported by teenagers with cancer.

"Supporting our students' applied learning experiences is central to our mission as they develop creative thinking skills and the ability to communicate effectively, analyze information, share stories and connect with people from diverse cultures, disciplines and ideologies," Dean Lynn Goldman said. "These are the skills our students will take forward as future public health leaders."

From 80 posters on display, a panel of faculty judges from Milken Institute SPH, the School of Medicine and Health Sciences, Himmelfarb Health Sciences Library and GW's Libraries and Academic Innovation (LAI) chose eight winning presentations in four categories. A full list of winners is below: Undergraduate Research First place: Maddie Galerston,

"GRAPE: A Fungal Study"

Second place: Catherine E. Alvaro, "The Fitness, Rest and Exercise for Strength and Health (FRESH) Study: Impact of COVID-19 on Cardiorespiratory Fitness of College Students"

Master's Research

First place: Nikita Vivekanandan, "The Impact of a University Dining Hall on Fruit and Vegetable Consumption Among First-Year Undergraduate Students"

Second place: Janja Kovacic, "Increased Levels of Plasma TNFa in Transgender Women on Long-Term Gender-Affirming Hormone Therapy"

Doctoral Research

First place: Mahdi Baghbanzadeh, "deepBreaks: A Machine Learning Tool for Identifying and Prioritizing Genotype-Phenotype Associations"

Second place: Yashan Wang, "Estimating the Contribution of Food-Animal Escherichia coli Among Bloodstream Infections Globally"

Staff, Alumni and Postdoctoral Research

First place: Yi Cao, "Developing a Small Animal Model to Evaluate and Optimize Vaccine Targeting Transmission of Human Malaria Caused by Plasmodium vivax"

Second place: Eleanor Capozzi, "Acute Sexual Violence Exposure Dysregulates HIV Associated Cervical Immune Biomarkers in Women"

Scan the QR code below to access the Abstract Booklet to review the breadth



of research represented, messages from leadership and acknowledgment from the Office of Research Excellence.



Milken Institute SPH Hosts Summer Institute For 5th Year

Since 2019, the Milken Institute SPH has hosted a Summer Institute, giving GW graduate students and working professionals an exciting opportunity to engage in key and current public health issues and topics.

This past summer was a rousing success as more than 100 GW students and international professionals participated in the Summer Institute in 2023. Participants hailed from as close as the GW Foggy Bottom campus to as far away as Iran and Mali, thanks to the virtual learning opportunities. Topics covered included Understanding Commercial Determinants of Health, The Politics of Public Health Policy: How Leaders Make Decisions, Ethics in Public Health Practice and Policy, Injury and Global Public Health.

The Summer Institute is organized into two one-week sessions in June taught by

leading research and global health faculty. The Summer Institute is directed by Dr. Adnan Hyder, Milken Institute SPH Professor and Senior Associate Dean for Research and Innovation.



Scan to learn more about the Summer Institute

Research Innovation Awards

Catherine Arsenault, Ph.D.

Assistant Professor, Global Health Proposal Title: Assessing Primary Care Utilization Patterns and Quality in Ethiopia Using Routine Health Facility Data and Rapid Phone Surveys

Kuan-Lung (Daniel) Chen, Dr.P.H.

Assistant Research Professor, Global Health Proposal Title: Community Partnership Spectrum: A Process for Developing a Multidimensional Reflective Tool for Use by Community and Academic Partners Seeking to Establish or Assess Power Sharing Practices and Equitable Partnership Dynamics.

Karina R. Lora, Ph.D., R.D.

Teaching Assistant Professor, Exercise and Nutrition Sciences Proposal Title: A Mapping Approach to Understand the

Frequency of Unhealthy Nutrition and Physical Activity Behaviors and Efficacy to Change those Behaviors Among Central American Immigrant Men Living in DC

Julia H. Strasser, Dr.P.H., M.P.H.

Assistant Research Professor, Health Policy and Management Proposal Title: Post-Dobbs Decision-Making About Reproductive Health.

CENTERS & INSTITUTES









From L to R: Professor and Environmental and Occupational Health Chair Susan Anenberg, Senator Tom Carper, former GW President Mark S. Wrighton and Milken Institute SPH Dean Lynn Goldman.

GW Climate and Health Institute: Creating Positive Change for the Planet

Chartered in May of 2021, the GW Climate and Health Institute (CHI) is a university-wide collaboration that prioritizes cross-disciplinary research, training, and action to advance solutions and opportunities that mitigate the harm of climate change on human health. The CHI receives a significant level of support from the Milken Institute SPH and has 15 affiliated GWSPH faculty members, including Director Dr. Susan Anenberg, Professor and Chair of Occupational and Environmental Health. The CHI is co-directed by Dr. Anjeni Keswani, Associate Professor of Medicine, and Dr. Neelu Tummala, Assistant Professor of Surgery, at the School of Medicine and Health Sciences.

Within its first two years, the GW Climate and Health Institute's notable work includes:

• Hosting a half-day symposium in the Milken Convening Center entitled Protecting public health through U.S. climate action: Making sense of the shifting landscape after WV v. EPA and the Inflation Reduction Act. The symposium featured a keynote address from Senator Tom Carper followed by two panels that covered the health and Environmental Justice implications of the Inflation Reduction Act and WV v. EPA Supreme Court ruling, and discussed how we can advance U.S. climate action on multiple fronts to get the rest of the way to a healthy climate.

• Launching a student research fellowship program (CHI Research Fellows). The program supports students conducting interdisciplinary research projects on topics at the nexus of climate and health through a semester-long stipend and affiliated-faculty mentorship. Previous fellows have completed work on a landscape analysis of climate co-benefits resources; a journalists' guide to communicating climate co-benefits; analyzing the connection between climate action network involvement, policy, and air pollution levels; and modeling vector distribution under climatic conditions.

• Spurring the development of the newly launched Concentration in Climate and Health in the Online Master of Public Health program (MPH@ GW). This groundbreaking concentration will train individuals to assess environmental exposures and public health risks associated with anthropogenic climate change and to mitigate these health risks through taking a systems approach that considers crisis phenomena, such as COVID-19, climate-sensitive programming, and public policies.

• New research from GWSPH-affiliated members that explores the relationship between indoor and outdoor air quality during wildfire smoke events (Dr. Susan Anenberg, Professor and Chair of Environmental Health and Dr. Kate O'Dell, Postdoctoral Research Scientist) evaluates the impacts of Hurricane Maria on those living with non-communicable disease in Puerto Rico (Dr. Elizabeth Andrade, Assistant Professor of Prevention and Community Health; and Dr. Carlos Santos-Burgoa, Professor of Global Health) and quantifies the burden of air pollution disparities in the United States (Dr. Gaige Kerr, Senior Research Scientist; Dr. Dan Goldberg, Assistant

Research Professor of Environmental and Occupational Health; and Dr. Susan Anenberg, Professor and Chair of Environmental Health).

The CHI has spurred new research grant funding, including a three-year award from the Wellcome Trust to incorporate air quality and health into the Societal Cost of Greenhouse Gases, an estimate of societal damages from climate change used in regulatory contexts (Dr. Susan Anenberg, Professor and Chair of Environmental Health), a three-year award from the Belmont Forum on wildfire-related air quality risk and natural-focal disease (NFD) risk to Arctic northern community health (Dr. Susan Anenberg, Professor and Chair of Environmental Health; and Dr. Robert Orttung, **Research Professor of International** Affairs), and a cross-disciplinary pilot



grant from GW on health co-benefits of climate change mitigation (Dr. Susan Anenberg, Professor and Chair of Environmental Health; Dr. Robert Orttung, Research Professor of International Affairs; Dr. Nina Kelsey, Assistant Professor of Public Policy and International Affairs; Dr. Neelu Tummala, Assistant Professor of Surgery; and Lisa Palmer, Research Professor of Science Communication).

The CHI has affiliated faculty and staff in the following GW schools:

- Milken Institute School of Public Health
- School of Medicine and Health Sciences (and Children's National Hospital)
- School of Nursing
- Trachtenberg School of Public Policy and Public Administration
- Columbian College of Arts and Sciences
- School of Engineering and Applied Sciences
- Graduate School of Education and Human Development
- GW Law School
- Elliott School of International Affairs
- GW School of Business
- Office of Sustainability



Beyond Flexner Alliance Is Now Social Mission Alliance

In December 2022, the Beyond Flexner Alliance announced its new name, Social Mission Alliance, following an extensive two-year process including focus groups and alliance community member engagement. Social Mission Alliance proudly unveiled its transformation and new, inclusive and relevant name. They will continue to be a part of the Fitzhugh Mullan Institute for Health Workforce Equity based at the Milken Institute SPH.

Toyese Oyeyemi, director of Social Mission Alliance, said, "The change represents so much more than a name; it signifies a call to all of us to move health professions education beyond the legacy of Flexner and towards a fairer, more just system." Oyeyemi said, "It signifies elevating our Alliance's inter-professionalism, one of the strongest assets of our movement. And it signifies a commitment to transform not only health professions education as a system, but also ourselves as an evolving organization."

The Beyond Flexner Alliance was founded in 2015 with the mission to elevate social mission in health professions education by mobilizing and amplifying learners, teachers, community leaders, policymakers and their organizations to advance equity in education, research, service, policy and practice. The social mission of a health professions school encompasses the contribution of the school in its mission, programs and the performance of its graduates, faculty and leadership in advancing health equity and addressing the health disparities of the society in which it exists. The former name, "Flexner," refers to Abraham Flexner, author of a 1910 report highly critical of medical schools that called for adherence to scientific and quality standards. The Alliance has sought to go beyond those precepts by promoting health equity in medical education.

Today the core of the mission remains the same — support all health profession schools to wholeheartedly commit to the role they can play in addressing inequities within the learning environment, the communities they serve and the broader context of society. The new name represents the commitment to social mission in all health professions education, Oyeyemi said.

Looking ahead, Social Mission Alliance plans to explore innovative ways to integrate social mission data with personal and community narratives. In addition, the Alliance will produce tool kits to support advocates in their institutional change and spotlight policies that influence social mission.

"Since its inception, the Beyond Flexner Alliance has played a critical role in supporting people who deliver health services and health promotion to advance health equity," said Patricia (Polly) Pittman, director of the Mullan Institute. "This incredible work will continue with the Social Mission Alliance supporting educators and students to become agents of more equitable health care."



For more information about Social Mission Alliance, visit the alliance website at www.socialmission.org or learn more by watching this video.

Awards Program Recognizes 14 Emerging Leaders in Community Health Center Care

Each year, in collaboration with the National Association of Community Health Centers (NACHC), the Geiger Gibson Program in Community Health at Milken Institute SPH recognizes and celebrates young leaders whose work and dedication have helped further the health center's mission of health care and better health for medically underserved people.

The Emerging Leader Award was established in 2007 to showcase the accomplishments of a new generation of health center leaders. Candidates for the awards are nominated by the leaders of their health center, primary care association or network. Awardees are then selected by a committee drawn from the senior health center movement leadership.

From a very competitive field of nominees, 14 Emerging Leaders from across the country have been awarded the Emerging Leader distinction for their accomplishments that exemplify the health center's mission and the vision. Dr. H. Jack Geiger and Dr. Count Gibson were pioneers for community health and human rights and their mission remains at the center of the Geiger Gibson Program in Community Health.

"The professionals recognized as Emerging Leaders truly are the future of America's health center program. We are delighted to recognize their achievements as clinicians, managers, educators, policy advocates and public health experts, and anticipate their contributions in the years ahead," said Feygele Jacobs, Director of the Geiger Gibson Program at the GW Milken Institute SPH.

The community health center movement has grown tremendously over a half-century, from just two centers in the late 1960s to nearly 1,400 health centersoperating in more than 14,000 urban and rural locations across the country today. Community health centers are a vital source of health care in medically underserved communities and provide culturally competent, community-based care regardless of a patient's insurance status or ability to pay. The Emerging Leaders provide essential contributions to their organizations that improve the health of more than 30 million people who receive care at health centers annually.

"These Emerging Leaders represent the next generation of the Community Health Center Movement," said Rachel Gonzales-Hanson, Interim President and CEO of the National Association of Community Health Centers. "Their commitment, motivation, and professional achievements have helped strengthen and advance the mission of health centers. We are grateful for their leadership and the opportunity to honor their accomplishments at the 2023 NACHC Policy and Issues Forum."

HH2023 Emerging Leader Award Recipients

Allyson Pinkhover, MPH Director of Substance Use Services Brockton Neighborhood Health Center, Brockton, MA

Amanda Hirsch, MPH COVID Response Program Manager Neighborhood Health, Alexandria, VA

Brittany Silvestri, MBA Vice President of Population Health *Hudson Headwaters Health Network, Queensbury, NY*

Daniel S. Creitz, JD Senior Vice President, Chief Compliance Officer Community Health Center of Southeast Kansas, Pittsburg, KS

David Poms, MPH Partnerships Manager DC Primary Care Association, Washington, DC Emily Harris, MPH

Manager of Public Health Programs Chiricahua Community Health Centers, Douglas, AZ

Joe Capetillo, BS, RDA Director of Compliance and Innovation *Carevide, Greenville, TX*

Juan Gomez, MPH Outreach Coordinator Eastern Shore Rural Health System, Onancock, VA

Lynae Picou, MSc, BSN Women's Health Program Manager *PrimaryOne Health, Columbus, OH*

Marie Mongeon, MPH Senior Director of Policy Community Health Care Association of New York State, New York, NY Mario Ochoa-Prieto, MD

Internist and Director of Resident Education and Development Fair Haven Community Health Clinic, New Haven, CT

Nataly Diaz, MBA Director of Health Center Operations California Primary Care Association, Sacramento, CA

Samantha Hooper, MBA Marketing and Communications Director Mid-State Health Center, Plymouth, NH

Sonia Ayala, MSW, MA, LCSW Director of Care Management *Esperanza Health Centers, Chicago, IL*

Long-Time Reproductive Health Advocate Appointed to Head Jacobs Institute of Women's Health

In a post-Dobbs America, the future of women's reproductive health access has risen to the top among the most pressing women's health issues. Julia Strasser, DrPH, MPH, whose research focuses on contraception, abortion and access to care for underserved populations, brings years of expertise in this area to her new role as director of the Jacobs Institute of Women's Health at Milken Institute SPH.

Strasser, who was appointed in October 2022 and is also an assistant research professor of health policy and management at Milken Institute SPH, has worked in health care for over 15 years, including previous positions at the National Cancer Institute, the National Family Planning & Reproductive Health Association, and Planned Parenthood of Western Washington. She also serves as co-PI for the Reproductive Health Workforce research project in the GW Fitzhugh Mullan Institute for Health Workforce Equity.

"Dr. Strasser's research and expertise in reproductive health, rights and justice ensures that GW and the Jacobs institute will lead in both academic and policy issues related to women's health," said Susan F. Wood, PhD, who stepped down as director of the Jacobs Institute, which she had led since 2009.

The Jacobs Institute's mission is to identify and study aspects of health care and public health, including legal and policy issues, that affect women's health at



different life stages; to foster awareness of and facilitate dialogue around issues that affect women's health; and to promote interdisciplinary research, coordination, and information dissemination, including by publishing the peer-reviewed journal Women's Health Issues.

Longer-Acting Birth Control Methods May Not Be Available to Medicaid Patients

A Milken Institute SPH researcher, Mandar Bodas found that Medicaid beneficiaries face barriers in accessing medical care, and that includes contraceptive care. Although birth control is an essential health service, not all the primary care physicians who see Medicaid patients may offer them some of the most effective, longer-acting birth control methods. While nearly half (48%) of primary care physicians who treat Medicaid patients provided prescription contraception like the birth control pill, only 10% provided longer-acting methods like IUDs and implants, according to the study published in JAMA Health Forum.

"This study is the first of its kind and uses a national dataset of all Medicaid claims filed in the U.S.," said Mandar Bodas, lead author of the study. "In our analysis, we found that a physician's characteristics — including their clinical specialty, age, gender and the Medicaid expansion status of their state — were associated with both providing any contraceptive care and with the number of beneficiaries provided contraceptive care," Bodas said.

This study suggests that ensuring access to contraceptive services among Medicaid beneficiaries may require policy and program approaches tailored to different physician specialties. For example, Bodas notes that primary care doctors from certain specialties would need more training to provide the full scope of contraceptive care to their patients.

"Previous research tells us that Medicaid beneficiaries face a number of barriers to accessing primary care, and our study finds that one of those barriers is lack of access to the full range of contraceptive methods," said Julia Strasser, one of the primary investigators of the research project and Director of the Jacobs Institute



of Women's Health at Milken Institute SPH. "If a patient goes to a physician who is the only provider in the area that accepts Medicaid, and that physician only provides the birth control pill but not other methods, then it's hard to say that the patient has reasonable access to all forms of contraception," Strasser said.

By studying the primary care workforce that provides contraceptive care to this population, the research helps shed light on important factors that predict access to these critical health services, the authors said.

Institute for Brain Health and Dementia Focuses on Policy, Prevention, Clinical Needs and Social Determinants of Health

The Institute provides a forum for faculty members to discuss and collaborate with each other and external partners on clinical and public health research related to brain health and dementia. The GW Institute for Brain Health and Dementia brings together faculty from across the University with an interest in adult cognitive health. The Institute promotes and supports research that will meaningfully impact lives by promoting brain health, preventing cognitive loss,

addressing disparities in cognitive health and improving the quality of life of persons living with dementia and their caregivers. The Institute will do all this through research, events, training, and community outreach.

"Our members come from a variety of research backgrounds and disciplines, but all share a common goal. We are working toward a future where dementia is rare and where persons living with dementia and their care partners are provided with effective treatments and high-quality support services," said Melinda Power, professor of epidemiology and director of the Institute.

The Institute provides a forum for faculty members to discuss and collaborate with each other and external partners on clinical and public health research related to brain health and dementia. These faculty members are housed in various departments across the Schools of Public Health, Medicine and Health Sciences, and Nursing. Current projects span a range of issues related to brain health and dementia, including policy, prevention, clinical needs, and social determinants of health. A few examples of recent research grants include Statistical and Machine Learning Methods for Integrating Clinical and Multimodal Imaging Data to Select



Melinda Power, Director



Dr. Christina Prather, Clinical Director

Optimal Antidepressant Treatment (National Institutes of Health), Wearable Sensors and AI to Recognize and Evaluate IADLs (National Institute on Aging), Acceptability and Feasibility of Unsupervised HIV Self-Testing Among Networks of Men in Tanzania (National Institutes of Health), CaMR-AN Module Activity Matters Study (Children's Research Institute) and Medical Cannabis Competencies: A Delphi Study (Cannaceutica). The Institute has launched 25 projects since its inception.

Among their many efforts, the Expanding the Pipeline to Graduate Research in Alzheimer's Disease and Related Dementias (EPGRAD) program is a fully funded eight-week summer education and research training program for undergraduates from diverse and underrepresented communities. The program encourages students who are interested in medicine, science, technology, engineering and mathematics to pursue advanced studies and careers in the area of Alzheimer's disease and related dementias.

This past year, the GW Institute for Brain Health and Dementia offered community talks covering such topics as "Does My Health Insurance Cover That?," "Simplifying Medicare" and "Physical Activity and Brain Health."

New Director Named for the Geiger Gibson Program in Community Health

In October 2022, the Milken Institute SPH announced that Feygele Jacobs would take over as Director of the Geiger Gibson Program in Community Health, an academic center for research, scholarship, education and training focused on community health centers and underserved populations and communities. Established in 2004, the Geiger Gibson Program is named after Drs. H. Jack Geiger and Count Gibson, pioneers in health, human rights and health justice. Jacobs also serves as Professor of Health Policy and Management at Milken Institute SPH.

"We are thrilled that Feygele Jacobs is serving as Director of the Geiger Gibson Program," said Lynn R. Goldman, Dean of the GW Milken Institute School of Public Health. "Her vision, leadership and expertise will help guide and advance the program's signature research and academic initiatives for years to come."

Jacobs, formerly the President and CEO of the RCHN Community Health Foundation, collaborated closely in establishing and developing the Geiger Gibson Program. Activities of the Program include its extensive research portfolio through the Geiger Gibson/RCHN Community Health

Foundation Research Collaborative; special programs for emerging, mid-career, and senior health center and primary care association leaders; and most recently, CHroniCles, a special initiative that enables health centers to document and archive their history and offers users an online immersion into health centers and their communities.

The program has now grown into a unique presence among academic endeavors, combining excellence in education and scholarship with a commitment to advancing health justice through a special amicus project that brings the voice of public health and health policy expertise into judicial and regulatory policymaking.

Before becoming President of the RCHN Community Health Foundation, Jacobs had a long and celebrated career in managing health care programs and services for medically underserved populations, first as a hospital executive and



later as a senior executive overseeing one of the nation's first and most successful health center-led Medicaid managed care plans. She is known for her expertise in health center policy and practice, and as Foundation president, she played a major role in helping health centers conceive and carry out projects aimed at addressing social risk and advancing health care equity.

The Geiger Gibson Program conducts groundbreaking research on community health centers and plays a critical role in training the next generation of leaders in the field, said Anne Markus, Professor and Chair of the Department of Health Policy and Management. "Feygele Jacobs will be an exemplary role model for our students and instrumental in leading and defining the program's next chapter," Markus added. "We are extraordinarily lucky to have her at the helm of the Geiger Gibson Program."

Study Examines Changes to the Abortion and Contraceptive Workforce During the Pandemic

The pandemic put incredible strain on the health care workforce, including physicians who provide abortion and contraceptive care. New research led by GW shows how this workforce has changed throughout the pandemic. The study also raises implications for the future, especially now that the Supreme Court has overturned Roe v. Wade.

While the number of physicians providing abortion and contraceptive services

decreased in 2020, they rebounded in 2021, with the exception of physicians providing contraception care. There was a noted change in the workforce, with more advanced clinicians, such as assistant physicians and nurse practitioners, providing contraceptive care. Researchers also found that procedural abortion services did not distinctly decrease in early 2020, but rather steadily decreased over the course of these three years, while medication abortions steadily increased.

"The abortion and contraceptive workforce has been consistently losing practitioners for a while, which leaves people with less access to these important services," said Julia Strasser, lead researcher and director of the Jacobs Institute of Women's Health at the Milken Institute SPH. "Further research is needed to better understand how the Dobbs v. Jackson decision will further impact this workforce in the future and the implications it will have on people's reproductive health."

BRIGHT Institute Advances Timely Research and Practice in Digital Media

Digital media are omnipresent in modern life, but the science of how they influence behavior is still in its infancy. GW is addressing this lack of crucial research with the BRIGHT Institute, a multi-disciplinary, cross-University Institute advancing theory, research and practice in digital media. The Institute is led by Dr. Douglas Evan, Professor, Milken Institute SPH; and Dr. Lorien Abroms, Professor and Associate Dean, Milken Institute SPH.

Globally, approximately 45% of the world's population, or 3.5 billion people, use social media, and the average user spends approximately three hours a day on these applications. So, it is critical to understand both how technologies like social media influence health decision making and behavior. It is also important to design and evaluate effective behavior change interventions using social and other digital media platforms in digital health research, especially as it relates to methods and evaluating digital intervention effectiveness in public health.

Members are from across GW, including Dr. Carla Berg, Milken Institute SPH and GW Cancer Center; Dr. David Broniatowski, School of Engineering and Applied Science & Institute for Data, Democracy, and Politics; Dr. Richard Katz, Medical Faculty Associates (MFA);

Dr. Lori Posey, School of Nursing; and Dr. Silvio Waisbord, School of Media & Public Affairs. The BRIGHT Institute's goal is to expand membership over time in keeping with GW's vision to become a leader in digital health.



Lorien Abroms, Co-Director

The BRIGHT Institute supports research on digital health technologies and their application to public health, promoting healthy behaviors and preventing disease through social and behavioral change. Digital health technologies include all digital media and devices, such as the internet, mobile phones, social media, apps and SMS. The BRIGHT Institute supports faculty conducting research on the use of these technologies as platforms for interventions, to conduct surveillance (infodemiology) and to evaluate the effectiveness of new digital media as they emerge.



Doug Evans, Co-Director

Recent publications and projects funded by the National Cancer Institute, the Bill and Melinda Gates Foundation, and the Vaccine Confidence Alliance include social media interventions to prevent youth vaping and promote smoking cessation, infodemiology studies on the anti-vaccination movement and apps to promote healthy weight management. Most recently, the team is developing an app with a small business partner to provide breastfeeding support to low-income African American women in the DC area.


The Redstone Center Translates Research Into Concrete Policy Change

Ranked the number one park system in the United States three times by the Trust for Public Land, the District of Columbia has a nationally renowned park system. The District boasts a park system that is highly accessible, with 98% of residents living within a 10-minute walk of a park, as well as equitable, with parks evenly distributed across the city based on race and income demographics of neighborhoods. Finally, DC boasts a high percentage in total acreage of parkland, with 23.9% of the District's land categorized as greenspace. In reality, however, these figures fail to fully capture a park system that many residents would say does not live up to its full potential or reputation.

In 2023, a qualitative research report, "Neighborhook Park Service Strategies to create an equitable and activiated park system for the District of Columbia," published by the Sumner M. Redstone Global Center for Prevention and Wellness, revealed that fragmented stewardship by multiple federal and local agencies has left the District's park system inequitably funded and maintained, causing it to be underutilized as a public health asset for local communities.

"The National Mall provides a striking impression for tourists, but head into any neighborhood park in the District and you'll see crumbling infrastructure, trail overgrowth, trash, and no shortage of frustrated neighbors who are pleading for better management of their neighborhood parks," said Rachel Clark, the Redstone Center's policy director and lead author of the report.

Urban parks protect and promote public health through a series of connected interactions between people and the environment. For example, parks provide space for physical activity, thereby acting as a protective factor against cardiovascular and respiratory diseases. Activated parks house activities that promote social connection and belonging, either through more active events like sports leagues or more restful, communal events like outdoor movie nights. They can also provide more solitary opportunities to commune with nature, which can provide mental health benefits. Urban park systems also support sustainability and adaptation to climate change threats, such as through valuable ecosystem services including carbon storage, pollutant filtration, stormwater runoff mitigation and heat protection.

The District of Columbia faces a unique barrier when trying to improve its park system: it does not own most of its parkland. Due to DC's status as a federal district, the vast majority of the District's parkland is owned by the National Park Service (NPS), a federal agency that is rightfully focused on wilderness preservation at large uninhabited national parks across the country — not necessarily on urban parklands serving as neighborhood parks for the 700,000 people who live in the nation's capital.

Thus, there is a federal-local power imbalance at the root of this problem. The report proposes several policy recommendations to improve the park system. Most important, the federal government could transfer local-facing parkland from NPS to the District government. Transfers of title and jurisdiction of parkland are complex processes, but responses to the Redstone Center's report by local media outlets, the DC government, the Federal City Council, and Congresswoman Eleanor Holmes Norton have been positive.

In July of 2023, Congresswoman Norton introduced H.R.4497, a bill which proposes directly adopting a key recommendation from the report: to expand the mission of NPS to include active use of parks in urban areas.



"The idea for this bill came from a new report authored by George Washington University's Sumner M. Redstone Global Center for Prevention and Wellness that examined strategies to create a more equitable and activated park system in the District of Columbia," said Congresswoman Norton upon introducing the legislation. "This bill would expand the mission of NPS to include the promotion of active use of its parks located in urban areas. Active use prioritizes current enjoyment by people and improves quality of life, including playgrounds, pedestrian- and bicycle-friendly infrastructure, sports and recreation facilities, community events, programming and concessions."

Elected officials within the District government have also begun drafting local legislation in response to the Redstone Center's report. The Federal City Council, a nonprofit organization headed by former DC Mayor Anthony Williams, coordinated a panel on systems challenges identified by the Redstone Center and possible pathways to improving health outcomes for local residents. With additional developments and collaborations in progress, the Redstone Center is well-situated to transition the Neighborhood Park Service report from research into concrete policy change in the District of Columbia.

Bacteria From Meat Likely to Cause More Than Half a Million Urinary Tract Infections in the U.S. Every Year

A new study suggests that E. coli from meat products may be responsible for hundreds of thousands of urinary tract infections in the U.S. each year.

A team of scientists, led by Lance B. Price and Cindy Liu from the George Washington University Milken Institute School of Public Health, developed a new genomic approach for tracking the origins of E. coli infections. Using this method, the team estimated that between 480,000 and 640,000 urinary tract infections in the United States each year may be caused by foodborne E. coli strains.

"We're used to the idea that foodborne E. coli can cause outbreaks of diarrhea, but the concept of foodborne E. coli causing urinary tract infections seems strange that is, until you recognize that raw meat is often riddled with the E. coli strains that cause these infections" said Lance B. Price, professor of environmental and occupational health and the founder and co-director of the GW Antibiotic Resistance Action Center. "Our study provides compelling evidence that dangerous E. coli strains are making their way from food animals to people through the food supply and making people sick sometimes really sick."

E. coli is far and away the most common cause of urinary tract infections, causing upwards of 85% of cases each year. Women are at greater risk of developing UTIs, which can range from simple bladder infections to life-threatening bloodstream infections.

E. coli has the ability to live in and infect people and animals, including animals raised for meat in the U.S. When food animals are slaughtered, the bacteria that inhabit their guts – including E. coli – can contaminate the meat products and put people at risk for exposure.

By analyzing the genomes of E. coli from meat and those from people, the research



team identified segments of E. coli DNA unique to strains that colonize food animals versus humans, then developed a new predictive model to differentiate E. coli from the two sources.

Previous work by the same team, investigating a single sequence type of E. coli, had linked contaminated meat to urinary tract infections. In the latest study, the team used their new predictive model to look at all E. coli sequence types and showed that about 8% of E. coli urinary tract infections in the Flagstaff area could be attributed to meat.

Scaling from Flagstaff to the U.S. population overall, suggests that foodborne E. coli may cause hundreds of thousands of urinary tract infections across the U.S. every year, the researchers note.

"People often dismiss bladder infections as minor annoyances, but the bladder is a major gateway to patients' kidneys and bloodstream," said Cindy Liu, associate professor of environmental and occupational health at GW. "People over 55 and vulnerable populations such as cancer and transplant patients are at the highest risk for life-threatening blood infections, but E. coli is far and away the most common cause of urinary tract infections, causing upwards of 85% of cases each year.

young, healthy people are also at risk," said Liu, who is also the co-director of the GW Antibiotic Resistance Action Center.

The study suggests producers and the FDA could do a better job of monitoring potentially dangerous pathogens in food, particularly in raw meat sold in grocery stores across the country. At the same time, consumers can take steps on their own to limit their exposure to contaminated food. For example, home cooks can wash their hands carefully when preparing or handling raw meat and use separate surfaces to prepare raw and cooked foods, the authors say.

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Barbara Braffet and Ionut Bebu Secure Nearly \$30 Million to Study Youth at Risk for Type 2 Diabetes and \$13.2 Million for Type 1 Diabetes

Youth-onset type 2 diabetes is increasingly common and parallels the obesity epidemic, yet effective treatment and prevention strategies for high-risk children are extremely limited. Milken Institute SPH Associate Research Professors Barbara Braffet (Department of Epidemiology) and Ionut Bebu (Department of Biostatistics and Bioinformatics) are leading a consortium of researchers hoping their work will lead to better treatment and prevention techniques for this vulnerable population.

With a five-year, \$15,731,822 grant from NIH/NIDDK, Braffet and Bebu have been selected to serve as co-project leaders of the Biostatistics Research Center for the DISCOVERY of Predictors of Type 2 Diabetes in Youth consortium. Together with investigators from 15 clinical centers, the consortium will recruit, enroll and follow a large racially and ethnically diverse group of 3,600 early pubertal youth at risk for developing type 2 diabetes (T2D). The consortium will extensively phenotype the children as they transition through puberty and characterize the course of decline and dysfunction in pathophysiological indicators that lead to T2D. The knowledge gained from this natural history/observational study will critically inform the design and testing of future treatments and prevention approaches.

In addition, with a second \$13,198,726 NIH/NIDDK grant, Braffett and Bebu have been successfully renewed for an additional five years of study of the Diabetes Control and Complications Trial/Epidemiology of Diabetes

Interventions and Complications (DCCT/ EDIC) cohort. This cohort is the most extensively, longitudinally studied group of participants with type I diabetes mellitus (T1D) in history. "Remarkably, we have followed these participants for more than 60 percent of their lifespans and over 80 percent of their diabetes duration," says Braffet. In the current five-year cycle, EDIC will investigate the effects of very long TrD duration in an aging and increasingly overweight and obese population, which reflects T1D in the U.S. and Canada. Braffet adds: "The current EDIC cycle leverages 40 years of extensive prior study of the cohort to expand our understanding and improve the treatment of people with TID with advancing duration, age and adiposity."



BIOSTATISTICS & BIOINFORMATICS









SCOTT EVANS, Ph.D. BIOSTATISTICS & BIOINFORMATICS CHAIR

Q: What is your hope for the future of your field?

A: Our field is in an evolutionary transition from among the most feared and avoided disciplines to among the most intriguing, gaining considerable interest from new generations. We have the opportunity to capitalize on the excitement and momentum of data science and growing interest and awareness in public health. We need to be diligent to ensure that scientific rigors of traditional biostatistics and bioinformatics keeps pace with the excitement. We can then use this blossoming interest to improve public health research and its comprehension, better educate students and the public, and ultimately advance public health.

Q: Reflect on the past year. What is your department's greatest achievement or rewarding experience?

A: Perhaps the most rewarding was the proud parent moment seeing the first class of students in our new programs progressing through their respective programs and observing their professional growth, e.g., recently each of the four members of the inaugural class of the doctoral program in Health Data Science (biostatistics track) passed their qualifying exams and had a first author presentation at the 2023 annual meeting of the Society for Clinical Trials in just their second year of the program. The increasing enrollment into all of our new academic programs (e.g., we will have 22 doctoral students by the fall) and the approval of our new undergraduate program in Health Data Science were very satisfying.

There were many research highlights, including dual publications in the New England Journal of Medicine summarizing the results of the Glycemia **Reduction Approaches in Diabetes** (GRADE) comparative effectiveness clinical trial led by Dr. Lachin; the initiation of our first summer training program, Expanding the Pipeline to Graduate Research in Alzheimer's Disease and Related Dementias (EPGRAD), led by Dr. Ciarleglio; the successful transition of the renowned Diabetes Prevention Program Outcomes Study (DPPOS) from a diabetes focus to the Alzheimer's Disease and Alzheimer's Disease Related Dementias in Prediabetes and Type 2 Diabetes project (DPPOS AD/ADRD) led by Dr. Temprosa; and the initiation of the Understanding and Targeting the Pathophysiology of Youth-onset Type 2 Diabetes Consortium (UTP-T2D) led by Professor Bebu and Dr. Braffett.

Q: Who in your particular field do you most admire and why (living or dead)?

A: There are too many to name for so many reasons. A few: Professor LJ Wei for teaching me that our most important discovery is the right question; Professor Marvin Zelen for sharing success to benefit others; Professor Steve Lagakos for creating a culture to serve the young through education and opportunity; Professor Dave DeMets for his marrying clinical trials research and education; Professor Susan Ellenberg (a founding member of the Biostatistics Center) for her energy in leading and educating; Dr. Janet Wittes (a founding member of the Biostatistics Center) for her courage and perseverance in a male dominated



profession and her creativity in communicating difficult concepts; Dr. Dean Follmann for his thoughtful and tactful approach to difficult problems; Dr. Mitch Gail for integrating medical and statistical ideas to advance decision-making; Professor John Lachin for his mentorship of faculty and staff at the Biostatistics Center; Dr. Bob O'Neill for his courage in upholding scientific rigor despite industry pressures to lower them; Professor Stuart Pocock for creating problem solving and education in clinical trials; Professor Jim Neaton for showing us that thoughtfulness and hard work are more important than titles for leading research; Professor Tom Fleming for relentless pursuit of scientific integrity; and Professor Toshi Hamasaki for humility and selflessness despite enormous contribution.

Inaugural Program With Undergraduates Launched to Study Alzheimer's and Dementia

The Expanding the Pipeline to Graduate Research in Alzheimer's Disease and Related Dementias (EPGRAD) scholars spent half their training experience at GW from May 22 to June 16 and the other half at Boston University from June 19 to July 14. Ten scholars attended an inaugural Summer Program from May to July 2023, launched by GWSPH's Department of Biostatistics and Bioinformatics and the Institute for Brain Health & Dementia and Boston University's Framingham Heart Study-Brain Aging Program. The Expanding the Pipeline to Graduate Research in Alzheimer's Disease and Related Dementias (EPGRAD) scholars spent half their training experience at GW from May 22 to June 16 and the other half at Boston University from June 19 to July 14.

The EPGRAD Program is a fully funded intensive two-month summer training experience for undergraduates from diverse and underrepresented



communities that encourages and prepares them to pursue graduate studies. Ultimately the program's purpose is for these students to go on to careers in research on aging, Alzheimer's Disease, and related dementias — with the goal of increasing diversity and inclusivity of the research workforce in these areas. With a duration of five years, the program is entirely supported by the National Institute on Aging.

During the four weeks at GW, these young scholars engaged in rigorous activities of research, training, independent study, lectures, labs and seminars on a spectrum of Alzheimer's Disease and Related Dementias (ADRD) topics from both epidemiological and biostatistical perspectives. They collaborated with GWSPH faculty to seek academic and career mentorship and also met with GWSPH admissions to explore graduate school and careers. GWSPH faculty included Dr. Adam Ciarleglio (DBB), Dr. Melinda Power (DEPI), Dr. Meg Ulfers (DEPI), Loretta DiPietro (DENS), and Dr. Emma K. Stapp (DEPI).

Beyond the classroom, these students visited the Capitol to meet with DC Congresswoman Eleanor Holmes Norton and also toured the National Institutes of Health (NIH) campus in Bethesda. These field trips enabled them to understand the distinct responsibilities of both policymakers and researchers in influencing ADRD research. They also sought to unwind during leisurely excursions to the Washington Nationals baseball game and a National Symphony Orchestra concert to view a performance of "Romeo and Juliet" at the Kennedy Center.



Scan to Learn More

The NEJM Concurrently Publishes Two Studies Led by John Lachin

Last Fall, the New England Journal of Medicine (NEJM) published on the same day two studies led by Milken Institute SPH Research Professor John Lachin: "Glycemia Reduction in Type 2 Diabetes – Microvascular and Cardiovascular Outcomes" and "Glycemia Reduction in Type 2 Diabetes – Glycemic Outcomes (GRADE)." Lachin is no stranger to the NEJM; he's an author of 20 papers in the journal. His latest two appeared on September 22, 2022.

The two papers, one on the glycemic outcomes and another on micro- and macrovascular outcomes, provide strong guidance for preventing the complications of diabetes. The first paper compared four treatment groups with respect to the ability to maintain good glucose control and the incidence of adverse events. The second paper compared groups with respect to renal (microvascular) outcomes and cardiovascular (macrovascular) outcomes. Each was reviewed and critiqued by peers and each required at least six or so major revisions to address the editors' and reviewers' comments. "So, the joint publication required a huge amount of work," Lachin says.

The objective was to evaluate the comparative effectiveness of four classes of glucose-lowering agent with respect to the levels of glycemia, risk of vascular complications, adverse events and tolerability. The results of GRADE should facilitate more informed choices of glucose-lowering medications and the opportunity to individualize therapy for type 2 diabetes.

GRADE was a comparative effectiveness study. The four agents employed were all approved for use by the FDA based on prior studies conducted by the sponsor (manufacturer) showing that their drug could lower glycemia (HbAIc) relative to a placebo. However, Lachin says, "there was no incentive for the sponsors to also



conduct comparative effectiveness studies relative to other competitors. Thus, the National Institute of Diabetes, Digestive and Kidney Diseases (NIDDK) deserves special credit for funding GRADE to conduct a comparative assessment."

The publication of the two studies came on the heels of the 50th anniversary celebration last spring of the GW Biostatistics Center, where Lachin worked since 1973, serving as director from 1988 to 2000 and 2010 to 2012. As an expert in biostatistics, he has contributed to many of the center's landmark studies. Under his leadership, the center's groundbreaking research contributed to improved health outcomes and quality of life for millions of people worldwide. Lachin is Research Professor of Biostatistics and Bioinformatics, and of Statistics, formerly with tenure 1987 – 2014. He was the founding director of the GWU graduate program in Biostatistics and Epidemiology and mentored 15 doctoral students in statistics, biostatistics or epidemiology. He's authored five books and about 400 peer-reviewed scientific papers.

Health Data Science Program's First Ph.D. Cohort Celebrates Historic Milestone

The Milken Institute School of Public Health's Health Data Science (HDS) program celebrated a historic milestone this year with the first Applied Biostatistics cohort successfully passing their Ph.D. qualifying exams. These four exceptional students, Lizhao Ge, Yijie He, Shiyu Shu and Shanshan Zhang, represent a remarkable achievement for the program.

The Ph.D. qualifying exam, usually taken before a student's third year, evaluates their comprehensive knowledge of coursework, research topics, and mastery of both theories and methods. The in-depth exam typically includes a five-hour theoretical exam followed by a weeklong take-home practical exam.

Coming from diverse academic backgrounds, the students brought unique experiences to the HDS Ph.D. in Biostatistics program. Lizhao Ge, with a M.A.S. of Applied Statistics from Pennsylvania State University, was a Statistical Consultant and is now researching clinical trial designs and the application of the Desirability of Outcome Ranking (DOOR) in biomedical studies.

Yijie He, who holds an M.S. degree in Biostatistics from Duke University, enriched his journey with previous experiences in Bioengineering at the University of California San Diego. As a Ph.D. student, he hopes to explore clinical trials, high-dimensional data, and data science.

Shiyu Shu holds a M.S. of Statistical Practice from Carnegie Mellon University and has worked as a data analyst during the peak of the COVID-19 pandemic. This experience motivated him to pursue a career in public health, focusing on machine learning/data science, genomics data, and survival analysis. Shanshan Zhang, with a Bachelor of Medicine and an M.S. in Cell Biology from China Medical University, transitioned to public health upon her arrival in the United States. Her interest in designing and conducting clinical trials led her to the program, where she aspires to save lives "on a population level."

When asked about their experiences, students commended the comprehensive curriculum for its breadth. The Ph.D. program offers an enriching academic journey, providing complex coursework and unique research environment alongside faculty. "It involves courses from many different aspects," noted Ge, "courses from biostatistics, bioinformatics, machine learning and programming, which are beneficial for any project."

However, it's not just the curriculum that distinguishes the program. "The professors are very caring and helpful, and they often encourage us to attend important conferences and present our work," Zhang added.

The faculty's dedication to hands-on education has made a significant impact on the students. "We have a yearlong clinical trial course," Shu explained, "and the professors invite various guest lecturers from the industry, the FDA, NIH, and more to give talks." Proximity to renowned institutions like the NIH and FDA in Washington, DC, have provided further opportunities to enhance their practical knowledge, students remarked.

For prospective Ph.D. students, the advice is clear. Engage with professors, explore research opportunities, stay committed to rigorous coursework and as He emphasized, "prepare well in mathematics to grasp the theoretical foundation" of the challenging exam, "at least two months."



ENVIRONMENTAL & OCCUPATIONAL HEALTH











SUSAN ANENBERG ENVIRONMENTAL & OCCUPATIONAL HEALTH CHAIR

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Reducing antibiotic use in agriculture is critical for slowing the emergence of drugresistant bacteria, and this regulatory change prompted by our department's research is an important check on the claims companies are making to consumers.

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Q: Reflect on the past year. What has been your department's greatest achievement or rewarding experience?

A: It's incredibly rewarding when our department's research makes a real-world impact on public health. In June 2023, the FDA announced that it would re-examine how it substantiates meat and poultry companies' claims about how they raise animals, after Professors Lance Price, Cindy Liu, and colleagues published a study showing that many cattle claimed to be "Raised without Antibiotics" were actually given antibiotics. Reducing antibiotic use in agriculture is critical for slowing the emergence of drug-resistant bacteria, and this regulatory change prompted by our department's research is an important check on the claims companies are making to consumers.

Q: Who in your particular field do you most admire and why (living or dead)?

A: Tough question to answer! I have deep admiration for people who uncover links between environmental degradation and human health and have the courage to take a stand when policies and practices need to change to protect public health. A recent example is scientists such as Kim Prather, Lindsay Marr, and Joseph Allen, who recognized early on in the pandemic that COVID-19 was airborne and sounded the alarm that we need to do more than wash hands and sanitize surfaces to slow the spread of the disease. I'm incredibly lucky to have as colleagues at Milken Institute SPH Dean Lynn Goldman and former OSHA Secretary and GW professor David Michaels, who were also vocal about the need to recognize and address airborne spread of COVID-19.



Q: What is your hope for the future of your field?

A: Climate change is a defining public health challenge today and will continue to be throughout the 21st century. We are seeing the effects of climate change on public health play out in real time as tens of millions of people this summer have been exposed to hazardous heat waves and dense smoke from massive wildfires. I hope that governments across the world take action to deeply cut carbon emissions, and do so quickly, so that environmental health scientists can study public health improvements from these efforts as opposed to only the public health consequences from inaction.

Climate Expert Takes Helm of Environmental and Occupational Health Department

Longtime environmental health expert Susan Anenberg, who has led groundbreaking research on pollution and its effects on children's health as well as excess deaths, was appointed chair of the Environmental and Occupational Health Department in early 2023.

Anenberg, who has been at Milken Institute SPH since 2016, is also an associate professor of environmental and occupational health and of global health and currently serves as the director of the chartered GW Climate & Health Institute, which prioritizes cross-disciplinary research, training and action aimed at the health challenges brought on by climate change.

"Susan's deep knowledge of climate and health issues and vision for the future will help guide the department as well as the next generation of environmental and occupational health leaders," said Lynn Goldman, Dean of Milken Institute SPH.

Anenberg voiced excitement at the new opportunity and expressed pride in the resilience of the department and its faculty, given how it rose to the challenges posed by the COVID-19 pandemic and forged ahead with innovative, high-impact programs, research and student-centric teaching.

"Our faculty, staff, and students are addressing environmental and occupational issues that are leading public health risk factors in the U.S. and globally," Anenberg said. "I'm inspired by their passion and talent, and envision further growing the department's world-class research and engagement with communities and policy processes to advance health, well-being and environmental justice locally, nationally and globally." Anenberg also currently serves on the U.S. Environmental Protection Agency's Science Advisory Board and Clean Air Act Advisory Committee, the World Health Organization's Global Air Pollution and Health Technical Advisory Group, and the National Academy of Sciences' Committee to Advise the U.S. Global Change Research Program. She also serves as the President of the American Geophysical Union's GeoHealth section.

She earned both her Ph.D. in Environmental Science and Engineering, Environmental Policy and an M.S. in Environmental Science and Engineering from the University of North Carolina Gillings School of Global Public Health. Anenberg has a B.A. in Environmental Science and Biology from Northwestern University.

EOH Graduates Protecting Public Health

Graduates of the Environmental and Occupational Health (EOH) department fan out into a wide range of positions, from government to nonprofit, industry, and academia. Wherever our graduates end up, they are engaging in meaningful and impactful work to protect the public's health and preserve environmental quality.

Three recent EOH graduates, Lauren Ellis, Lauren Johnson and Dr. Veronica Southerland, have all landed positions at the Environmental Defense Fund (EDF). Lauren Ellis, a 2021 MPH graduate of Environmental Health Science & Policy, is an Environmental Health Research Analyst at EDF, where she aims to promote and advocate for health-protective federal chemical safety policies, including the implementation of the reformed Toxic Substances Control Act (TSCA). She also engages in broader science-based policy issues that relate to risk assessment methods, scientific integrity, and Environmental Justice. Lauren Johnson, a 2022 MPH graduate of Environmental Health Science & Policy, is a Senior Analyst for Equity and Environmental Justice at EDF, where she conducts qualitative research on net zero and Environmental and Climate Justice, using the findings to help inform EDF Business strategy. Lauren also leads the development and implementation of community training for EDF's Climate Vulnerability Index. Veronica Southerland, a 2022 graduate of the PhD program in Environmental Health, is a scientist at EDF's Global Clean Air Initiative, an effort driving targeted clean air action. Veronica's work at EDF focuses on the use of high-resolution exposure data to estimate the health impacts of air pollution.

In a full-circle moment from student to practitioner, Avanti Shirke, a 2020 MPH

graduate of the Environmental Health Science & Policy program, gave a scientific presentation earlier this spring where one of her former EOH Professors, Dr. George Gray, was an attending member. Avanti is currently a biologist at the U.S. Environmental Protection Agency (EPA), with experience working in regulatory toxicology and risk assessment. The presentation was given to a public meeting of subcommittees of the U.S. EPA Office of Research and Development's Board of Scientific Counselors, called the EPA Transcriptomic Assessment Product (ETAP) Panel. Dr. Gray, Professor of Environmental and Occupational Health, is co-chairing a committee that is also a subcommittee of the U.S. EPA Office of Research and Development's Board of Scientific Counselors, which is focused on the value of information analysis of the use of ETAP to develop chemical toxicity values.



EOH Research Team Featured at NASA Headquarters

In mid-June, NASA cut the ribbon on their new Earth Information Center (EIC) located in the lobby of their headquarters in Washington, DC. Featured on the hyperwall, NASA's famous screen displaying high resolution maps and graphs using satellite data, is research on air pollution inequality in Washington, DC, generated by researchers in the GWSPH Environmental and Occupational Health Department, including Dr. Susan Anenberg, Professor and Chair of Environmental and Occupational Health and Director of the GW Climate and Health Institute; Dr. Dan Goldberg, Assistant Research Professor; and Dr. Gaige Kerr, Senior Research Scientist.

In the last two decades, air pollution in the U.S. has declined by more than 50%, yet exposure to air pollution and its subsequent health effects are unevenly and inequitably distributed. Historical and contemporary race-based practices and policies have led to communities of color and those with lower income levels to have disproportionately high pollution burdens and disease rates throughout the U.S. Fine particulate matter (PM2.5), or microscopic particles in the air that are damaging to human health, has been consistently linked with mortality and morbidity outcomes such as cardiovascular and respiratory diseases.

GWSPH researchers leveraged NASA satellite data and granular data on disease rates in Washington, DC, to assess how PM2.5 exposure and attributable health impacts are dispersed across the city. They found that when compared to least impacted areas, such as Wards 2 and 3, PM2.5-attributable morbidity and mortality were four times higher in the most impacted areas such as Ward 7, areas that have higher proportions of people of color. The hyperwall display highlights air pollution inequities in the district and centers a 2-minute video narrated by Dr. Anenberg that describes the health impacts of air pollution and the benefits of leveraging satellite data, and underscores the necessity of this continued work to minimize harm to vulnerable populations.

In addition to the hyperwall display, NASA's mesmerizing new lobby installation has an immersive experience and a chandelier that displays the direction and magnitudes of Earth communications with individual satellites through moving lights. The EIC is open to the public but can also be accessed through an online viewing option.



Scan to watch the featured NASA EIC video generated by EOH researchers.

New \$3.6 Million NIH Grant Led by EOH Associate Professor Cindy Liu Aims to Better Understand the Role of the Nasal Microbiome in Respiratory Infections

The nasal microbiome is unique to the nasal cavity, formed by a collection of billions of microorganisms that are important for personal and public health. The composition of the nasal microbiome is expected to have a significant effect on local immune response and thus on host susceptibility to respiratory viruses. While earlier studies have looked at the respiratory microbiome in infants and children and immune response in adults during infection, very little research exists about the nasal microbiome during periods of homeostasis in adults, limiting the knowledge of immune features that confer protective benefits against respiratory illnesses.

A team of researchers, led by EOH Associate Professor and chief medical officer at the GW Antibiotic Resistance Action Center Cindy Liu, aims to fill in this knowledge gap with the help of a \$3.6 million NIH grant they recently received to study the influence of the nasal microbiome on host susceptibility and response to respiratory viruses. The goal of the five-year project is to understand how the natural dynamics of the nasal microbiome and immune environment in adults affect host susceptibility to respiratory infections.

"I am tremendously excited by this project. It is critical for us to better understand how our nasal immune environment interacts with our nasal microbiome. We expect this new knowledge to allow us to identify new protective and risk factors for viral infections and even respiratory diseases that are associated with pathologic inflammation," said Liu. The project will use cross-sectional sampling and an innovative in-vitro nasal microbiome-respiratory epithelial co-culture model to directly ascertain dynamics of the homeostatic nasal microbiome, determine how the microbiome and immune



environments affect susceptibility, and examine how these interactions influence host susceptibility to infection.

The hope is that this project will build a new knowledge base on bacterial factors that could promote protections in adults against respiratory infections, to ultimately find new ways to prevent the spread of infectious diseases, including those caused by influenza virus, coronaviruses (like SARS-CoV-2), and others. The multidisciplinary project team includes Dr. Dan Park (Epidemiology), Maliha Aziz (Bioinformatics), and Dr. David Diemert (Infectious Diseases) from GW as well as Drs. Jessica Prodger (Immunology) and Ryan Troyer (Virology) from Western University, Dr. Rupert Kaul (Infectious Diseases) from University of Toronto and Dr. Aaron Tobian (Pathology) from Johns Hopkins University.

EOH Professorial Lecturers Tapped for White House Assignments

Within the past year, three EOH department Professorial Lecturers, Dr. Natasha DeJarnett, Dr. Suril Mehta, and Dr. Jalonne White-Newsome, have received assignments to serve on the White House Council on Environmental Quality (CEQ). The CEQ, which is housed within the Executive Office of the President, is tasked with coordinating federal government efforts to improve, protect and preserve America's public health and the environment.

Dr. Natasha DeJarnett is completing a one-year assignment as Deputy Director for Environmental Justice Data and Management for the CEQ. In her role, DeJarnett will continue to incorporate stakeholder and expert input into the Climate and Economic Justice Screening Tool, a mapping tool that identifies communities that are underserved and overburdened by pollution. Additionally, she will be helping to develop an Environmental Justice Scorecard that will be used to track government agencies' progress on Environmental Justice. When not on loan at the CEQ, Dr. DeJarnett is an Assistant Professor of Medicine at

the University of Louisville, where she researches the associations between environmental exposures and health outcomes and identifies health disparities associated with health outcomes. As a Professorial Lecturer in EOH, she is a session lead for the Environmental and Biological Foundations of Public Health course.

Dr. Suril Mehta is currently on temporary assignment at the CEQ, serving as Senior Advisor for Chemical Safety. In his role, Mehta helps to advise Chair Mallory on critical chemical safety issues and policies, joining his public health expertise and experience with sciencebased policy-making. He is on loan from the Integrative Health Assessments Branch of the Division of Translational Toxicology at the National Institute of Environmental Health Sciences (NIEHS), where he is an environmental epidemiologist. As a Professorial Lecturer in EOH, where he also completed his Doctorate in Public Health (DrPH), Mehta serves as the course director for the Introduction to Environmental and Occupational Epidemiology. "I am very passionate about the work that I do because I know that it

matters to the health of this nation and to the world," he says. "I understand the responsibility of what I do, and I don't take it lightly. I'm proud of my work and the principles I apply to show the value of good science at the forefront of protecting public health."

Dr. Jalonne White-Newsome was appointed as the CEQ's Senior Director for Environmental Justice on May 5, 2022. In her role, White-Newsome will advise Chair Mallory on Environmental Justice policy and help lead, advance and coordinate the Biden-Harris administration's historic effort to leverage the federal government to address environmental justice. Prior to her appointment at CEQ, Dr. White-Newsome was the CEO and Founder of Empowering a Green Environment and Economy (EGE2), a strategic consulting firm focused on people-centered solutions to improve public health, pursue environmental justice, advance racial equity and combat climate change. As a Professorial Lecturer in EOH, she is a session lead for the Environmental and Biological Foundations of Public Health course.

EXERCISE & NUTRITION SCIENCES











JENNIFER SACHECK-WARD, PhD EXERCISE AND NUTRITION SCIENCE CHAIR

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Our PhD program in Exercise Physiology and Applied Nutrition welcomed its third cohort of students in the fall of 2022. We have students with mentors across the department on a wide range of projects — spanning labbased to community focused research.

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Q: Reflect on the past year. What has been your department's greatest achievement or rewarding experience?

A: Our PhD program in Exercise Physiology and Applied Nutrition welcomed its third cohort of students in the fall of 2022. We have students with mentors across the department on a wide range of projects - spanning lab-based to community focused research. I am extremely proud that although these students are at different stages of their doctoral training, all of them have already presented their research at annual professional meetings, published or submitted manuscripts as first author, and are applying for federal and foundation funding for their research. They have been a wonderful addition to EXNS as they help propel our research forward!

Q: Who in your particular field do you most admire and why (living or dead)?

A: There is not a single individual, but there are several pioneering women scientists that I admire, not just for their scientific discoveries — in the lab, clinic, and the community — but also in tandem with balancing a family and exuding a work hard and play hard mentality, where they simply make it all happen. They are a force to be reckoned with and light the path for generations of women scientists and scholars who choose to raise families while simultaneously excelling within their professions.



Q: What is your hope for the future of your field?

A: My hope is that the science of nutrition and physical activity is more widely valued and respected within the field of public health. We eat and move in our daily lives. The scientific underpinnings of understanding how these two things critically impact our health and well-being - from pre-conception to death - still oftentimes take a back seat to drugs and medical therapies versus prevention or lifestyle changes for treatment. As areas such as precision nutrition, metabolomics, and the microbiome evolve, perhaps fellow scientists and the lay public will better appreciate and understand that it is far too simplistic to stereotype nutrition and physical activity as "eat your fruits and vegetables" and "get your daily exercise." The science behind healthy nutrition and exercise is as complex and profound as other public health areas.



Infant Formula Shortage Created Adverse Emotional Impact on Moms, According to Study

With the majority of U.S. infants partially or entirely reliant on infant formula for nutrition, the unprecedented formula shortage in 2022 created an alarming problem for parents across the country.

In fact, a Milken Institute SPH study by Allison Sylvetsky, associate professor in the Department of Exercise and Nutrition Sciences, found that the shortage had adverse impacts on mothers' mental and emotional health as well as significant financial costs and led to changes in infant feeding practices. These added mental, emotional and even physical stressors are especially concerning for mothers who are already at risk for postpartum anxiety and depression.

"This study is an important first step in understanding the multifaceted impacts of the ongoing infant formula shortage," said Dr. Sylvetsky. "Research in this space is critically important so we can better understand the many challenges mothers with infants are facing and provide the best support possible." The study was the first to be published in preprint on this topic, and Sylvetsky and her team are now focusing on learning the perspectives of a more racially and economically diverse sample of mothers. Data collection for this follow-up study thus far suggests that the impacts and costs of the shortage may be particularly detrimental in low-income households.

Public Health Expert Named to 2025 USDA Dietary Guidelines Advisory Committee



More than half of all adults in the U.S. have one or more preventable chronic disease related to a poor diet and do not get enough physical activity, according to the Dietary Guidelines Advisory Committee. Sameera Talegawkar, an associate professor of exercise and nutrition sciences and epidemiology at Milken Institute SPH, is hoping to change that as one of several experts around the country who was appointed to the 2025 guidelines committee.

As part of its work, the committee reviews scientific evidence with a focus on diet and health outcomes across

the lifespan, including the relationship between diet and obesity risk, to make recommendations to the U.S. Departments of Agriculture and Health and Human Services with the goal of releasing an updated version of the Dietary Guidelines for Americans. The 2025 committee will also apply a health equity lens to their review.

"I am thrilled to use my expertise related to dietary patterns, food pattern modeling and health related outcomes to inform the dietary guidelines," said Talegawkar, who earned her Ph.D. in nutritional epidemiology and focuses her research on how dietary patterns affect age-related changes in physical function and how they impact health disparities experienced by underserved and minority populations.

Loretta Di Pietro and Ella Temprosa Win Grant to Advance the Study of the Biologic Mechanism Link Between Obesity and Cancer

More than 13 different cancers are associated with obesity, although the precise mechanisms underpinning the obesity and cancer link are unclear. Drs. Loretta DiPietro and Ella Temporosa created the Metabolic Dysregulation and Cancer Risk Consortium (MDCRC) at GW to bring together research groups from different fields to study just this.

In 2022, the NIH National Cancer Institute awarded a grant to Di Pietro and Temprosa to launch the consortium.

Recognizing that many of today's critical public health problems can be addressed, at least partly, through improved nutrition and physical activity, DiPietro, a Professor in the Department of Exercise and Nutrition Sciences, has built bridges between population-based public health and the clinical and physiological domains of exercise science. Temprosa is an Associate Research Professor in the Department of Biostatistics and Bioinformatics, where her research projects have focused on Phase 3 NIH-sponsored, multi-center clinical trials for more than 25 years at the Biostatistics Center.

Under their leadership, the MDCRC is examining how obesity alters normal metabolic pathways, leading to cancer risk. The grantees are particularly interested in funding initiatives that can help identify mechanisms that will enhance cancer risk prediction and screening for highrisk individuals in clinical settings and find potential targets for preventive and therapeutic interventions. The MDCRC Coordinating Center is facilitating the creation of a rich research data set while also providing both scientific leadership and project management for the collaborative cross-Consortium activities.

Kyle Levers Named Professor of the Year by Student Athletes

Dr. Levers, an Assistant Professor in the Milken Institute SPH Department of Exercise and Nutrition Sciences, was chosen as the 2022 Professor of the Year by a resounding vote from the university's student-athletes. In a ceremony held on February 22, the GW community celebrated the academic excellence of its student athletes by awarding Dr. Kyle Levers Professor of the Year. Dr. Levers, an Assistant Professor in the Milken Institute SPH Department of Exercise and Nutrition Sciences, was chosen as the 2022 Professor of the Year by a resounding vote from the university's student athletes. This honor recognizes Dr. Levers' dedication to teaching and contributions to the collegiate journey of student athletes at GW.

His journey to becoming Professor of the Year is preceded by a rich background in exercise physiology, athletic performance development, coaching and sports nutrition. As a former collegiate athlete and an active individual, he values the applied aspects of human performance research and uses this background to advise students on academics, research and career goals.





Dr. Levers serves as the Director of the Metabolism and Exercise Testing **Research Services and Academic** Laboratories at Milken Institute SPH, enriching the student experience by enhancing facilities and curricula. Levers is a well-respected faculty member, and this award is a testament to his commitment to his students. His commitment to teaching and mentorship has left a significant impact on the lives of many student athletes, both in and out of the classroom. His passion for his subject matter and enthusiasm have inspired many GW athletes to pursue their academic and athletic goals with renewed vigor. We are proud to have Dr. Levers as a member of our community and grateful for his contributions to the success of our student athletes.

Levers dedication to empowering the next generation of 'citizen leaders' embodies the spirit of Milken Institute SPH. Congratulations to Dr. Kyle Levers for his well-deserved recognition as the 2022 Professor of the Year.

Meet Rob M. van Dam, Professor of Exercise and Nutrition Sciences and Epidemiology



do diet and physical activity play in preventing obesity, type 2 diabetes, and cardiovascular diseases in different

What role

ethnic groups? This is the question Dr. Rob van Dam is investigating as a Professor of Exercise and Nutrition Sciences and Epidemiology at the Milken Institute SPH and an Adjunct Professor of Nutrition at the Harvard T.H. Chan School of Public Health. His research is mainly based on large-scale cohort studies integrating reported diet, dietary biomarkers, and biomarkers of intermediate pathways.

"The Milken Institute SPH is dynamic and growing," says van Dam, who holds an MSc in Nutrition Science from Wageningen University and a Ph.D. from the Faculty of Medicine, VU University Amsterdam. "For example, I was happy to see the expansion of the Ph.D. programs and the recruitment of talented new faculty members. And yet there's still a collegial and caring atmosphere here."

In the last decade, van Dam's research has mainly focused on the role of lifestyle factors in preventing type 2 diabetes and cardiovascular diseases in Asia. Since joining GW, he has started collaborating with the MASALA study and the Jackson Heart Study, two U.S. cohort studies. "These collaborations provide exciting opportunities to expand my research to Asian and African Americans," he says. "Another highlight was working with a group of enthusiastic undergraduate students on developing an online survey for Asian Americans about hurdles to adopting a healthier lifestyle and preferences for diabetes prevention programs."

Because of van Dam's expertise, he has been invited to speak at the International Diabetes Federation, the conference of the Association for Science and Information about Coffee, and the International Conference on Obesity and the Metabolic Syndrome.

A proud moment of his first year at the Milken Institute SPH for van Dam and his research associate Vlad Gradinariu was publishing a paper in the journal Diabetes, Obesity and Metabolism on the effect of diet and exercise interventions on diabetes risk markers in the PREMIER trial. The PREMIER trial was an 18-month parallel randomized trial of the impact of behavioral lifestyle interventions implementing lifestyle recommendations (dietary changes, physical activity, moderate weight loss) in adults with prehypertension or stage 1 hypertension.

"Interestingly, the benefits of adopting a healthier lifestyle were found in both people with prediabetes and those with normal glucose levels," he says. "This finding supports that lifestyle changes earlier in adulthood can prevent prediabetes, which may be preferable to waiting until people develop prediabetes to recommend lifestyle changes."

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EPIDEMIOLOGY











MANYA MAGNUS, PhD, MPH EPIDEMIOLOGY CHAIR



Whether a person volunteers for a short online survey or a first-in-human phase 1 clinical trial of a new medication, they are helping to shape the future of knowledge. I admire each and every person who volunteers to participate in research since without them, we cannot advance science, medicine, or public health.



Q: Reflect on the past year. What has been your department's greatest achievement or rewarding experience?

A: The Department of Epidemiology's continued dedication to research on today's most pressing issues, including infectious diseases, non-communicable diseases, aging, cognitive, and psychiatric conditions, substance use disorders, and more remain our shared accomplishments this year. Our faculty's ability to leverage the research and infrastructure developed as a result of the challenges experienced during the COVID-19 pandemic is remarkable. We have continued to thrive beyond the pandemic, generating new knowledge each and every day within our faculty's vibrant research portfolios. We do this at the same time as teaching the next generation of public health practitioners with among the largest MPH, MS, and PhD cohorts in the school.

Q: Who in your particular field do you most admire and why (living or dead)?

A: I would have to point to a group of people for this question rather than just one person: research volunteers. Whether a person volunteers for a short online survey or a first-in-human phase I clinical trial of a new medication, they are helping to shape the future of knowledge. I admire each and every person who volunteers to participate in research since without them, we cannot advance science, medicine, or public health.



Q: What is your hope for the future of your field?

A: Epidemiologic methods are key to unraveling the biggest public health questions of our time - now and into the future. Our methods answer questions about causes of morbidity and mortality, which interventions work, and how our public health systems achieve (or don't achieve) their objectives. They can be used to analyze everything from small samples to clinical trials to "big data" and inform how we can improve public health ecosystems around the world. My hope for the future of our field is that we continue to train the next generation of scholars so that our toolkit can be leveraged to inform the future of health, drive policy health care implementation, reduce disparities, and foster global public health.

GWSPH Partner Whitman-Walker Receives \$2M NIH Award to Develop State-of-the-Art HIV Research Center in DC's Ward 8

Whitman-Walker, a leader in LGBTQ health, research, and policy and growing collaborator with George Washington University, received a nearly \$2 million dollar construction award from the National Institutes of Health (NIH) Office of AIDS Research. The award aims to facilitate the establishment of a new state-of-the-art HIV-focused biomedical research space.

As part of a growing partnership between George Washington University and Whitman-Walker, the new and expanded research facilities will be jointly used by HIV investigators at both institutions with a long-term goal to expand its capacity to include other researchers from the DC Center for AIDS Research. Whitman-Walker and GW have collaborated on successful joint ventures in the past, including the District of Columbia Clinical Trials Unit joint partnership and Whitman-Walker's involvement in the DC Cohort Longitudinal HIV Study that aim to end the HIV epidemic in the nation's capital

The research facilities will be a part of the new Max Robinson Center, Whitman-Walker's future flagship building, which will be located on the St. Elizabeths East Campus redevelopment project in DC's Ward 8. The construction grant will enable Whitman-Walker and GW researchers to bring cutting-edge advancements in HIV treatment and prevention science directly to DC's Wards 7 and 8, which face the District's highest HIV burden.

The grant represents a historic investment by NIH to strengthen infrastructure among institutions with a demonstrated mission to serve communities underrepresented in research. The location of the research facility will be on the 2nd floor of Whitman-Walker's new 7-story health care home currently under construction The construction grant will enable Whitman-Walker and GW researchers to bring cutting-edge advancements in HIV treatment and prevention science directly to DC's Wards 7 and 8, which face the District's highest HIV burden.

at 1200 Sycamore St. SE in the Congress Heights neighborhood.

The award will fund the addition of nearly 10,000 square feet of biomedical HIV research space to the approximately 8,000 square feet of research space already under development by Whitman-Walker. This research facility will support clinical and translational research with the addition of a state-of-the-art lab and dedicated research pharmacy. Overall, the added facility will more than double the available research space in the new building and serve as the primary collaborative hub for community-centered HIV research in Southeast DC.

"This is a once-in-a-lifetime opportunity to dramatically expand our capacity to conduct cutting-edge HIV research in a space that centers community and

fosters cross-institutional collaboration." Jonathon Rendina, Senior Director of Research at Whitman-Walker Institute, Associate Research Professor of Epidemiology at Milken Institute SPH and Principal Investigator on the new award, said. "The research space in the new Max Robinson Center will not only link researchers across institutions, but also across research methodologies, which we hope will lead to the scientific breakthroughs necessary to end the HIV epidemic and eradicate the intersectional inequalities that have become a hallmark of HIV and more recently emerging pandemics, such as COVID-19. What is discovered in this new space will have implications broader than just HIV, and the next generation of scientists trained there will influence public health for decades to come."

Milken Institute SPH Faculty and Staff in Leadership Roles for the National Centers for AIDS Research Diversity, Equity and Inclusion Pathway Initiative (CDEIPI) Coordinating Center

HIV disproportionately impacts U.S. racial and ethnic minorities, and it is critical to increase the diversity of investigators in the field to help end the HIV epidemic in the United States. The NIH-supported Centers for AIDS Research (CFAR) Diversity, Equity, and Inclusion Pathway Initiative (CDEIPI) is working to increase diversity among trainees in HIV science and medicine. Milken Institute faculty and staff are working with investigators from Howard University and the GW Columbian College of Arts and Sciences to coordinate this national initiative.

"The only way to end this epidemic is to ensure people who come from communities most affected by HIV are included in the effort," says Ms. Brandi Robinson, Administrative Director of the DC CFAR.

To date, 18 CFARs from across the U.S. have established CDEIPI programs which include collaboration with Historically Black Colleges and Universities and other Minority Serving Institutions to develop training and mentoring programs for students at the high school, undergraduate, post-baccalaureate, graduate (master's, doctoral and medical) and post-doctoral levels. These programs are helping to create pathways for them to succeed in careers in science and medicine. "This has been life changing," says one scholar, "being able to connect with other scholars who look like me and have similar interests as me."

Milken Institute SPH Professor Alan Greenberg is the Director of the DC CFAR and along with Ms. Robinson leads the Administrative Core of the CDEIPI Coordinating Center. Milken Institute SPH Professor Manya Magnus serves as the DC CFAR Co-Director and along with Ms. Lorena Segarra leads the Evaluation Core of the CDEIPI Coordinating Center. Thus far the CDEIPI program has made notable progress: 1,085 diverse students have applied to the program; 257 applicants were selected as CFAR Scholars; and 149 teachers, mentors, and staff have been engaged in delivering CDEIPI programs that feature didactic lectures, mentored research experiences and residential summer programs.

"We are thrilled with the program," says Robinson. "In a short period of time, it's been very successful in letting this community of diverse scholars know there is a place for them in the world of medicine and research — and we need them."

A supplemental issue of the Journal of Acquired Immune Deficiency Syndromes (JAIDS) with 19 articles describing the first two years of the CDEIPI program was published in October 2023. October 1, 2023 - Volume 94 - Issue 2S : JAIDS Journal of Acquired Immune Deficiency Syndromes (lww.com).

Research to Improve HIV Care and Outcomes in Washington, DC

The DC Cohort is a population-based study to monitor and improve care and clinical outcomes among people with HIV (PWH) in Washington, DC. Led by Dr. Amanda Castel, Professor of Epidemiology, with Dr. Anne Monroe serving as Project Director and Dr. Alan Greenberg serving as Senior Co-Investigator, the DC Cohort has been funded by the NIH since 2009 and most recently through a competitive NIH R24 funding mechanism. Over 12,000 patient volunteers since 2011 have agreed to have their clinical data entered into a large database. The study collects information from PWH receiving outpatient care at 14 clinics across DC and includes information on risk factors, diagnoses, lab results, treatments and procedures.

This is a city-wide initiative with academic, community and government clinics. One highlight of the study is close collaboration with the DC Department of Health to improve the completeness of information through periodic data linkages. Additionally, there is an active Community Advisory Board consisting of patient representatives from the participating clinics to provide the patient perspective on study procedures and research topics.

Sites that participate have access to an actionable dashboard where they receive data on enrolled patients quarterly. The site is able to compare its quality of care and download individual patient-level data to monitor key HIV outcomes. This gives them the opportunity to evaluate and improve care over time and also to rapidly identify patients for participation in additional research.

Use and analysis of DC Cohort data helps move the field of HIV care forward. Projects using DC Cohort data have evaluated patterns of HIV care, various clinical outcomes and co-morbidities of HIV, molecular epidemiology, COVID, and Mpox. The DC Cohort has also served as a platform for various substudies, including an Ro1 funded project on an mHealth app to improve retention in care and viral suppression.

The DC Cohort is an important part of the local Washington, DC, HIV response. The study contributes to the Ending the HIV Epidemic both locally, and also nationally through dissemination of lessons learned in DC.

GLOBAL HEALTH









JAMES M. TIELSCH, PhD, MHSC GLOBAL HEALTH CHAIR

Q: Reflect on the past year. What has been your department's greatest achievement or rewarding experience?

A: Every 5-7 years each department at GW undergoes an Academic Program Review (APR). This is an in-depth look at each academic program at GW that starts with a departmental self-study. While those of us who lead departments typically dread this process because of the work involved, it actually offers the opportunity to review where the department has been, the progress in development and improving academic programs, the development of our faculty, and the exciting results of our research over an extended period. It sets the stage for a strategic planning process and forces us to think carefully about where we want our department to be in another 5 years. I've been department chair for over 10 years now and anticipate stepping down from this role in the next year or two. So for me personally, the self-study allowed me to see how far we've come in the past 10 years and why the conclusion of the APR is a great time for a new chair to step in and lead with new perspectives on what progress will look like in the future.

Q: Who in your particular field do you most admire and why (living or dead)?

A: I was very fortunate to be hired straight out of my PhD by Alfred Sommer, a faculty member in the Department of Ophthalmology at Johns Hopkins who was building a public health group within this classical clinical department. The next dozen years were incredibly exciting and challenging, much to the credit of his leadership. He was very demanding and constantly pushing boundaries in both the public health and clinical worlds. He championed the integration of research findings to policy and believed strongly that scientists had the responsibility not only for objectivity in their research, but also to advocate for programs and policies based on those findings. He transitioned to the deanship of public health at Hopkins and a number of us followed him a few years later. He again changed the nature and expectations of that school and turned it into the dynamic and widely considered best school of public health in the country. He has remained a good friend and mentor to me for my entire career.

Q: What is your hope for the future of your field?

A: Global health is at a crossroads where the old models of the western industrialized countries dictating approaches to improving the public's health in low- and middle-income countries around the world need to be retired. Decolonization is the buzzword for this process, but it fundamentally calls for a renegotiation with our colleagues in the global south about who sets the agenda, leads the necessary research and development, constructs the policy agenda, and takes the credit for the improvements occurring in those populations around the world. It's a new day and respectful partnerships between institutions and colleagues is the road to the future.





Global health is at a crossroads where the old models of the western industrialized countries dictating approaches to improving the public's health in low- and middle-income countries around the world need to be retired.



COVID-19 Infection Poses Increased Risk for Pregnant Women

Pregnant women who become infected with the virus that causes COVID-19 face significant health risks, according to a Milken Institute SPH study.

The researchers found that compared to uninfected pregnant women, pregnant women with COVID-19 infection had:

- seven times higher risk of dying during pregnancy or childbirth;
- more than three times greater risk of being admitted to the intensive care unit (people with COVID-19 who need ICU care are also more likely to die);
- about 15 times higher risk of needing ventilator treatment (COVID-19 can affect the ability to breathe and in severe cases patients need mechanical ventilation in order to survive);

- about 23 times higher risk of developing pneumonia, a potentially life threatening complication of COVID-19; and
- more than 5 times higher risk of thromboembolic disease, or blood clots, that can cause pain, swelling, or other life-threatening complications.

"This study provides the most comprehensive evidence to date suggesting that COVID-19 is a threat during pregnancy," said Emily R. Smith, an assistant professor of global health at Milken Institute SPH and lead author of the study, who along with her research team, pooled individual patient data from 12 studies conducted in 12 countries, including the United States, involving more than 13,000 pregnant women.

Despite the very serious health risks, more than 80 countries still do not recommend



Emily R. Smith

that all pregnant and lactating women get the COVID vaccine, Smith said and added that this meta analysis provides public health officials and the public with clear, consistent and compelling findings. "All countries, including the United States, should make access to COVID vaccines an urgent priority in order to save lives and prevent health problems," Smith said.

mRNA Vaccines Offer One-Two Punch to Combat Malaria

Milken Institute SPH researchers are potentially one step closer to eradicating malaria, the deadly disease that causes 241 million cases and an estimated 627,000 deaths every year around the world. Nearly half of the world's population is at risk of contracting malaria. The disease also reappeared in Texas and Florida in 2023, which is the first spread of the disease in the U.S. since 2003.

Thanks to recent technological advances in vaccine development, specifically the



mRNA vaccines for SARS-CoV2, scientists are hopeful that this so-far elusive treatment could now become more effective.

"Malaria elimination will not happen overnight, but such vaccines could potentially banish malaria from many parts of the world," said Nirbhay Kumar, a professor of global health at Milken Institute SPH. "The mRNA vaccine technology can really be a game changer."

Kumar and his research team have developed two mRNA vaccine candidates that are highly effective in reducing both malaria infection and transmission. The team also found that the two experimental vaccines induced a powerful immune response regardless of whether they were given individually or in combination. "These vaccines were highly effective at preventing infection and they wiped out transmission potential almost entirely," Kumar said. As part of the study, which was supported by the National Institutes of Health, the researchers also tested their mRNA vaccines against other nucleic-acid-based vaccine platforms and found that the mRNA vaccines were far superior in inducing an immune response compared to the DNA-based vaccines. The team hopes to conduct additional research with the vaccines, including studies in nonhuman primate models, with the goal of producing vaccines that can be used safely in humans.

"To have a vaccine cocktail that can effectively disrupt multiple parts of the malaria parasite's life cycle is one of the holy grails of malaria vaccine development," Kumar said. "This study brings us one step closer to producing vaccines that can be used safely in humans to prevent illness and save lives, with the ultimate goal of defeating this disease."

Center for Community Resilience Expands Its Work to Africa

After several years advising local public health leaders in the U.S., the Center for Community Resilience (CCR) is taking its work global as part of a new partnership with the Aspen Global Leadership Network and the University of Global Health Equity based in Kigali, Rwanda.

The new partnership will translate CCR's work on building community resilience and equity to an African context through the University of Global Health Equity's Community Resilience Leaders program.

"Our curriculum will give them a framework and help them to begin to think about how they would measure their efforts not just in the reduction of trauma, adversity and inequity, but also the measurement of how we're building resources and assets that help to build health, well-being, and more social and economic equity," said CCR Director Wendy Ellis.

The CCR model, which is a solutions-based approach to preventing and mitigating adverse childhood experiences within the context of adverse community environments, provides public health leaders with technical and analytical support to not only assess and measure current sources of inequity, but also to consider and identify policies that could be used as an intervention to help close those equity gaps over time.

To kick off the new partnership in Africa, Ellis and some of the CCR team traveled to Rwanda and throughout the continent in May 2023, where they were able to meet with community leaders to get a better understanding of some of the various local contexts and issues. For example, a major issue affecting equity in Nigeria is climate and related refugee issues, while in Kenya, there are longstanding inequities among those who live in Kibera, often described as Africa's largest slum, where there is no plumbing, electricity or basic infrastructure. "It's actually quite humbling that this is a shared experience," Ellis said of the desire of communities throughout Africa, the U.S. and other parts of the world to work toward greater equity and resilience. The beauty of the CCR framework, she added, is that it can be applied to communities irrespective of location because it allows leaders to think about equity through different lenses, such as the economy, gender, education, etc., not just place.

The work so far has also been a shared learning experience. For example, the CCR team got invaluable insight into the racial healing process within local communities in South Africa, while many of those communities are now interested to learn from CCR about how they can establish a framework that would help them to measure what repair looks like.

"This issue with regard to racial inequity is global," Ellis said. "I don't think any one country has done worse or better." The COVID-19 pandemic also made clear the fact that communities cannot move forward if they're leaving people behind. "We as a human species are in this together," Ellis said. "I think that's why it's important to apply this work from a global perspective."

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HEALTH POLICY & MANAGEMENT





ANNE MARKUS, PhD, MHS, JD HEALTH POLICY AND MANAGEMENT CHAIR

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As the field of health policy has professionalized and become recognized as its own discipline, it is time to rethink how we teach our students the skills, whether analytical or professional, to be successful in the workplace of today and tomorrow.

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Q: Reflect on the past year. What has been your department's greatest achievement or rewarding experience?

A: From an academic standpoint, the HPM community is extremely proud of its most recent U.S. News and World Report rankings: both of our MHA programs are #8 in the nation, and HPM, which was rated for the first time as a specialty within the field of public health, came at #7. It is a testament to the brilliance, hard work and dedication of our faculty and our students alike, all of whom are wonderful ambassadors for all of our programs.

Q: Who in your particular field do you most admire and why (living or dead)?

A: I recently reread "The Science of Muddling Through" (1959), "Policy Analysis" (1958), and "Still Muddling, Not Yet Through" (1979) by Charles Edward Lindblom as I was preparing a training session on health policy for a European audience. Now that I've been a health policy analyst and researcher for three decades, I can really appreciate his ability to write and more so how insightful he was. It struck me how relevant his work still is even though some of this was published before Medicare and Medicaid became law (and uses outdated he/him/man terminology). His writing and his arguments are easy to follow and represent major contributions to our understanding of public policy and administration, policy analysis and the politics of policy making and realities of making decisions on complex problems. While the focus of this work is broader than health, it provides useful parameters for an academic department such as HPM to continue shaping and reshaping the future of how we teach and practice



health policy and management, which are now pretty well-established professional fields of scholarship and training – but not completely. Lindblom was a Professor of political science and economics at Yale and died in 2018. He was 100 years old.

Q: What is your hope for the future of your field?

A: As the field of health policy has professionalized and become recognized as its own discipline, it is time to rethink how we teach our students the skills, whether analytical or professional, to be successful in the workplace of today and tomorrow. Health administration/management is farther along in this regard, and there is much to be learned from that particular field. At the same time, the field of health administration/management would benefit from more integration of population health and health care/public health policy into its curriculum so that future leaders of health care organizations are more sensitive to the makeup of the communities they serve and better prepared to effectively respond to what their communities actually need.

With Gratitude: Three Decades of Sara Rosenbaum's Impact on Public Health Policy

Sara Rosenbaum, known for her pioneering approach to translating policy into law and her exceptional legal mind, has forged a remarkable career in public service and the field of public health. Having been at the forefront of American politics and policy for nearly five decades, Sara Rosenbaum has had a front-row seat to national health policy, making significant contributions to health equity, with a special emphasis on addressing the needs of medically underserved populations, particularly children.

Sara's journey began in Milford, Connecticut, just outside New Haven, where her father served as a teacher at what was then a boys' prep school. She hails from an immigrant family with a rich history. "I came from a very interesting family," Rosenbaum recalls. "It was a beautiful immigrant story. My grandfather and his four brothers arrived in the late 1800s, all brilliant minds. Yale had a program for inner-city immigrant children, and my grandfather and his brothers worked their way through as tutors, creating what would become the Milford Preparatory School."

A 1970 graduate of Milford High School, Rosenbaum was politically involved in anti-Vietnam war efforts in addition to normal school activities. She received her BA from Wesleyan University and went on to earn her JD from Boston University School of Law. Her grandfather was disappointed: "My grandfather wanted me to be a teacher, not a lawyer," Rosenbaum reveals. "He considered being a lawyer akin to being a tradesperson, which, while useful, was not, in his mind, a profession. It seems it took me longer to fulfill his wishes."



After earning her JD, Rosenbaum embarked on her career as a legal services attorney in Vermont. From there she went to the National Health Law Program, deeply respected for its advocacy, and ultimately to the legendary Children's Defense Fund, led by pioneering civil rights lawyer Marian Wright Edelman. In 1991, then Harold and Jane Hirsh Professor Dr. Peter Budetti recruited Rosenbaum to a senior staff position within the nascent Center for Health Policy Research, which she joined in January 1992. In 1997 she assumed the Hirsh professorship, joined the Department of Health Management and Policy, and in 2002 became the founding chair of the Health Policy Department to the newly minted GW School of Public

Health and Health Services (as it was originally known).

Rosenbaum combined her GW work with a stint in the White House from 1993 to 1994, working for President Clinton on the administration's national health reform effort. (She got to know both the President and First Lady during her time at CDF, where both had worked and whose board Mrs. Clinton chaired before the 1992 election.) While health reform failed, Rosenbaum worked on other important reforms, most notably the development and enactment of the Vaccines for Children program, whose benefits for low-income, medically underserved, and uninsured children flourish to this day.

At GW, Rosenbaum combined health policy scholarship and practice, working on Medicaid reform; expanding critical safety net health care programs such as community health centers, Title X family planning, and the National Health Service Corps; and reproductive health, including abortion. Her work turned on the ability to present evidence of need and program effectiveness. As a teacher and health scholar, she has reinforced the need to base policy on evidence as a teacher. "If you're heading to Capitol Hill, it's essential to bring fact sheets that make use of key statistics and research. That has always been key to policy practice success: research and facts."

Sara spent her three decades at GW specializing in health policy education and practice, firmly believing that the only way to teach health policy is to do health policy through research and practice. Over her tenure at GW, she was responsible for securing hundreds of millions of dollars in health policy research funding, both for her work and her deeply loved and admired health policy colleagues. Among her grants were tens of millions of dollars in public and private funding to study Medicaid transformation, and ongoing support over the entirety of her career from leading health foundations, including the Commonwealth Fund, the Kaiser Family Foundation, and the Robert Wood Johnson Foundation.

Rosenbaum counts among her most important extramural support a special gift, first received in 2007, from the RCHN Community Health Foundation that enabled the Department of Health Policy to grow the Geiger Gibson Program in Community Health Policy into the nation's academic home for community health center policy work. In 2022, RCHN Community Health Foundation made a major gift to the Geiger Gibson Program to ensure its continued growth.

In 2012, Rosenbaum founded what would grow into a pro bono amicus brief project that today remains supported almost entirely through the volunteer efforts of her colleagues and contributed time from some of Washington, DC's most prominent law firms. The project's purpose is to ensure that the voices of public health law deans, scholars and organizations are heard in the major judicial cases of the day, such as national health reform, protections for immigrants and the right to abortion. Its work continues today.

Rosenbaum reflects frequently on her 30 years at GW, which she considers the culmination of her career. "I came to GW as an active lawyer, on the staff of a research center, working at the intersection of health care and civil rights, not as an academic researcher," said Rosenbaum. "It was possible only to grow from a practicing lawyer into an endowed Professor and founding Chair at GW. I am not sure such a transition would be possible today, as GW has assumed a far more traditional academic profile. I consider myself supremely fortunate and a bit of a unicorn."

Rosenbaum has been consistently recognized as one of the most influential policy minds working in Washington, including multiple citations by Washingtonian as one of the "500 Most Influential People Shaping Policy." Her awards include the Richard and Barbara Hansen Leadership Award; the Adam Yarmolinsky Medal from the National Academy of Medicine, where she has served since her 2010 election; a national excellence award from the American Public Health Association: the 2022 Welch-Rose Award from the Association of Schools of Public Health; and most recently, the first-ever Vanguard award for her work on national vaccine policy. Her public service has included appointment as a founding Commissioner of the Medicaid and CHIP Payment and Access Commission (MACPAC), which advises Congress on national Medicaid and CHIP policy, and appointment to the Advisory Committee on Immunization Practice (ACIP), which advises the CDC on national vaccine policy. Along the way, her scholarship has been widely hailed; in 2018, she was named one of the Top 10 most cited health law scholars.

Sara spent her three decades at GW specializing in health policy education and practice, firmly believing that the only way to teach health policy is to do health policy through research and practice. Over her tenure, she was responsible for securing hundreds of millions of dollars in health policy research funding, both for her work and her deeply loved and admired health policy colleagues.

Sara retired at the end of 2022. Dean Lynn Goldman celebrated Sara's many contributions at the 25th Anniversary of the School in October. "Sara's dedication to equitable and effective health care policies, particularly in areas like Medicaid and Medicare, maternal and child health, has had a profound impact, especially on disadvantaged and minority populations," said Goldman. "The world is a better place because of her work; our school has greatly benefited from her contributions, and our gratitude for her commitment to GWSPH is unending."

As a Professor Emerita, Rosenbaum continues to be a mentor, lecturer, and research collaborator, deeply committed to nurturing young individuals interested in improving health care for the less privileged. She remains a proud part of the GWSPH success story, and her contributions to the field leave an enduring legacy for future generations of public health scholars and researchers.

Meet New Department of Health Policy and Management Professor Salama S. Freed

Salama Freed, Ph.D., has always cared about plugging the gaps in systems where vulnerable people can fall through the cracks. At GW, she's found a place where she can pursue this passion in many ways. "I wanted to do teaching, research, and policy," she says. "At GW, I can do that."

An Assistant Professor in the Department of Health Policy and Management, Freed is most interested in health policy issues related to aging. This interest sparked in graduate school, while she was studying Medicare and long-term care and, at the same time, helping her father navigate the complicated health care system after he had a serious health crisis. That's when she experienced firsthand what older Americans have to deal with.

Today, Freed's research focuses on improving the aging experience for older adults. In particular, she studies the effects of policy and care delivery disruptions on older adults' access to care, with a focus on Medicare and long-term care. She likes that Milken Institute SPH

Freed hopes her work will help bring to light the talents and contributions brought to the table by older Americans. She's currently working on creating a course on healthy aging, where she'll try to break down some of the misconceptions around getting older.



is very hands-on and service-oriented and experienced with working with nonprofit organizations that advocate for vulnerable and underserved populations.

"GW has a wonderful reputation, and it's a great school, but I was attracted to Milken Institute SPH because of its focus on actual teaching," Freed says. "I love research, but we have so many students with connections to government, I feel like it's important to make sure we're reaching those people, and also letting them share their experiences and insights with each other."

Prior to joining the Milken Institute SPH in 2022, Freed was a health policy fellow

at the National Pharmaceutical Council and Duke-Margolis Center for Health Policy and a postdoctoral researcher at the University of Pennsylvania's Leonard Davis Institute for Health Economics. She earned her Ph.D. in Economics at Vanderbilt University.

Freed hopes her work will help bring to light the talents and contributions brought to the table by older Americans. She's currently working on creating a course on healthy aging, where she'll try to break down some of the misconceptions around getting older. "For example," she says, "the myth that at a certain age, you're not really contributing to society anymore."

Report Highlights the Negative Impact of Unwinding COVID-Era Medicaid Enrollment Policy

The study finds that up to 2.5 million community health center (CHC) patients could lose their Medicaid coverage once continuous enrollment ceases. Continuous Medicaid enrollment was a centerpiece of the 2020 Families First Coronavirus Response Act, which stabilized coverage for millions of beneficiaries who otherwise might have lost it during the COVID-19 pandemic, the worst public health emergency in a century. The Consolidated Appropriations Act, passed by Congress at the end of 2022, formally ended the policy on March 31, 2023. Although states are given 14 months to complete unwinding and reinstate the normal eligibility determination process, federal enhanced funding levels to complete redeterminations last only through the end of 2023, meaning that states will feel financial pressure to move rapidly.

A report from the Geiger Gibson / RCHN Community Health Foundation Research Collaborative examines the financial and patient care impact of unwinding Medicaid's continuous enrollment policy. The study finds that up to 2.5 million community health center (CHC) patients could lose their Medicaid coverage once continuous enrollment ceases. This could, in turn, trigger a loss of \$1.5 billion to \$2.5 billion in patient revenue, which amounts to between 4% and 7% of national total health center revenue. A revenue impact of this size means that CHCs, the nation's largest primary care system for medically underserved rural and urban communities, will be able to serve between 1.2 million and 2.1 million fewer patients and employ 10.7 thousand to 18.5 thousand fewer staff. The study is based on estimates of the unwinding impact prepared by the Urban Institute as well as data on community health centers from the 2021 Uniform Data System data. The report authors believe that these estimates likely are low, since they were based on 2021 health center data and the number of CHC patients likely increased over the 2022-2023 time period.

"The end of continuous coverage will compromise patient care, disrupting continuity of service for many individuals and families, and substantially decreasing community health center Medicaid revenue, which will further erode capacity," said Feygele Jacobs, Professor and Director of the Geiger Gibson Program at GW Milken Institute School of Public Health. "It is essential that health centers receive the support they need to serve their patients as pandemic-era policies wind down."

Leighton Ku, professor of health policy and management and the Director of the GW Center for Health Policy Research, and his team conclude that while careful unwinding procedures to reduce the risk of erroneous terminations are essential, CHCs face an urgent need for increased grant funding to offset these losses because community health centers derive 40 percent of their annual revenue from Medicaid. "The continuous enrollment policy led to substantial increases in Medicaid enrollment during the public health emergency," Ku, said. "While it is difficult to project precisely, the end of continuous enrollment will clearly trigger not only losses in coverage, but also substantial decreases in the very revenue that health centers need to provide essential services."



Professor Jeff Levi Retires After Distinguished Career in Public Health

Jeff Levi, professor of health policy and management, retired from GWSPH on June 30 and began his life as an emeritus professor on July 1.

Professor Levi's career has been dedicated to the intersection of public health, the health care system, and the multi-sector collaborations that are required to improve health. He is nationally known as a public health policy expert and is sought after by government officials and private funders alike for his strategic sense and expertise in emergency and non-emergency responses, particularly at a national level.

"We celebrate Jeff's many significant contributions — to our school and university, to the field of academic public health and health policy, and to policies that have lifted the health of millions across the U.S.," said Lynn Goldman, Dean of the Milken Institute SPH. "Jeff's intellectual rigor, ability to translate complex policy issues into actionable solutions, and devotion to students have made him one of our school's best scholars and most valued faculty members. He will be sorely missed[SD1]!"

Prior to joining GW in 1997, he was the Deputy Director of the Office of National AIDS Policy under the White House Domestic Policy Council. In this role, he made key policy decisions regarding programs, budgets, and policies for all federal agencies. Before joining the White House staff, he was Director of Public Policy and Program Development for the AIDS Action Foundation/AIDS Action Council following two years as its Director of Government Affairs. He was also Director of Governmental and Political Affairs and then Executive Director of the National Gay and Lesbian Task force in the mid-1980s.

Professor Levi was co-director of the Center for Health Services Research and Policy between 1999 and 2002 and became its managing director for one year in 2002-2003. Later on, he was Executive Director of Trust for America's Health (TFAH) for almost 10 years, during which time he led the organization's advocacy efforts to modernize the U.S. public health system. Under his leadership, TFAH assumed a lead role in the development and enactment of the Affordable Care Act and its emphasis on prevention, services and funding. He currently leads as Director of the Funders Forum on Accountable Health, which brings together public and private funders supporting initiatives addressing the social determinants of health in the context of a reforming health care system.

"Jeff's passion and dedication to policy and population health has been a great inspiration to all of us," said Anne Markus, professor and Chair of the Department of Health Policy and Management. "We thank him for his leadership in the field of public health and for providing students with his knowledge in the classroom."

Since 2003 he has been an active member of the Department of Health Policy and Management's Curriculum Committee. In 2004, he co-chaired the School's Core Policy Course Development Committee and was a member of the Milken Institute School of Public Health Curriculum Committee between 2016 and 2019 and assumed the role of chair in 2018-2019.

Professor Levy has received multiple recognitions, including being honored with the APHA Executive Director Citation in 2012 and the 2012 Directors of Health Promotion and Education, Health Promotion and Education Advocacy Award. Levi was appointed by President Obama to the Advisory Group on Prevention, Health Promotion, and Integrative and Public Health, which he chaired from 2011 to 2016. During spring of 2022, he was invited as one of four staffers for the Commonwealth Fund Commission on a National Public Health System. He recently completed a five-year tenure, including the fifth and final year as chair, on the Board of Directors of the Institute for Public Health Innovation, a DC-based nonprofit.

"My 25-plus years were definitely an 'only at GW' experience – where I was able to combine teaching, research, and active engagement with policy making in a way that is unique for academic institutions," said Jeff Levy.
Medicaid Reform Lies at the Heart of Efforts to Address the US Maternal Health Crisis

Medicaid must be part of any solution to address the current maternal mortality crisis and racial inequities in the United States, according to a new analysis by Milken Institute SPH researchers Sara Rosenbaum, Professor Emerita of Health Law and Policy; Anne Markus, Professor and Chair of the Department of Health Policy and Management; Caitlin Murphy, Rebecca Morris, Maria Casoni, and their colleague Kay Johnson.

The authors note that in 2021, Medicaid paid for 41% of all births. In addition, they say that improving maternal health for Medicaid beneficiaries must involve Medicaid-managed care plans, which together enroll more than 70% of all Medicaid beneficiaries nationwide.

To better understand the relationship between managed care performance and maternal health, the researchers analyzed Medicaid contracts from all states that used comprehensive managed care in 2022. To guide their review, the team also conducted an extensive review of maternal health best practices and research studies from pre-pregnancy through the postpartum period.

The findings indicated that Medicaidmanaged care contracts often approached the maternal health continuum in a fragmented and incomplete manner. The contracts reflected variations among states in how key aspects of maternal health were being addressed.

The authors offer several recommendations for Medicaid plans and the Centers for Medicare and Medicaid Services, based on their detailed findings and contract tables, which are fully available online.

They assert that managed care and maternal health can be improved by fully incorporating maternal health continuum care into contracts, which serve as blueprints for establishing and overseeing performance.

The authors further advocate for the development of fully integrated maternal health guidelines across the entire continuum of care, facilitated by CMS in collaboration with states, plans, providers, experts, and consumers. This step could immeasurably aid in the development of effective improvement strategies. Such guidelines, they note, could be accompanied by a formal best practices initiative that shares innovative approaches to managed care and maternal health to ensure access to the full maternal health continuum.

Read more about the analysis and access detailed findings in a blog by the Commonwealth Fund titled "The Road to Maternal Health Runs through Medicaid Managed Care Plans."

Majority of US States Barely Receive a Passing Grade on Maternal Mental Health

Out of the roughly 600,000 women diagnosed with postpartum depression and other postpartum-related mental health disorders each year, only about 75% will receive treatment, indicating a significant public health need.

When left untreated, these disorders can have lasting impacts on women's wellbeing and family stability and children's development. Untreated maternal mental health disorders are also estimated to cost the U.S. \$14.2 billion annually.

To help quantify and alleviate maternal mental health issues in the U.S., the Policy

Center for Maternal Mental Health, in collaboration with Caitlin Murphy, a research scientist at Milken Institute SPH, recently created a report card that scores each state's efforts to identify and treat mental health disorders among new moms.

The report cards grade states in three key domains: providers and programs, screening requirements and reimbursements, and insurance coverage and payment.

"The results of this first ever grading system are not good, with 42 states receiving a D or below," said Caitlin Murphy, whose research supported the creation of the report cards. "The highest grade any state received was a B, and this was in just one state — California — where the Policy Center has indicated that significant recent philanthropic, legislative and advocacy efforts have occurred."

Given this new report card, however, states can now benchmark their performance against other states' and compare and improve their own performance year over year, said Joy Burkhard, executive director of the Policy Center.

New Challenges for Clinicians Treating Opioid Use Disorder, Study Says

A Milken Institute SPH study by authors Clese Erikson and Qian Luo, both at the GW Fitzhugh Mullan Institute for Health Workforce Equity, found a disconnect between the number of U.S. clinicians who are able to prescribe buprenorphine, or Suboxone, to help treat opioid use disorder and those clinicians who are actually writing prescriptions — highlighting a possible blind spot in the fight against opioid-related deaths.



Buprenorphine is one of several drugs that can be used to treat opioid use disorder, and increasing access to this medication



Buprenorphine is one of several drugs that can be used to treat opioid use disorder, and increasing access to this medication is essential in the U.S. strategy to fight the opioid crisis. is essential in the U.S. strategy to fight the opioid crisis. According to the Centers for Disease Control and Prevention the number of overdose deaths in the U.S. increased by nearly 30% from 2019 to 2020. Most of the drug overdose deaths in 2020 involved an opioid.

Given the small percentage of provider participation, the study highlights a potential hole in recent U.S. policies aimed at reducing or removing waiver requirements.

"With the removal of the waiver entirely in the 2023 Consolidated Appropriations Act, this study brings into question the assumption that eliminating the waiver will lead to substantial increases in buprenorphine access," the authors said. "While removal of this barrier may make it easier for clinicians to begin prescribing, additional investments may be needed to build and support clinicians treating opioid use disorder."

National Center for Medical-Legal Partnership Leads HRSA-Funded National Training and Technical Assistance Partner

Adopting a collective impact approach, NCMLP actively collaborates with other HRSA-funded NTTAPs to coordinate the development and delivery of training and technical assistance resources that address the current and emerging needs of the nation's nearly 1,400 health centers. The Health Resources & Services Administration (HRSA) has successfully renewed the Milken Institute SPH based National Center for Medical-Legal Partnership's (NCMLP) three-year cooperative agreement as a National Training and Technical Assistance Partner (NTTAP). As of July 1, 2023, NCMLP embarked on its 10th year of endeavor, striving to assist community health centers across the country in implementing the medical-legal partnership approach. The initiative aims to address the health-harming legal and social needs of patients and their communities.

The NCMLP's primary objective is to empower health organizations nationwide to integrate legal services as a standard component of their response to social needs.

"As we embark upon the new NTTAP project period, we are eager to enhance the effectiveness and accessibility of our technical assistance resources by utilizing data and fostering stronger relationships with the growing MLP field," said Bethany Hamilton, JD, Co-Director of NCMLP and Project Director for the HRSA NTTAP. "We are excited to collaborate with past National Training and Technical Assistance Partners. And look forward to producing needed new resources on maternal health equity and Medical-Legal Partnership with HRSA's newest partner, Renaye James Healthcare Advisors."

Adopting a collective impact approach, NCMLP actively collaborates with other HRSA-funded NTTAPs to coordinate the development and delivery of training and technical assistance resources that address the current and emerging needs of the nation's nearly 1,400 health centers.

"To be entrusted by HRSA with this important responsibility validates NCMLP's role as a national leader in efforts to advance health equity and the role of MLP itself in helping multidisciplinary systems understand and address nonmedical drivers of health," said Joel Teitelbaum, JD, LLM, Co-Director of NCMLP and professor of health policy and management at GW Milken Institute SPH. "This funding is key to cultivating sustainable MLP models and comes at a time when the health center workforce seeks transformative, collaborative, and evidence-based solutions to help it meet its mission."

NCMLP eagerly anticipates collaborating with other NTTAPs and MLP stakeholders to deliver new resources and tools aimed at advancing the health center MLP model, Teitelbaum added.

NCMLP's mission is to mainstream a medical-legal approach to individual and population health. NCMLP received its first National Cooperative Agreement award from HRSA in 2014 for the purpose of cultivating and supporting medical-legal partnerships at community health centers across the country. For more information about NCMLP visit www.medical-legalpartnership.org and follow NCMLP on Twitter.

PREVENTION & COMMUNITY HEALTH





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The faculty and staff of the Department of Prevention and Community Health invests in our hope for the future on a daily basis through our students.





DEANNA KERRIGAN, PhD, MPH PREVENTION AND COMMUNITY HEALTH CHAIR

Q: Reflect on the past year. What has been your department's greatest achievement or rewarding experience?

A: At the beginning of the 2022-2023 academic year and in response to findings from our department's self-study, we initiated a mentoring program for junior and new-to-the-department faculty. The program, which draws on resources provided through the National Center for Faculty Development and Diversity (NCFDD), is built around a need for attention to inclusion and equity identified in the self-study and aims to meet mentee-identified gaps in mentorship and resources with the support of senior faculty "champions." Furthermore, we ended the academic year with completion of a five-year strategic plan for the department also based on findings from our self-study. The plan includes objectives, tasks, metrics and timelines in each of the following five domains: academic training; practice; research; diversity, equity and inclusion; and mentoring for faculty, staff and students.

Q: Who in your particular field do you most admire and why (living or dead)?

A: One of the privileges of being a department chair in public health is witnessing up close the generosity and dedication of colleagues as they work to advance our impact in academic training, practice and research. I deeply admire these colleagues and the work they are doing at the school, university and community level and am deeply grateful for the recognition that they are receiving for these efforts. At the school level, PCH faculty are leading the work of the School's Office of Diversity, Equity and Inclusion and had their work on health misinformation showcased at the school's 25th anniversary celebration. At the school level, faculty are serving as leaders of its Atlantic Fellows for Health Equity program. At the community level, a consortium of PCH faculty, staff and students collaborated with members of the DC Center for AIDS Research's Community Partnership Council on the development of a guide for academic-community partnerships. Recognition at the university level has included awards for research from the GW Cancer Center and for dedication to academic training including from GW's student athletes for the professor who makes the greatest contribution to their academic success and for "Best Professor" from the GW student newspaper. At the school level, PCH faculty have been recognized for their excellence in graduate teaching.

Q: What is your hope for the future of your field?

A: The faculty and staff of the Department of Prevention and Community Health invests in our hope for the future on a daily basis through our students. We are gratified to witness their growth and accomplishments and the contributions they are already making to our field. Student success highlights from the past year include: the selection of doctoral student Simone Sawyer to the George Washington University chapter of the Edward Alexander Bouchet Graduate Honor Society, the first school of public health student to ever have received this honor at GW; the placement of master's



student Luz Venegas and Simone as CFAR Diversity, Equity and Inclusion Pipeline Initiative (CDEIPI) Graduate Student Leads; we celebrated the first cohort of Master's students in the Latino Scholars in HIV/AIDS Research Education program; welcomed a second cohort into GWSPH's first T32 training grant, "Training Program in Approaches to Address Social-Structural Factors Related to HIV Intersectionally (TASHI)"; and finally were able to fully fund a greater number of doctoral students than ever before.



Innovative Community Program Tackles Escalating Gun Violence

US rates of violent crime and homicide spiked during the pandemic and, in many parts of the country, have not receded to pre-pandemic levels. In DC, for example, violent crime increased 28% between 2021 and 2022 and homicide rates jumped by 14% between 2020 and 2021.

Homicide, typically with a firearm, is the third leading cause of death for young people in the US, and gun violence disproportionately affects African American and other minority youth, especially young men. This can be especially true in urban settings, where a variety of factors contribute to a perception that violence can be a pathway to success.

To help combat rising rates of gun violence in DC, a new Milken Institute SPH program is launching a novel community-level youth firearms prevention program that will demonstrate alternative avenues to success for the city's young people. Together with community partners, the program will work to change perceptions around the role of violence as well as create actual changes in available opportunities for more positive avenues among youth. For example, the project will aim to identify potential nonviolent personal and career trajectories that are meaningful, attractive and rewarding for young people.

"Gun violence is a large and continuing problem in urban neighborhoods with a history of poverty, racism, exclusion and a lack of basic resources," said Mark Edberg, professor of prevention and community health, who is principal investigator on the project. "Kids growing up in such areas may see violence as one of the few paths to gaining respect, money or power. Our project aims to implement changes so that youth see and experience multiple nonviolent pathways to success," with a goal of reducing the current level of violence.

Parents Could Be Key to Reducing HIV Risk in Young Gay/Bisexual Men

New research from Milken Institute SPH suggests an untapped resource in the effort to teach gay and bisexual young men about safe sex: their parents.

The results of the first-of-its-kind study are critical because gay and bisexual youth make up nearly 80% of all HIV infections among teens. Until now, there have been few public health interventions aimed at reducing the HIV risk among this group.

"By focusing on the parents, this study shows we might be able to reduce HIV risk among gay and bisexual male youth," said David Huebner, professor of prevention and community health at the Milken Institute SPH and the study's lead author. For the study, researchers recruited parents of sons aged 14-22 who had come out as gay or bisexual at least a month earlier. Half were assigned to a control group, which watched a 35-minute documentary film designed to encourage parents to better understand and accept lesbian, gay or bisexual children. The other half of the parents were enrolled in an online program that included videos and instruction on how to improve communication and engage in other parenting behaviors that help promote sexual health.

By the end of the three-month study, both parents and sons independently reported that parents in the intervention arm talked more to their sons about sexual health. "To our knowledge, this is the first intervention shown to increase parent behaviors supportive of sexual health for gay or bisexual youth," Huebner said. "The next step is to demonstrate that these changes in parent behaviors translate into better sexual health outcomes for the sons. We think it has great potential to help reduce the high rates of HIV among this vulnerable population."

The study was funded by the National Institute of Mental Health, which granted Huebner and his team additional funding to conduct a larger trial of the intervention. Interested families can learn more about the study and sign up to receive updates at www.parentwithlove.org.

New Website to Help Alleviate Youth Mental Health Crisis

Many young people today are still feeling the effects of the COVID-19 pandemic via anxiety, depression and other mental health issues. In fact, in 2021, the American Academy of Pediatrics, the American Academy of Child and Adolescent Psychiatry and the Children's Hospital Association joined forces to declare a "National State of Emergency" that the organizations stated was "inextricably tied to the stress brought on by COVID-19 and the ongoing struggle for racial justice."



According to the American Psychological Association, Black youth may be especially feeling the brunt of this crisis as they are historically less likely to seek mental health treatment due to a range of issues including stigmas and shortages of diverse mental health professionals.

In light of this emergency, the Milken Institute SPH Center of Excellence in Maternal and Child Health (MCH) recently partnered with Beacon House, a Black-led, Black-benefiting nonprofit afterschool education and youth-development organization serving children and families in Northeast Washington, DC, to launch a new mental-health-focused website for DC youth and their parents and caregivers. The website provides resources, including podcasts, TV shows, helplines, and apps, on topics such as grief and loss, suicidal ideation, COVID-related anxiety, bullying, community violence and more.

Beacon House and GW developed the website as part of Beacon House's Building Resilient Youth through Connection and Empowerment (BRYCE) initiative.

"We are proud to partner with Beacon House on the Building Resilient Youth through Connection and Empowerment project," said Associate Professor Monica S. Ruiz, co-director of the GW MCH Center of Excellence's Innovation Lab. "Mental health supports are needed now more than ever to help youth cope with stressors, build resilience and thrive. We are working with Beacon House to provide resources tailored to meet the specific needs of the community it serves."

Professor to Study Impacts of Structural Racism and Discrimination During Adolescence on Substance Use, Psychological Distress and Criminal Justice Outcomes

Dr. Tamara Taggart, Assistant Professor in the Department of Prevention and Community Health, is co-principal investigator on a newly awarded project funded by the National Institute of Drug Abuse (NIDA), "Measuring the impact of structural racism and discrimination during adolescence on substance use, psychological distress, and criminal justice outcomes in adulthood." The study builds on a previous longitudinal study of racially diverse adolescents (37% Black, 50% White) living in predominantly rural counties in North Carolina. The current study will evaluate the unique and interactive effects of adolescent experiences among the original study participants who are now in their 30s, with structural racism and discrimination

(SRD), interactions with the criminal legal system, mental health and substance use in adulthood. It will also assess the potential buffering effects of community resilience factors such as residential stability, voluntary service organizations, mobilization, and collective efficacy, all of which may be leveraged to combat the effects of SRD. In addition to participant surveys, the study will review students' school records, public criminal records, the Census, county tax-value property assessments, Google Maps and the American Community Survey to assess the impact of racially segregated peer networks and neighborhoods, racially disproportionate disciplinary actions, neighborhood disadvantage, racially biased housing values and disproportionate penetration by predatory



lenders. Taggart and her team plan to use data collected through the current study to model the impact and cost of a range of potential policy and community level interventions that could be employed to address SRD and its impact on adolescent health and development outcomes.



Dr. Derek Dangerfield II, Associate Professor in the Department of Prevention and Community Health, was recently awarded a UG3 award from the National Institute of Mental Health (NIMH) and the National Institute of

Professor Wins Award From the National Institute of Mental Health and the National Institute of Allergy and Infectious Diseases

Allergy and Infectious Diseases (NIAID) entitled "Identifying socioecological profiles that impact changes in care outcomes among Black sexual minority men living with HIV." Dangerfield is collaborating on the project with Dr. DeMarc Hickson, Executive Director of Us Helping Us (UHU), a community-based organization that provides services for underserved and marginalized populations in the greater Washington, DC, area. With this study, Dangerfield, who was the first faculty affiliate at UHU and is a member of the UHU board, and Hickson are leading the largest prospective cohort focused on Black sexual

minority men living with HIV (BSMM LWH) ever conducted. The study aims to identify the HIV care riskscape for BSMM LWH and to examine how multilevel factors impact changes in retention in HIV care, treatment adherence and viral suppression. In addition to filling a critical gap in efforts to end the HIV epidemic (EHE) in the United States with its focus on an underserved population living in high priority EHE locales, the study presents a valuable opportunity for GWSPH students to engage in research on socio-ecological barriers that impact HIV care outcomes in a highly marginalized population.

GWSPH Health Behaviorial Scientists and CCAS Department of Psychology Team Up to Fund Students focused on Social Structural Factors in HIV Prevention

The Milken School SPH, in collaboration with the Columbian College of Arts and Sciences (CCAS), launched an interdisciplinary Ph.D. partnership last fall. Working together, they are preparing the next generation of community-engaged researchers to develop and lead intersectional approaches to promote health equity and improve HIV prevention, treatment and care.

This new collaboration, Training Program in Approaches to Address Social-Structural Factors Related to HIV Intersectionality (TASHI)—led by Deanna Kerrigan, Milken Institute SPH Chair and Professor of Prevention and Community Health; and Lisa Bowleg, CCAS Applied Social Psychology Professor and founding Director of GW's Intersectionality Research Institute—is bringing a cutting-edge social, structural, and community-driven lens to HIV. TASHI is supported by a \$ 1 million Institutional Research Training Grant (T32) from the National Institute of Mental Health, a funding opportunity that provides innovative research training opportunities for predoctoral students and postdoctoral fellows. The first cohort of TASHI students began their training this past fall. Over the course of the year, they examined how factors like race, gender, legal residency status, addiction, and access to transportation factor into HIV prevention, treatment and care. So far, the experience has only heightened their drive to continue in this field.

"This year with TASHI—with the access to both state-of-the-field scholarship and the cohort of faculty, community, and peer mentors deeply invested in that scholarship—has supported me in a way that allows me to be increasingly confident in my path and my work and my capacity to meaningfully contribute to the field," says student Arianne Malekzadeh.

"TASHI has helped me expand my thinking on the socio-structural factors that influence health, gain more skills in community-engaged research, and provided professional development opportunities," says Simone Sawyer. "Training programs like TASHI will prepare the next generation of public health scholars for the current and future public health issues we are facing."

In addition to completing their coursework, Malekzadeh and Sawyer joined Kerrigan and Bowleg as co-authors on the recently released "Advancing Equity and Fostering Change: A Guide for Academic-Community Partnerships in the DC Center for AIDS Research."

Ph.D. Student Selected for Edward Alexander Bouchet Graduate Honor Society

Milken Institute SPH doctoral student Simone Sawyer was recently inducted into the George Washington University chapter of the Edward Alexander Bouchet Graduate Honor Society, which recognizes outstanding scholarly achievement among students who have traditionally been underrepresented in the academy.

Named for the first self-identified African American to earn a doctorate from an American university, the society was chartered jointly by Yale University and Howard University in 2005 and now has chapters at almost 20 schools throughout the US. The society aims to create an environment that will support its members in their academic and leadership pursuits.

Sawyer was nominated by her advisors Deanna Kerrigan, professor and chair of the Department of Prevention and Community Health, and Olga Acosta Price, associate professor and director of Milken Institute SPH's Center for Health and Health Care in Schools. "They believed it would be a great opportunity to highlight the work that I'm doing," Sawyer said. "I do translational community research, which looks to understand the processes and implementation factors that impact how public health programs can benefit the populations it's intended to serve."

Sawyer's dissertation research is focused on exploring and describing different pathways for youth-driven public health policy and practice change in DC. "I work for the Center for Health and Health Care and Schools, coordinating with young people, the Department of Behavioral Health, parents and community-based organizations to increase access to mental health services and programs in schools and communities."

For example, while working with a group of DC young people, Sawyer helped to implement the group's idea to create virtual wellness centers in some of the city's schools. "We got a little pushback or what I like to call healthy tensions, with some of the decision makers because they were worried about the potential for young people to start self-diagnosing themselves with so many online resources," Sawyer said. "But one thing young people illuminated to us throughout the process is that they're going to be on the internet anyway, whether we like it or not, so it's better to partner with them and try to help them understand which health information is accurate versus not instead of dismissing the entire idea overall."

Sawyer said that her selection for the Bouchet Graduate Honor Society provided validation of her work and commitment to public health. "It feels nice to be affirmed and have a diverse network because unfortunately there still aren't many people at GW Milken Institute School of Public Health who look like me in Ph.D. programs and/or are engaged in this kind of research," she said. "The Bouchet Graduate Honor Society lets me know that GW is doing the practical work to make sure I feel seen in ways that I might not have—nor my ancestors might have—in the past."













World Health Summit Regional Meeting Hosted by Milken Institute SPH



The World Health Summit (WHS) Regional Meeting 2023, Washington, DC, took place on Thursday, April 13, an informative day of 57 speakers spread across ten different sessions. Under the leadership of WHS 2023 International President and Senior Associate Dean of Research and Innovation at the Milken Institute SPH, Dr. Adnan Hyder, the international meeting for global health brought together stakeholders from politics, science, the private sector and civil society from around the world to set the agenda for a healthier future.

Hosted this year by The George Washington University, the Summit was a hybrid event and the first WHS regional meeting held in the United States. Nearly 1,500 participants from around 105 countries took part online and on-site in the nation's capital. Experts and policymakers, including two World Health Organization regional directors, gathered for the interdisciplinary public health Summit, aiming to bridge the gap between theory and practice for better worldwide health outcomes.

The choice of GW Milken Institute SPH as host "means that our peer institutions



Milken Institute SPH Professor and Senior Associate Dean of Research and Innovation Adnan Hyder, this year's WHS international president, with the summit's ursine mascot, the World Health Summit Bear. (Adnan Hyder)



around the world have trust and faith in our capacity to engage the global community," said Adnan Hyder. "This summit is a major opportunity that positions GW amongst the world's leading institutions in global health and global diplomacy," said Hyder, a senior associate dean for research and innovation and professor of global health at the Milken Institute SPH. "We [had] hundreds of people from dozens of countries around the world coming to talk about critical issues, and I'm excited to showcase the engagement of the George Washington University at the highest levels of global health."

The daylong summit was held in partnership with the annual conference of the Consortium of Universities for Global Health (CUGH 2023) and the Global Innovation Forum organized by the Association of Academic Health Centers International (AAHC/I).

This year's theme, "Bridging the Science to Policy Gap for Global Health: Opportunities for Academia," explores the problem of translating research into effective interventions, interventions to implementation and local implementation to better health outcomes. The agenda included a range of topics such as technology for global health, gender and power, racism in global health, and sustainable giving. "Our topics are themes that we want people to discuss, irrespective of the diseases you work in," said Dr. Hyder.

Speakers also explored how politicization impedes public health and how to depoliticize health interventions in an increasingly partisan world. The increasing politicization of public health is an issue of concern, but it may be even more disturbing to experts in the field, Hyder said. During the COVID-19 pandemic, for instance, partisan values were assigned to interventions like masking and vaccines, making participation fraught for many and lessening the overall efficacy of these measures.

Likewise within the area of " climate change and the environment, where—for health reasons, for economic reasons, for development reasons—there is an evidence-based movement to work together to improve what we call 'planetary health," Hyder said. "And yet we find that the discourse [introduces] suspicions, doubts, controversies and so on."

It may be tempting to blame one side or the other of the political divide for these public health obstacles. But Hyder suggests that it's more important to examine the structural inequities and cultural forces at the root of politicization and how these forces play into disparate health outcomes: a major part of what the summit hopes to achieve.



Lesson 1: "Expect the unexpected when you're dealing with pandemics, because every pandemic is different."

-Dr. Anthony Fauci

Anthony Fauci Presents Global Lessons From the COVID Pandemic

What did COVID-19 teach us? The nation's top infectious disease expert, Dr. Anthony Fauci, imparted 10 invaluable lessons in pandemic preparedness and response in the 14th Annual Southby Lecture in Comparative Health Policy as part of our 25th anniversary celebrations and National Public Health Week.

Fauci, a longtime friend of the university, served as director of the National Institute of Allergy and Infectious Diseases (NIAID) at the U.S. National Institutes of Health from 1984 to 2022. During his tenure he served as a key adviser to seven American presidents on global HIV/AIDS issues and on initiatives to bolster preparedness against emerging infectious disease threats. Richard Southby appeared briefly at the podium to introduce GW President Mark S. Wrighton, who praised Southby as a key founder of Milken Institute SPH, which has become, Wrighton said, "a premier research-intensive school that is making great contributions not only locally but nationally and internationally."

Addressing Fauci, Wrighton said, "We're grateful for all that you have done in the last several years. No person in a public position has done more for public understanding of the pandemic than you."

Dean Goldman introduced Fauci and praised him for his immeasurable impact as "the nation's leading public health voice" and a "true national treasure" who has guided Americans through dark times with humanity and empathy. "He has often found himself at the center of our nation's responses to threats of emerging infectious diseases."

Dr. Fauci's lecture began with a tribute to the rapid scientific response to COVID-19, highlighting the remarkable speed at which the genome sequence of COVID-19 was shared on a public database, a public health triumph. He particularly lauded the rapid development of vaccines, which took mere months compared to the years required for previous vaccines. The pandemic, he noted, marked the most severe respiratory illness outbreak since the 1918 influenza, resulting in over 1.1 million U.S. deaths. As of March 2023, more than 760 million cases have been reported globally, with almost 7 million deaths. That number is surely an undercount, Fauci said.

Turning to his first of ten, Fauci announced:

Lesson I: "Expect the unexpected when you're dealing with pandemics, because every pandemic is different."

Three elements are responsible for what Fauci calls the "moving target" of the outbreak, including a highly mutable virus that evades immunity, therapies and vaccines.

"Now, we're in a much better place than we were before," Fauci said, before adding, "We're not out of the woods yet," since new variants of the virus may arise. "We built the largest clinical trial network in the world to develop AIDS medicines," Fauci said. "When COVID hit, if we had to start from scratch with a clinical trial infrastructure, it would have taken much longer to formulate a response to the pandemic."

The second element, especially pertinent to COVID-19, is that roughly half of all infections are transmitted by asymptomatic people. Fauci posed the rhetorical question, "How do you do contact tracing of someone who doesn't have any symptoms?" This difficulty, he said, led to the advice to wear masks.

The third and last element contributing to COVID-19's challenges was that it spreads mainly by aerosol transmission. "Aerosols are particles that float in the air, and they come out when you breathe and when you talk," Fauci said.

Lesson 2: "Act early and rapidly with public health interventions and countermeasures when dealing with a virus with

> pandemic potential," he said.

Lesson 3: "Global information-sharing and collaborations are essential" for everything, including surveillance data, patient samples, genomic data, and so on, he said. "That is absolutely critical because any lack of transparency is going to slow down the process."

Lesson 4: Existing infrastructure for clinical trials should be utilized.

"We built the largest clinical trial network in the world to develop AIDS medicines," Fauci said. "When COVID hit, if we had to start from scratch with a clinical trial infrastructure, it would have taken much longer to formulate a response to the pandemic."

Lesson 5: Prior scientific advances enabled the rapid development of countermeasures.

It took only 11 months to develop a COVID vaccine, Fauci said, adding, "Imagine how many more people would have died if it had taken four or five years."

Lesson 6: Taking a prototype pathogen approach, Fauci said, "means you build on prior experience within a family of viruses. There are certain virus families that are much more likely to have pandemic potential."

Lesson 7: Increased attention to the human/animal interface is needed.

"Human health is connected to the health of animals in our shared environment," Fauci said, adding that about 75% of



viruses are zoonotic, meaning they have emerged from our animal cousins as a result of "unbalanced interactions with nature," such as human encroachment on rainforest habitat or bringing infected bats into a wet market. Reducing the risk of pathogen spillover is an important goal.

Lesson 8: "Longstanding systemic health and social inequities drive pandemic disparities," he said. Health has social determinants, with African Americans and Hispanics having a higher incidence of infectious disease. Some of the reasons for this have to do with living and working arrangements in those communities, he noted.

Lesson 9: Misinformation is the enemy of pandemic control. Anti-vaccine lies have spread widely in relation to the COVID pandemic.

Lesson 10: Fauci quoted his boyhood hero, baseball great Yogi Berra: "It ain't over till it's over." It's impossible to predict the future of the COVID virus, Fauci said, but it is extremely unlikely that scientists will be able to eliminate it.

"This is a very, very diverse virus," Fauci said. "Genotypically and phenotypically, we've had five variants that have caused spikes around the world. And we lack a wide acceptance of vaccines." A more reasonable goal, he said, is to control the virus, keeping infections at the lowest level possible.

"Emerging infections, without a doubt, are a perpetual challenge," he said. "And the only way you meet a perpetual challenge is by being perpetually prepared. That's the lesson of COVID-19."

Q & A brought several questions from the audience. One interlocutor noted that most public health workers seemed exhausted at the height of the COVID pandemic and wondered how Fauci always seemed energized. "I focus like a laser beam on what my mission is and what my goal is and what my job is," Fauci said. His wife encouraged him to pace himself, he added, making sure he got enough sleep.



"Emerging infections, without a doubt, are a perpetual challenge," he said. "And the only way you meet a perpetual challenge is by being perpetually prepared. That's the lesson of COVID-19."

Another asked how to counter the lack of trust in science. "Better science education is part of the cure," Fauci said, "and scientists and public health professionals need to communicate as loudly as those spreading misinformation and disinformation. One thing they could explain better is that they work with moving targets. A health official could make a pronouncement this month and need to make one that is seemingly contradictory next month in response to changing circumstances."

Noting that scientists and health professionals have been intimidated by people under the spell of misinformation, Fauci underscored the need for giving out correct information. "You can't back down," he said. "If you back down, they've won." Asked which of his professional achievements he's proudest of, he singled out his work on PEPFAR, the United States President's Emergency Plan for AIDS Relief. "I would say there are people in this room with autoimmune diseases and HIV who are alive today because of the work you did," Goldman said, presenting him with a Milken Institute SPH baseball bat inscribed with multiple signatures of his friends and community.

The lecture culminated in a standing ovation for Fauci's contributions and insights.



Scan to watch Dr. Anthony Fauci's speech.

Students Win the Grand Prize in the DC Public Health Case Challenge

Congratulations to Milken Institute SPH students Laura Santacrose, Prabha Raghavan, Tre'Sean Hutchison, Kelly Sheehi, Kayla Authelet, and Elizabeth Baran and their coaches Gene Migliaccio, Professor & Associate Dean for Applied Public Health, and Jennifer Skillicorn, Director, Office of Applied Public Health and Associate Director of Doctor of Public Health Program, for winning the 2022 Grand Prize in the ninth annual DC Public Health Case Challenge!

The challenge promotes interdisciplinary, problem-based learning around a public health issue of importance to the Washington, DC, community. This year's case topic was "Protective Community Environments and Their Contribution to

The challenge promotes interdisciplinary, problem-based learning around a public health issue of importance to the Washington, D.C., community. This year's case topic was "Protective Community Environments and Their Contribution to Intimate Partner Violence Prevention: The Role of Youth." Intimate Partner Violence Prevention: The Role of Youth."

According to the Centers for Disease Control and Prevention (CDC), 16 million women and 11 million men who reported experiencing sexual violence, physical violence, or stalking by an intimate partner in their lifetime said that they first experienced these forms of violence before the age of 18, so adolescence is an important time to intervene. But young people can also be change agents in their communities, including in violence prevention.

The case focused on describing the problem of intimate partner violence and highlighting the evidence of effective interventions to prevent and address this issue, with special attention to broad-based, preventive population-level strategies, and examples of youth engagement and leadership.

The teams from DC-area universities each with up to six members from at least three disciplines — were given two weeks to develop a solution to this complex problem with a hypothetical \$1 million budget to be used during a five-year span. The teams presented their solutions to a panel of expert judges, and they were evaluated on the interdisciplinary nature of their response, feasibility of implementation, creativity, and practicality.

The GW team developed a solution called VIP, Voices to Interrupt and Prevent Violence. The students outlined three strategies: to engage youth early (through a middle school youth-led DC Avengers program), to limit exposure, and to change policies to support survivors, e.g., through stable housing. The long-term goal for the hypothetical project was to halve IPV in middle and high school students from 10 percent to 5 percent by 2028.



Milken Institute School of Public Health Holds Sixth Annual 950 Awards Ceremony

On September 30, 2022, the Milken Institute School of Public Health celebrated the sixth annual 950 Awards Ceremony and awarded five alumni in honor of their contributions to the school. Named after the address of the building and established in 2017, this ceremony recognizes our remarkable alumni community, which includes nearly 14,000 individuals spread across all 50 states, the District of Columbia, Puerto Rico, Guam, American Samoa, the U.S. Virgin Islands and 48 other countries.

Dean Lynn R. Goldman presented the awards to five outstanding alumni for their service to the school, their professional achievements and the impact they have made in the field of public health.

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Ayman El-Mohandes, MPH'91

Ayman El-Mohandes is the Dean of the City University of New York Graduate School of Public Health and Health Policy. He is a neonatologist and perinatal epidemiologist with a longstanding reputation as a researcher, educator and academic administrator with a commitment to public service, community engagement and social equity. He has served as a Co-Lead of the NYC Pandemic Response Institute, Chair of the Board of Directors of the Association of Schools and Programs in Public Health, a member of the Board of Directors of Public Health Solutions and Research America, part of the New York City Department of Health and Mental Hygiene's Advisory Council, an elected member of the American Pediatric Society, and a Fellow of the American Academy of Pediatrics. El-Mohandes was one of the founding faculty of the Milken Institute School of Public Health and served as Associate Dean of Research and Chair of Prevention and Community Health from 1997 to 2009.

Regina Davis Moss, MPH'oo

Regina Davis Moss is the Associate Executive Director of Public Health Policy and Practice for the American Public Health Association, where she oversees a broad portfolio of programs that address social determinants of health. She has nearly 20 years of experience managing national health promotion initiatives centered around women's health, health equity and public health system capacity building. Davis Moss has previously held senior roles at the National Institutes of Health, and the Kaiser Family Foundation, where she launched the Kaiser Health News service. She has fought to empower women, adolescents and young girls to make health decisions regarding the challenges they face in today's world.

Rex Holloway, MHA'87

Rex Holloway is a partner and Senior Vice President with Hammes Healthcare, where he leads the company's Advisory Services practice. For 30 years, he has provided strategic consulting for leading health care systems nationwide. Additionally, he was a Development Executive at Health Inventures, a leading ASC management company where he led ASC feasibility and syndication efforts. In March, Holloway was given the 2022 Alumni Service Award in recognition of the countless hours he has spent volunteering with and mentoring students of the MHA program.

Joelle Simpson, MD'05 MPH'05

Joelle Simpson is the Chief of Emergency Medicine and Medical Director for Emergency Preparedness at Children's National Hospital in Washington, DC, where she provides strategic leadership for disaster preparedness, response and community outreach. She is also an Associate Professor of Pediatrics and Emergency Medicine at the GW School of Medicine and Health Sciences. Simpson serves as a member of the National Biodefense Science Board, providing expert advice and guidance to the Assistant Secretary for Preparedness and Response on scientific, technical and other matters related to public health emergency response. Additionally, she is an appointed executive committee member and Chair of the subcommittee on education for the American Academy of Pediatrics Council on Children and Disasters. In June 2022, she was awarded a \$29 million grant to be distributed over four years from the Health Resources and Services Administration to build a Regional Pediatric Pandemic Network. The purpose of this network is to coordinate among children's hospitals across the nation in preparing for and responding to global health threats, including the dissemination of research-informed pediatric care for future pandemics.

Nsedu Obot. Witherspoon, MPH'oo Nsedu Obot. Witherspoon is the Executive Director of the Children's Environmental Health Network (CEHN), a national multidisciplinary organization whose mission is to protect developing children from environmental health hazards and promote healthier environments. For the past 23 years, she has been a passionate advocate for the protection of children, conducting presentations and lectures around the country. She has served on the External Science Board for the Environmental Influences on Child Health Outcomes with the NIH. She is a Co-Leader of the Health/Science Initiative of the Cancer Free Economy Network and Co-Chair of the National Environmental Health Partnership Council. She is also the Board Chair of the Pesticide Action Network of North America, a Board Member of the Environmental Integrity Project Healthy Building Network as well as the Jennifer Altman Foundation, and was appointed by the Governor of Maryland to serve on the Maryland Children's Environmental Health Advisory Council. Witherspoon is the past recipient of the William R. Reilly Award in Environmental Leadership from the Center for Environmental Policy at American University and the Snowy Egret Award from the Eastern Queens Alliance. In honor of her commitment to children's health, CEHN established the Nsedu Obot Witherspoon Youth Leadership Award.



DEVELOPMENT





Milken Institute SPH Lecturer Supports Graduate Students Through Bequest

With a heart brimming with hope for the future, Milken Institute SPH Lecturer Carol Kelly has made an inspiring bequest to establish the Carol A. Kelly Endowed Scholarship in Public Health Promotion at the school. This scholarship stands as a testament to Carol's commitment to supporting aspiring graduate students dedicated to Health Policy. It is a needand merit-based scholarship, primarily focusing on financial need while also requiring a minimum GPA of 3.5, for graduate students enrolled in the Health Policy program. Furthermore, recipients of this scholarship must be actively engaged in internships, employment or practicums with governmental entities, be they at the federal, state or local level.

She expressed her vision to Dean Lynn Goldman: "My goal was to ensure that the scholarship will go to someone studying health policy who will enter public service after graduation. Resources should never be the reason we cannot serve the greater good, and I hope my gift will ensure that future generations of health practitioners will have the same opportunities from which I have benefitted," said Kelly.

In her role as a lecturer within the health policy program, Kelly not only imparts knowledge but also leads by example. She has also founded Kelly Advocacy Outcomes, an organization that collaborates with clients on regulatory and legislative matters related to health care. On a voluntary basis, she serves as the president of Georgetown Village, an organization dedicated to providing essential support services for senior citizens living independently in Georgetown and its neighboring areas. This scholarship stands as a testament to Carol's commitment to supporting aspiring graduate students dedicated to Health Policy.

Kelly hopes that publicly sharing her planned gift will inspire others to consider the impact of their planned giving and its positive ripple effect on future generations. Her dedication to both education and community service sets an admirable standard for all to follow.

From Love to Legacy: The Gill-Lebovic Center for Community Health in the Caribbean and Latin America

The heartfelt love story of Holly Gill and James Lebovic, intertwined with their extensive journeys across the Caribbean and Latin America, where they provided veterinary care to underserved communities, took center stage in GWSPH's most transformative gift in recent years.

As avid travelers, Professor Lebovic and Dr. Gill embarked on explorations of numerous Caribbean islands and various countries in Central and South America during their three-plus decades of marriage. With each adventure, their affection for the region and its people deepened, as did their commitment to addressing the critical unmet needs they encountered. They proactively initiated direct aid projects in various communities that have flourished and expanded over the years. Their remarkable donation will transform and institutionalize their mission by establishing the Gill-Lebovic Center for Community Health in the Caribbean and Latin America at the Milken Institute School of Public Health. The Center's goal is to enhance health outcomes, train students and health care professionals, and create sustainable models for healthier communities in the region. Their contribution to the launch of the Center is the most significant among GW's faculty to date.

"We could think of no better place to build on this work and no better time to do it," said Lebovic. "The School of Public Health, under Dean Goldman's leadership, was already dedicated to collaborating with communities in the region, so we are simply accelerating their impact."



Celebrating the Impact of Donor Support in 2022–23

Members of the GWSPH community from across the globe joined forces to provide essential support to the Milken Institute School of Public Health during the 2022-23 fiscal year. Their contributions play a pivotal role in shaping the future of the school and its students.

Regardless of its size, every donation plays a significant part in enabling the programs, initiatives, experiences, and scholarships that enrich the education of GWSPH's students. These gifts not only unlock educational opportunities but also prepare students to make meaningful contributions to the field of public health. Here are some key highlights from GWSPH's exceptional year of philanthropic support.

IMMEDIATE AND FAR-REACHING IMPACT

Through their generous investments in the school and its talented students, donors left an immediate and lasting impact on campus. Their contributions also caused a ripple effect that extended far beyond the school's walls.

The 2023 I Heart GW Public Health Campaign saw the second-highest donor count in the campaign's eight-year history, raising \$9,662 in scholarship funds from 119 donors in one week. Alumni, students, faculty, and staff who say "I Heart GW Public Health" through their philanthropy, pledging support to make real world experiences that make the student experience so special here at GWSPH. This support ensures that deserving students have access to a GWSPH education and paves the way for the next generation of public health leaders to succeed across diverse fields.

Thanks to the generosity of alumni, parents and friends of the school, GWSPH embarked on innovative endeavors to equip students with skills for the future. For instance, donor contributions also played a crucial role in supporting GWSPH's Capital Connection Fund, which provides financial assistance for students to be able to access practicums, internships, conferences and other professional development opportunities.

BY THE NUMBERS

GWSPH witnessed a strong turnout from loyal, long-term donors, with more than 500 GWSPH community members and school friends giving in honor of 25 years of advancing public health. Additionally, the percentage of total GWSPH community members and friends who contributed financially increased over the past year.

In an extraordinary display of solidarity, nearly \$56,190 of these gifts were received on a single day in April. Approximately 133 members of the GWSPH community, including alumni, faculty, staff, students, and friends, came together on GWSPH's annual Day of Giving (April 4-5, 2023) to support public health education and raise 115% of the goal amount.

GIVING THROUGH GWSPH

The Milken Institute School of Public Health has championed a personalized approach to philanthropy that allows donors to give to and through the school, aligning their gifts with their personal interests, passions and values. This approach has facilitated support for a wide range of areas, from public policy to environmental health education, nutrition and exercise to community health in the Caribbean and Latin America.

"We extend our heartfelt thanks to the alumni, parents, faculty, students, staff and friends of the Milken Institute School of Public Health who have made a tangible difference through their generosity," said Jackie Wood, Associate Vice President and Chief Development Officer for GWSPH. "Your support has made GWSPH stronger than ever, and we remain committed to nurturing the public health leaders and innovative problem solvers of tomorrow, who will go on to make a profound impact on the world of public health."



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Financial Report

FISCAL YEAR 2023

REVENUE (m)

Research – excl BSC	\$ 46.0	26%	
Research – BSC	\$ 25.7	15%	
Research – Indirect	\$ 13.5	8%	
Graduate Tuition & Fees	\$ 68.7	39%	
Undergraduate Tuition & Fees	\$ 11.8	7%	
Gifts & Pledges	\$ 1.3	1%	
Other Revenue	\$ 1.4	1%	
Endowments	\$ 6.3	4%	
TOTAL	\$ 174.7		



EXPENDITURES (m)

Compensation	\$ 44.7	27%	
Compensation – Research	\$ 28.2	17%	
Other Expenses – Research	\$ 40.4	24%	
Operations	\$ 24.5	15%	
Occupancy	\$ 5.7	3%	
Student Support	\$ 12.6	8%	
Student Support – Research	\$ 1.8	1%	
Allocations – Net	\$ 8.9	5%	
TOTAL	\$ 166.8		



RESEARCH REVENUE TREND



REVENUE TREND



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