

The Director's Column

Dr. Nils Hennig, Program Director



Greetings and welcome to another issue of The Scoop. The past two years have been like no other. But I have been so delighted by the way our public health community of students, faculty, community partners and administrative staff pulled together to support one another, and confront the pandemic with knowledge, evidence and our collective skills in application. I want to thank you for being part of this wonderful community and sharing your time, curiosity and knowledge

generously. I hope we will continue to work collaboratively to ensure that the lessons of SARS-CoV-2 are not forgotten and that public health in this city, country and world comes back stronger.

We are living through an infectious disease pandemic, a racism pandemic and a gun violence pandemic, and we should strive to be part of the solutions. Positive change requires energy, ideas, creativity, advocacy and resilience.

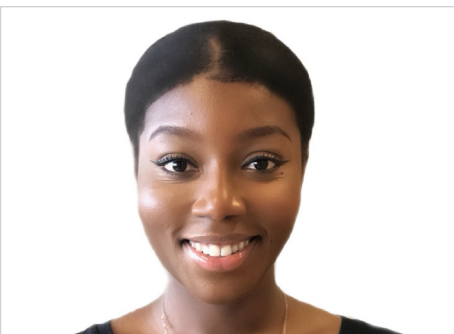
In the past few months, we've witnessed the dedication and work required to navigate the US justice system to find Travis McMichael, Greg McMichael and William 'Roddie' Bryan guilty of murder in the shooting death of Ahmaud Arbery in Georgia in 2020. The first district attorney recused herself because one of the perpetrators worked in her office, the second blamed Mr. Arbery for his own death, accusing him of an "aggressive nature", and the third waited ages to arrest them. But ultimately, advocates for racial justice and the ongoing Black Lives Matter movement pushed the state to bring in an experienced out-of-town prosecutor to try the perpetrators after months of delays and potential misconduct in the handling of the case.

The Kyle Rittenhouse case in Wisconsin demonstrates how far we still have to go on common sense firearm safety. The verdict suggests that it is okay to take a weapon designed to cause mass injury and deaths to a public event; that if someone approaches you and you perceive that person to be a threat, you can shoot them with impunity. What does it say about a society that allows a

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Connecting with the Navrongo Health Research Centre Virtually – A Global Health Summer Experience

By Anita Ofosu-Appiah, MPH Student



This summer I was able to work on a project titled *Adapting the Community-Based Health Planning and Services (CHPS) Program to Screen and Treat Depression and Cardiovascular Disease*. It was a remote Global Health Summer opportunity with

research being conducted in Navrongo, Ghana. I was passionate about being a part of this research because I was born in Ghana and I thought it would be an amazing opportunity to contribute to the research being done to improve health outcomes in my home country. The Navrongo Health Research Centre (NHRC) is a Ghanaian governmental research institution designed to conduct research for programs that will promote health and better health outcomes for low-income people in rural Navrongo and across Ghana. David Heller, MD, MPH, was my preceptor and he is the Mount Sinai Arnold Institute for Global Health liaison in partnership with NHRC. Raymond Aborigo, PhD MPH was my affiliate mentor and

collaborator with the research center in Ghana. Their work with the NHRC centers around adapting the Community Based Health Planning and Services (CHPS) Program to screen and treat depression and cardiovascular disease for people in the Navrongo region.

The current project adapts a nurse-led primary care program in Ghana - called the Community-Based Health Planning and Services (CHPS) initiative - for the screening and treatment of cardiovascular diseases. CHPS deploys nurses to rural areas to provide both door-to-door screening and clinic-based care, focusing

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Connecting with the Navrongo Health Research Centre Virtually *(continued from page 1)*

on antenatal care, childhood vaccinations, and contraception in addition to treatment of acute infectious diseases, such as malaria and diarrhea. Although the CHPS model has decreased mortality in children under 5 by more than 50% in select regions, it has never focused on non-infectious adult diseases, such as hypertension. The goal of the ongoing project is to produce a blueprint for an intervention to treat hypertension and depression with medication rubrics and adapt a behavior counseling program to train health volunteers to coach persons with hypertension or depression to engage in lifestyle changes (such as exercise, talk therapy, and alcohol cessation) to both improve mood and lower blood pressure.

My responsibilities on the project involved qualitative analyses and coding of data to systematically identify stakeholder ideas and beliefs on how to develop and adapt the interventions in partnership with the NHRC. Completing my Applied Practice Experience with this site in particular was rewarding because it was geared toward a population in need from my home country. In the beginning, I was not very familiar with Navrongo, as it is a region in the north, further from where I was born in the capital city. It opened my eyes to the specific challenges they face in delivering and receiving healthcare services and resources. I am happy that the work I did this summer will assist in creating interventions that will provide the needed support for the people.



The Global Health Summer Experience is an annual, competitive research and practice opportunity for Mount Sinai public health and medical students. Selected trainees gain experience tackling some of the most challenging public health issues across the globe with the guidance of a Mount Sinai faculty advisor and an on-site global health mentor. Due to COVID-19 restrictions, all 2021 sites were remote or local to NYC.

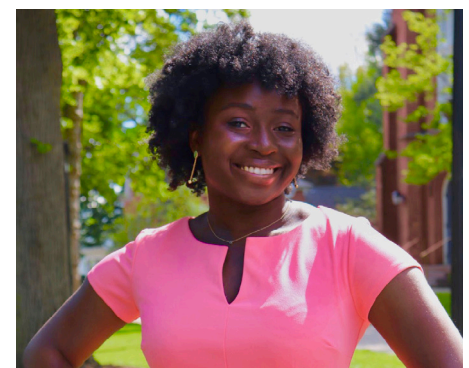
Reflection on “How Public Health Took Part in Its Own Downfall”

By Funmi Oguns, MPH Student

In the age of a pandemic, the cultural dynamic of how public health defines itself is constantly changing. According to the October 23, 2021 Atlantic article “How Public Health Took Part in Its Own Downfall” by Ed Yong, Pulitzer-Prize-winning science journalist, there now exists a dichotomy of views in a field that is supposedly holistic. In the beginning of the 20th century, the field of public health emerged from the sciences as a way to socially reform health and health care. It became apparent that a diagnosis doesn't always start in the hospital room, but instead in people's home, their workplace, and their neighborhood. There was a recognition that in the same way that advances in medicine are imperative to decreasing people's susceptibility to disease, so were social problems. The main basis of public health was defined by the yearn to analyze health in a holistic view and

decipher environmental factors that affect the individual's health. Yong proclaims that half a century later, especially in the midst of a global pandemic, this holistic view seems ambitious and overeager. We are now seeing a shift in the field towards a more laboratory based approach and scientific outlook. This inherent shift has also created a power structure within the public health system and necessitates having a degree in order to be able to make a difference. Although the author of this article has some major concerns, I believe all hope is not lost. If there is one thing that the pandemic has proved, it's that now, more than ever, the ever growing importance of viewing public health holistically due to vaccine hesitancy, lack of insurance, and overcrowded housing and prisons, has been highlighted. As emerging public health professionals we are indebted with the responsibility of

balancing imperative scientific research with social justice. Great attention should be paid to maintaining alliances with social sectors to encompass an integrated endeavor that is inclusive of the broader public.



Funmi Oguns, MPH Student, is also Student Editor of this issue of The Scoop Graduate Program in Public Health Newsletter

To Dual, or Not to Dual

By Vanessa Rock, MSW, MPH Student



Like so many undergraduates, I started my professional career hoping to take a traditional journey into the helping professions. As I entered the workforce and progressed through my education, I immediately realized I had to pivot. The straight path in my case was not conducive to life happening, thus, I learned to maneuver through many of life's curve balls. Over the past few years, when I meet, or speak to my colleagues and peers, I've realized that I am not on this journey alone and there are so many of us on the road less travelled.

My interests are so vast, that I was initially not sure how to make them all work. From faith, health care, public health, social justice, and counseling on the micro and macro level, there was no set position or journey that was all-encompassing. Working in

human service organizations serving the mentally ill, the homeless, or both, I often felt there was a piece to the puzzle missing. The work I was doing in hospitals and in not-for-profits was significant, however, many of the challenges required more upstream solutions before they ever got to my desk. I realized the missing piece was public health. Coupling my passion for health and social justice with community-based health promotion and prevention seemed like a no-brainer.

The Icahn School of Medicine at Mount Sinai provides a unique opportunity for students with varying interests to partake in one of their many dual degree programs. Students can matriculate through the MD/PhD, MD/MPH, DPM/MPH or the MSW/MPH. I completed my MSW with Fordham University's Graduate School of Social Service this past spring, and now have the opportunity to consecutively work on this portion of my passion through the lens of a social worker.

Scheduling

One of the next things you will need to determine is schedule. With work, school and a personal life, I knew the lock and step

needed a rhythm I could hold. I decided to complete one degree first as I am already working full-time. But that will not be everyone's story. One has to determine what scenario works best for your actual life circumstances. Do you want to be full time, part-time or in some years, both? Do you want to earn your degrees concurrently or one after another?

You're Doing the Best You Can

The final point is to recognize that earning two master's or master's-doctoral level degrees simultaneously can be challenging. I would be doing a huge disservice to potential dual students and current students to not be frank. It's hard. Some days I am on the right track having assignments and readings done with time to spare. Other days are a rigmarole of blurred assignment dates, looking disheveled on zoom, and skimming through articles. It is a huge undertaking. But, no matter which day you are in, rest assured, you are doing the best you can, and it's enough.

Now that you have some of the basics, you can decide to answer the question for yourself... to dual, or not to dual?

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teenager to wield military-style assault rifles? In 32 states, there are no background checks for private gun sales. In most states, there are strict limitations on the numbers of rounds that hunters can carry. For deer, it's usually five. For ducks, it's usually three. But in most states, there are no round limits on people who carry military-style weapons. We do a better job protecting hunted animals than people! As a community, we must do better protecting people from gun violence.

As we face daily public health threats, let us also reflect on public health successes. Resilience and creativity has paid off with the recent historic announcement from the World Health Organization (WHO) recommending the world's first malaria vaccine to reduce illness and death across regions where children are at risk. Having worked in Africa for many years and having treated thousands of children with malaria, I have witnessed this devastating illness first hand. According to the WHO latest numbers, in 2019 there were an estimated 229 million cases of malaria worldwide. The estimated number of malaria deaths stood at 409,000. Children aged under

5 years are the most vulnerable group affected by malaria; they accounted for 67% (274 000) of all malaria deaths worldwide. The WHO African Region carries a disproportionately high share of the global malaria burden. In 2019, the region was home to 94% of malaria cases and deaths. As part of a package of interventions, tailored to local malaria conditions, the vaccine will save tens of thousands of young lives every year. I applaud the governments, the WHO, its partners and the funders that have supported the pilots that have brought us to this point. I urge the global health community to again be bold and invest in the malaria vaccine on a robust scale, so that we may reap the fruits of this breakthrough for children's health.

I wish you strength and perseverance during the ongoing pandemic and for your important public health undertakings. As a community, we can advocate for positive change and contribute meaningfully to achieve health equity and better health for all. Take care of yourselves as you continue this relevant work!

Interview with Shanna H. Swan, PhD

Author of “Count Down: How Our Modern World Is Threatening Sperm Counts, Altering Male and Female Reproductive Development, and Imperiling the Future of the Human Race”

By Arthi Vickneswaramoorthy, MPH Student



Dr. Shanna Swan. Photo by Alex Dupeux.

There has been a decline in semen quality over the past 50 years, presenting itself as a public health issue. Dr. Shanna Swan is a professor at Icahn School of Medicine at Mount Sinai, Department of Environmental Medicine and Public Health and a reproductive and environmental epidemiologist. Over the past twenty years, Dr. Swan and her team have been looking at the causes of impaired semen quality. They have studied semen counts, morphology, and motility in order to gain a more robust understanding of the ways in which semen quality has been diminished. In 2017, they published a meta-analysis that analyzed global sperm decline from 185 studies. Findings indicated that sperm count had declined significantly at a rate of over 50% with 1% per year. This reduction in sperm count stemmed from exposure to chemicals in our daily lives and lifestyle factors, such as obesity, binge drinking, smoking, and stress. These chemicals include endocrine-disrupting chemicals (EDCs) which interfere with our

body's endocrine system and hormones, such as the production and distribution of testosterone, estrogen, and thyroid. These chemicals are found everywhere and commonly found in plastics, cosmetics, and food. These chemicals can do damage to various bodily systems. A small amount of these chemicals is enough to interfere with the development of the reproductive system and genitals during the first trimester of pregnancy. Phthalate exposure can reduce testosterone levels preventing proper development or masculinization of a male child. Following the publication of the study, Dr. Swan went on to publish her findings in her book, “Count Down” in February 2021.

Q: Your book, “Count Down”, with Stacey Colino, was published earlier this year. How did it feel to publish your work and have your findings shared with the public?

A: It's really exciting to have it published and see the amount of attention that it's getting, which is surprising to me and even to the publisher. The book was out for less than two months, before going into a second printing and we have interest from four film producers. The attention doesn't seem to be waning, which is great news, because my goal was to bring more visibility to this issue and hopefully see actions to make a change as a result of the book.

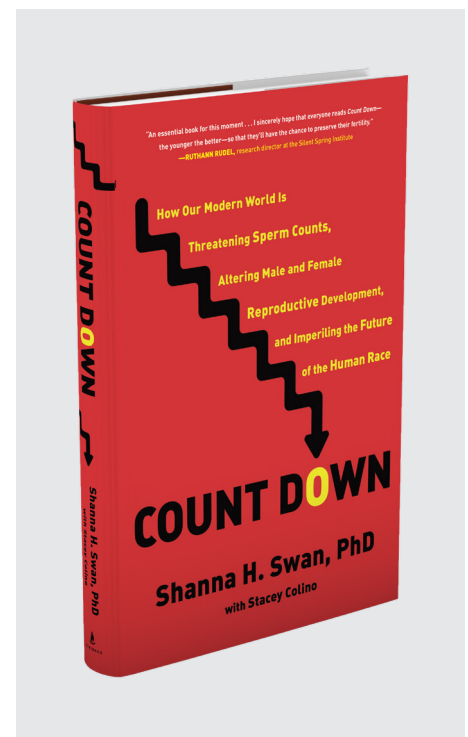
Q: What are some of the major obstacles you and your research team encountered while trying to conduct this research study?

A: The first hurdle is that NIH really should recognize the importance of reproductive health. There's no institute for reproductive health. Completing the meta-analysis itself was a challenge because none of us have done this before. It's a huge job. Another major hurdle was realizing the magnitude of

the work that had to be done and realizing that we needed help. There were a lot of studies that my colleagues and I could not review in a reasonable amount of time on our own, which meant that we had to bring more people on to assist us with this work.

Q: With the next step following this study, we need more research on the causes and implications of sperm count decline. What should be the plan of action in doing so?

A: The kind of research we need now is on where these chemicals are entering our products. In what part of the supply chain are they entering our food? In what part of the production process are they entering our products? Until we know that, we can't really get rid of this. Next, we need to develop safer alternatives. We need the chemicals to make safer plastics and that is a revamp of the chemical industry, which is obviously huge.



We have to make these in ways that don't depend on petroleum by-products, which is intimately tied to climate change. As the use of petroleum products went up, the impact on the climate went up. Unfortunately, we also got more plastic in our bodies. The issues of impaired semen quality, the increased use of chemicals that create petroleum by-products and the impact on climate change are all topics that are intertwined.

Q: Prior to your study published in 2017, there was much skepticism about the drop in sperm count, but fortunately, the public has received the findings from this study well, although there is much more work to do. Do you think we're a little too late?

A: I think we're definitely coming into this way too late, but not necessarily too late to make important changes. The public often takes a long time to respond to information about risk. Unfortunately, the way in which people consume health information and change their habits is very slow process, if at all.

Q: Are there any communities that are at an increased risk of health inequities and exposure to these chemicals?

A: Disadvantaged communities tend to be more highly exposed. Disadvantaged communities include those that suffer

from a combination of economic, health, and environmental burdens. These burdens include poverty, unemployment, air and water pollution, and subsequently higher incidences of diseases and health challenges. When you have the impact of unhealthy environmental exposures such as polluted air or water and then add endocrine disruptors to the equation, the effect may be greater in a disadvantaged community versus a community that overall has a better economic, environmental and health standings. Disadvantaged communities have fewer options for fresh food or the ability to buy expensive and less toxic personal care products. The stressful economic conditions of these disadvantaged communities mean that they don't have the luxury to search for better options or even have the time to research these things for themselves.

Q: What changes can we make to our daily lives to limit exposure to these chemicals?

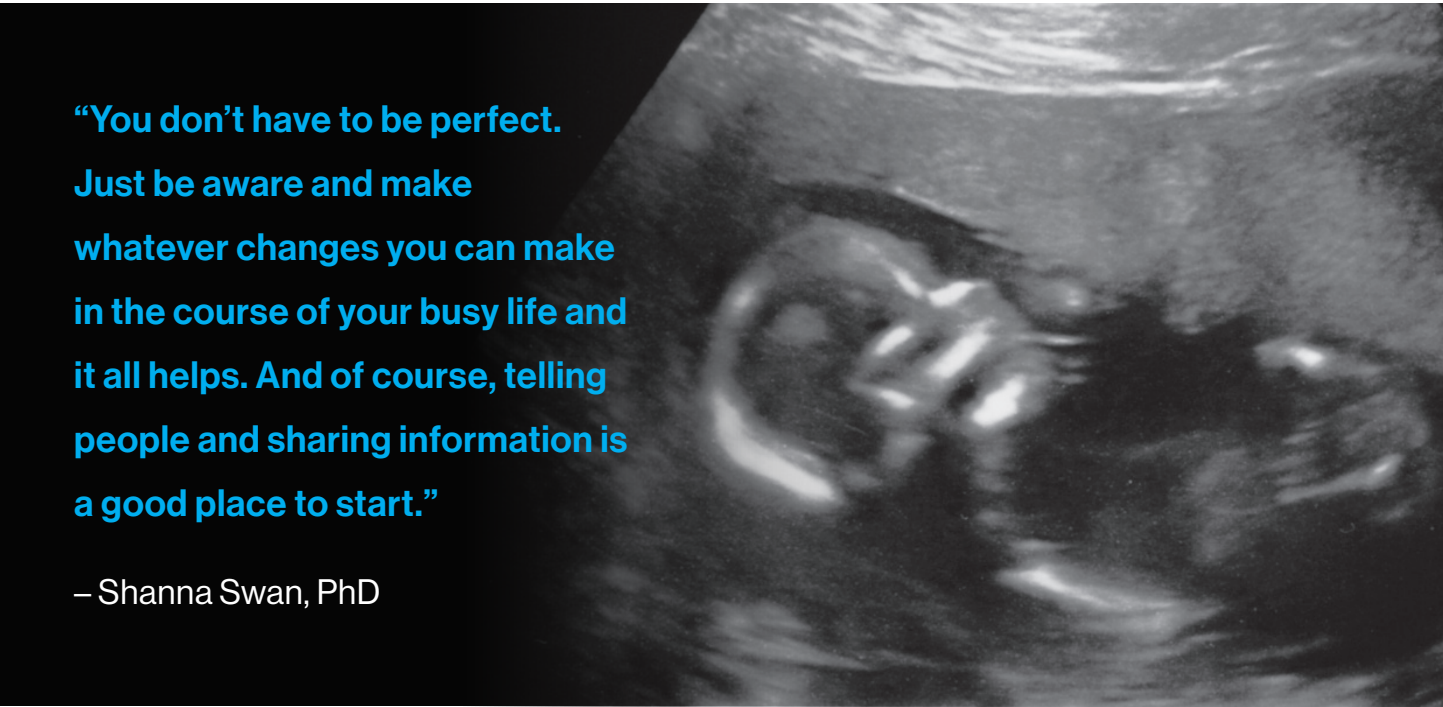
A: You don't have to be perfect. Just be aware and make whatever changes you can make in the course of your busy life and it all helps. And of course, telling people and sharing information is a good place to start. I want to stress that the most critical time for these exposures is in young people who are or might be getting pregnant because the greatest impact is in fetal development.

Q: Do you have any words of advice for our fellow graduate students in public health?

A: People should think about studying this and getting involved in this area. There is a big public need here. I hope that we can drive more interest and encourage students to become more interested in addressing the root causes of impaired semen quality and addressing what this means for our communities. I would like to see that.

Q: With this release of your book, I can't imagine how content you must feel. Are you working on any new projects that the Public Health field can look out for?

A: I'm starting to work on a "Count Down" film. I'm also working on, what I'm calling "The Count Down to Action Campaign" which is an educational campaign that will target healthcare providers, legislatures, and faith leaders. I think these three groups are really influential in reaching the general public. This campaign will inform them about how current legislation is inadequately protecting us and the changes that have to be made to better protect ourselves and our communities. In terms of research, I am starting to do point-of-entry research and the extent to which we can change or stop these chemicals that are introduced in our foods and everyday products.



“You don’t have to be perfect. Just be aware and make whatever changes you can make in the course of your busy life and it all helps. And of course, telling people and sharing information is a good place to start.”

– Shanna Swan, PhD

Public Health Professional Development Conference – Takeaways from the Keynote Lecture

By Justine Marcinek, MPH Student

On Friday, November 5, 2021, I had the pleasure of attending Mount Sinai's 2021 Public Health Professional Development Virtual Conference. The Graduate Program in Public Health hosts this annual conference to help equip current students and alumni with the tools necessary to successfully navigate their way from public health student to public health professional. This year's theme, "Building Connections in the Public Health Workforce," couldn't be more timely, especially for new students and recent alumni navigating this field during the pandemic. Keynote speaker Montrece McNeill Ransom, JD, MPH, ACC, delivered an engaging opening address, titled "Belonging: The Prescription for Connection in a Disconnected World." Attendees were then invited to partake in small group skill-building discussions. Here are four takeaways I learned from my experience.



Montrece McNeill Ransom, JD, MPH, ACC, Director of the National Coordinating Center for Public Health Training within the National Network of Public Health Institutes, delivering her keynote on Zoom

1. You have to create your own sense of belonging sometimes.

When you find yourself weighed down by self-doubt, getting to a place where you feel confident in the progress you're making towards your aspirations can feel insurmountable. You may not be alone in these isolating feelings; in fact, they could be stemming from the culture of the workplace itself. Ransom advises us to acknowledge our colleagues' personal sense of belonging by becoming a connector.

This includes making a conscious effort to include our peers, lift up their ideas, and empower others in shared spaces. That way, everyone can feel comfortable bringing their unique perspectives to the table, where their differences and lived experiences can be truly valued in workplace decision-making.

2. Think about what you can give, not just what you might get.

According to Ransom, the most meaningful connections are mutually beneficial ones. As we network, it's easy to get caught up in all the different ways we can get ahead. Meanwhile, stakeholders need to know that you are a worthwhile investment!

Therefore, take some time to define your professional goals, passions, values, and skills. That way, you are able to clearly articulate what makes you an asset to the team and how the connection you're interested in making can advance your career.

3. Make the most out of opportunities by preparing in advance.

Having a plan is the key to leveraging opportunities. Ransom recommends crafting an elevator pitch to promote yourself. To stand out on paper, tailor your resume to a specific job posting by incorporating keywords from the listing into results-focused bullet points. If you want to learn more about how to build these professional skills as a Mount Sinai student, contact Dunstanette Macauley-Dukuly, Manager for Career Services and Alumni Relations at dunstanette.macauley-dukuly@mssm.edu.

4. Effecting tangible change involves multidisciplinary connections.

Decisively addressing institutionalized racism requires systemic change. Public health practitioners should be prepared as purposeful antiracism advocates in order to advance health equity and inclusion and reduce disparities and bias in practice. Ransom suggests that inclusive leadership at the intersection of healthcare and law can create structural frameworks that constructively shape social determinants of population health, including equitable access to resources and legal protections.

This conference is just the beginning of many professional development events I'm looking forward to attending during my time at Mount Sinai. I hope you will join me at one in the future!

Alumni Experience

2021 American Public Health Association Annual Meeting

By Mellesia Jeetoo, MPH

I've always had a curiosity for infectious diseases, and the moment I walked into my first Epidemiology course at Mount Sinai, I knew I was right where I belonged. I was in awe of the passion that Dr. Stephanie Factor had when teaching the Introduction to Epidemiology course. I remember wanting to learn more from her and being just as passionate and curious. Dr. Factor later became my mentor for my Culminating Experience research project where I conducted an ecological study, to determine if social distancing during the SARS-CoV-2 pandemic was associated with the incidence of chlamydia in 2020 in the United States.



Mellesia Jeetoo, MPH (left)

Title Slide of Mellesia's APHA 2021 Presentation (right)

I had the opportunity to present my research at the APHA Annual Meeting in October 2021. Among the states that were included in the analysis, this study observed that there was a decrease in the incidence of chlamydia in 2020 compared to 2019. The incidence of chlamydia was also negatively associated with population location at groceries and pharmacies which may be possibly due to access to condoms which prevent transmission and/or pharmaceuticals which treat infection and therefore prevent transmission. There were also positive associations between incidence of chlamydia and places where people are likely to meet and/or have sex such as retail/recreation, transit stations, and homes. With this said, social distancing during the SARS-CoV-2 pandemic may have decreased the incidence of chlamydia and grocery/pharmacy locations may be important in preventing chlamydia infection.

I'm so very grateful for my mentor Dr. Factor and my colleague Lee Rodriguez, MPH, on their contribution, collaboration, and support on my research project. Lee Rodriguez who also pursued the Epidemiology track, presented his work on *Inclusiveness of LGBTQ persons in state-level laws and policies and appropriate use of HIV pre-exposure prophylaxis: An Ecological Study*. This study suggests that inclusivity of LGBTQ-related nondiscrimination laws/policies were associated with increased used of pre-exposure prophylaxis uptake.



Lee Rodriguez, MPH (left)

Title Slide of Lee's APHA 2021 Presentation (right)

In addition, it has been a privilege to be mentored by Dr. Factor. I admire her dedication and time in supporting me throughout my research project. In addition to being my mentor, a physician, and a professor, Dr. Factor dedicates her time to helping others around her and is committed to making a difference in public health. Her commitment and passion has truly inspired me to not only pursue my career in infectious disease epidemiology, but to also strive to make an impact in the field of public health in as many ways as I can. In aiming to do so, while in graduate school at Mount Sinai, I had the opportunity to be involved in many activities. I was Graduate Teaching Assistant for a few Epidemiology courses, where I had the opportunity to teach students concepts in epidemiology with the passion I already had for this field. I was also a part of the "My NYC Air" project as a member of the Mount Sinai Environmental Medicine Department. Here, I aimed to ensure that disadvantaged communities had the proper tools to identify environmental injustices to achieve environmental justice by holding trainings on community science and environmental justice with organizations such as North Brooklyn Neighbors. With this, it is my passion to continue to make an impact in infectious disease epidemiology and in public health!

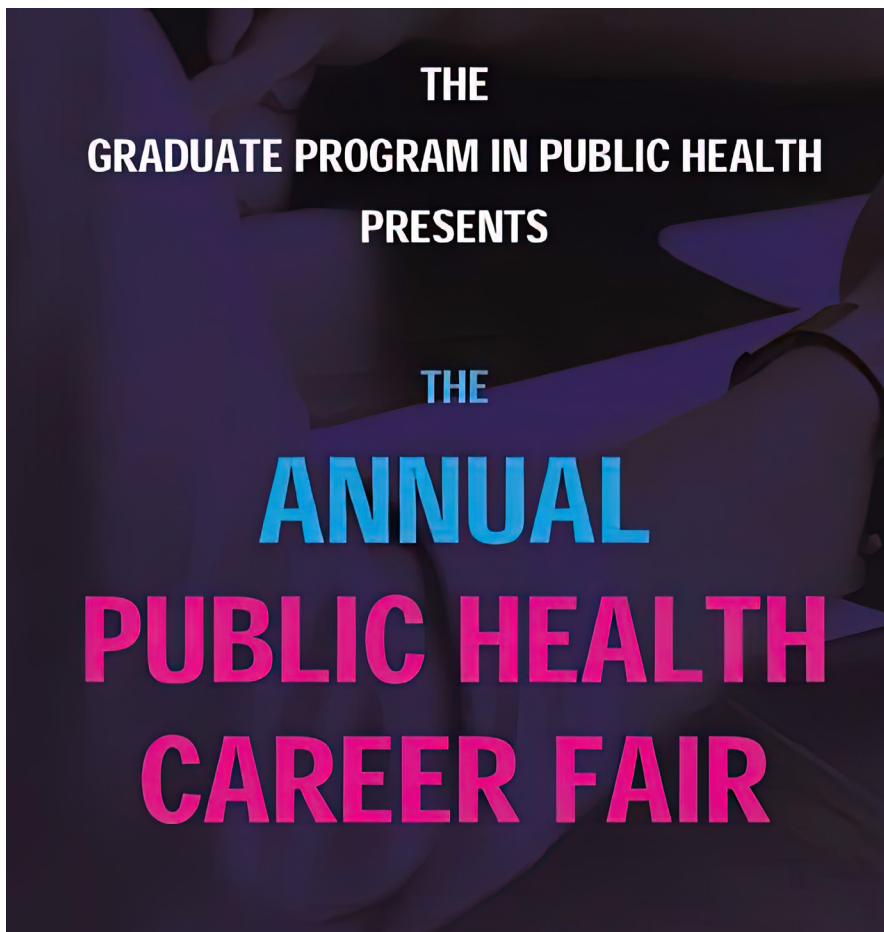
Each year many ISMMS students and alumni apply and are accepted to give poster presentations and oral presentations at APHA. Visit [apha.org](https://www.apha.org) to learn about the annual meeting and submit your abstract by April 2022!



APHA 2022
ANNUAL MEETING & EXPO
BOSTON | NOV. 6-9

SAVE THE DATE

for the Annual Public Health
Career Fair on **April 13, 2022!**



During this virtual event, public health students will have the opportunity to connect with employers from various organizations and learn how they can apply their graduate studies to change-making in the field. The fair will be hosted by the Graduate Program in Public Health at Icahn School of Medicine at Mount Sinai.

Please contact publichealth@mssm.edu for more information!

Public Health Research Day

Public Health Research Day will be **Thursday, May 26, 2022!** Events include the annual poster session featuring all graduating students, invited oral presentations, and networking opportunities. If deemed safe, some research day activities may take place in person.

ANNOUNCEMENTS

National Public Health Week is April 4-10, 2022. Join the NPHW Planning Committee to pitch ideas or lead our events! Please contact jennifer.valdivia-espino@mssm.edu for more information!

Interested in having your writing or photos published in The Scoop? Be a part of our next issue! Contact one of our editors to get involved.



The Scoop Fall 2021/Winter 2022

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