

University at Buffalo

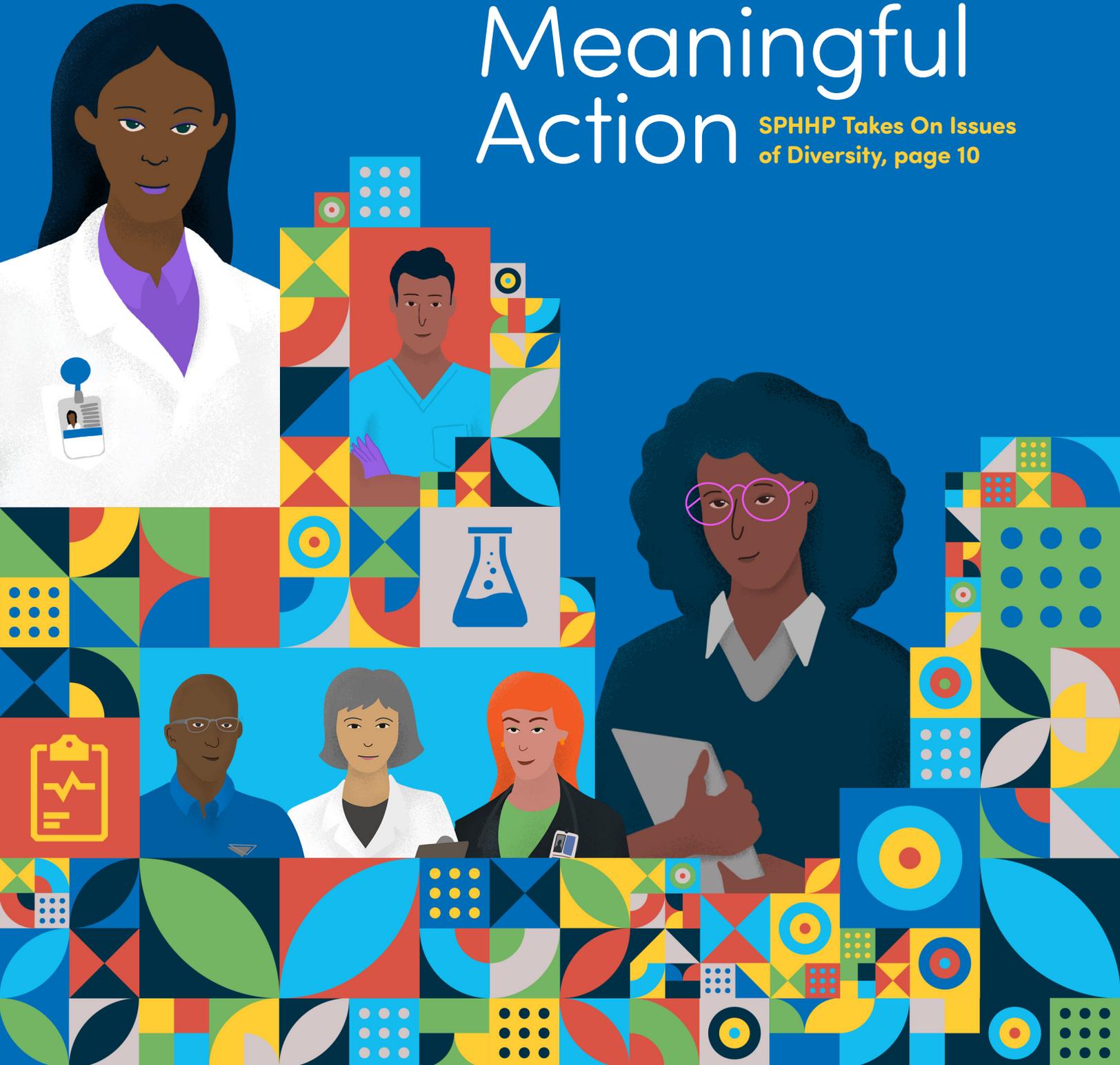
# Health Impact

From the University at Buffalo School of Public Health and Health Professions

Winter 2021

## Meaningful Action

SPHHP Takes On Issues of Diversity, page 10



## FROM THE DEAN

Welcome to 2021 and the first issue of Health Impact newsletter.

I mentioned in our last issue the dual public health crises we were facing at that time: the COVID-19 pandemic and racial discrimination and inequity. These are ongoing threats, but within our country and in our school, movement is palpable, and this new year seems to be bringing some much-needed recognition, and importantly, change.



We have the hopeful news that vaccines are being distributed and will hopefully soon give us relief from the spread of COVID-19. This cannot happen soon enough. The work of the public health and scientific community, some of it taking place at University at Buffalo, is propelling us forward as we deal with both the health-related and societal impacts of this disease. (Several updates on the work of our school's researchers into various aspects of COVID-19 appear on page 9).

Issues of discrimination, inequity and social justice are longstanding and surely will take much more time and sustained effort to mitigate. But, in our school and at UB as a whole, I see commitment—from administration, faculty, and students—to find ways to help move our university and out community forward.

At SPHHP, we are taking steps to combat discrimination and grow diversity on many fronts—in our people, our curriculum, the voices and viewpoints we put forward, and more. This month's cover article (pp. 10-14) details these activities, and, you will see that we have already seen a number of early, concrete results. This ongoing work is informed by the varied perspectives and experiences of the committed group of students, faculty and staff leading it.

I hope 2021 brings you sustained energy to devote to the challenges we face. We can work together to address these important challenges. I am proud of the work being done by so many in our school and beyond. Let us continue this work and be ambassadors for change.

Stay safe! Stay strong!

A handwritten signature in white ink, appearing to read 'Jean'.

**Jean Wactawski-Wende, PhD**

Dean, UB School of Public Health and Health Professions  
SUNY Distinguished Professor

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# \$8.1 Million Contract Extends Women's Health Initiative Work

**THE WOMEN'S HEALTH INITIATIVE (WHI),** the nationwide study following health outcomes in postmenopausal women that has yielded major discoveries on diseases affecting them, has received significant support for its groundbreaking work.

A new contract from the National Heart, Lung, and Blood Institute at the National Institutes of Health provides \$8.1 million in funding to extend the study and produce scholarly scientific output. With this extension through 2027, the WHI will have been continuously funded for 35 years.

UB is one of 16 original "vanguard clinical centers" selected to participate in the initiative and now serves as the WHI Northeast Regional Center, managing data collection and scientific coordination among nine affiliated institutions in the mid-Atlantic and Northeast regions. Jean Wactawski-Wende, dean of the School of Public Health and Health Professions, is the WHI Northeast Regional Center's principal investigator. Her co-investigators are Michael LaMonte, Amy Millen, Heather Ochs-Balcom and Hailey Banack, all faculty in the Department of Epidemiology and Environmental Health at UB.

According to Wactawski-Wende, WHI's main goal at inception was to explain the origins and prevention of major causes of diseases and death in postmenopausal women who were aged 50 to 79 when they enrolled in the study.

WHI's clinical trials were designed to determine whether menopausal hormone therapy, calcium plus vitamin D, and a low-fat diet could prevent chronic diseases in older women. The study initially focused on health outcomes like cardiovascular disease, cancer and osteoporotic fractures.

Over time WHI expanded to focus on many other health outcomes including dementia, stroke, diabetes, heart failure and frailty. Today, WHI aims to increase knowledge about factors such as sleep, physical activity and others that may be associated with a good quality of life and prevention of poor health outcomes. WHI is also looking at resilience in the women, who are now 75 to over 100 years of age.

"We have an ongoing study of COVID in over 45,000 of the WHI women," Wactawski-Wende added. "In Buffalo, we are also looking at the impacts of caregiving in our participants. In addition, we have an ongoing study of periodontal disease, the oral microbiome and health outcomes."

Approximately 70,000 women are currently participating in the study 25 years later. "A notable aspect of this study is that about 70,000 women who participated are still alive and continuing to provide input," Wactawski-Wende said.



## Public Health Programs Booming in Answer to Pandemic Needs

Perhaps unsurprisingly, given the crisis wrought by the COVID-19 pandemic, public health programs are booming. According to the Association of Schools and Programs of Public Health, the more than 100 schools and public health programs that use the single admissions application form (which students can send to multiple schools) saw a hefty **20% increase in applications** to MPH programs for the current academic year, to nearly 40,000.

SPHHP's own statistics, at right, corroborate that story with growth in enrollment in several of the school's programs. "The pandemic has shown the world the value of public health," said Jean Wactawski-Wende, dean of the School of Public Health and Health Professions. "The growth in our public health programs is clear evidence that young people are heeding the call to join this meaningful field."

### Public Health BS



### Master of Public Health



## Ohtake Joins IPE Experts Panel

**Patricia Ohtake**, assistant vice president for interprofessional education (IPE), will be one of seven nationally recognized IPE experts developing a measurement instrument to standardize assessment of institutional progress toward IPE program implementation using a framework developed by the Interprofessional Education Collaborative (IPEC). IPEC convened the expert panel as part of its project "Leveraging the IPEC Competency Framework to Transform Health Professions Education."

Ohtake, PT, PhD, FNAP, has led UB's IPE effort since 2017. She is also an associate professor in the Physical Therapy Program.

IPEC is made up of 21 national health-professions associations, and promotes and encourages efforts to advance interprofessional learning experiences. Its work helps educational programs prepare future health professionals to take part in the growing trend of team-based patient care, with the ultimate aim of better patient outcomes.

At UB, IPE helps students in public health, health professions, medicine, dentistry, nursing and other fields build team-based competencies like working together respectfully and growing their understanding of the roles each discipline plays in patient health.



# For Better Heart Health, Studies Say Step to It



If you're sitting down, the findings of two major new studies led by School of Public Health and Health Professions researchers are likely to get you moving.

Women who met the federal physical activity guideline of 30 minutes per day of moderate activity exclusively through walking had a significantly lower risk of developing hypertension, according to a paper published in the American Heart Association journal "Hypertension."

The study also reports that women who did not achieve recommended levels of walking but who walked at 2 mph (a 30-minute mile) or faster still had a reduced risk of hypertension.

Another study of more than 80,000 postmenopausal women aged 50 to 79, published in "Circulation: Heart Failure," reports that more time spent in sedentary behavior while awake, such as sitting or lying on the couch, is associated with higher risk of heart failure hospitalization.

**"Sit less, walk more for heart health."**

In fact, women who spent more than 9.5 hours per day sitting or lying down had a 42% higher risk of developing heart failure during the nine years after first assessing sedentary time through the Women's Health Initiative Observational Study. This finding was evident even after accounting for physical activity levels and heart failure risk factors such as hypertension, diabetes, obesity and heart attack.

Taken together, the two papers send a powerful message: "Sit less, walk more for heart health," says Michael LaMonte, PhD, research associate professor of epidemiology in SPHHP. LaMonte was the first author on the "Circulation: Heart Failure" study and senior author on the "Hypertension" paper.

Both papers relied on data collected over time from participants in the Women's Health Initiative.

"The WHI participants have provided us information on the importance of walking, regular activity and avoidance of sedentary time in prevention of both hypertension and heart failure," said Jean Wactawski-Wende, PhD, a co-author on both studies and SPHHP dean. "Walking and moving are simple activities that can be easily integrated into our daily lives."



Michael LaMonte

# Awarded Projects Range from Opioid Addiction to Maternal Obesity

## PROJECT: A MODIFIED HUB-AND-SPOKE MODEL TO IMPROVE ACCESS TO MEDICATION FOR OPIOID USE DISORDER.

- **Co-principal investigators:** Sarah Heavey, PhD, clinical assistant professor, and Gregory Beehler, research assistant professor, Department of Community Health and Health Behavior
- **Funder:** VA Pain/Opioid CORE's Rapid Start Funding

The study will evaluate whether delivery of medication to veterans diagnosed with opioid use disorder improves after the implementation of a “hub-and-spoke” program. Such a program is an emerging way to treat people with opioid use disorder and includes a central “hub” of addiction medicine experts who can initiate medication assisted treatment (MAT) for patients, consult on challenging cases, and provide the necessary training to spoke providers so they can prescribe MAT. “Spokes” are healthcare locations (like primary care offices or emergency departments) that connect patients to the hub doctors and help manage and support these patients once they’ve stabilized on MAT.



Sarah Heavey



Gregory Beehler



Katarzyna Kordas

## PROJECT: EFFECT OF COMPLEX MIXTURES ON OXIDATIVE STRESS AND COGNITION IN CHILDREN

- **Principal investigator:** Katarzyna Kordas, PhD, associate professor in the Department of Epidemiology and Environmental Health (EEH)
- **Co-investigators:** Hailey Banack, PhD, EEH research assistant professor, James Olson, PhD, UB Distinguished Professor, Guan Yu, PhD, assistant professor, Department of Biostatistics
- **Funder:** National Institute of Environmental Health Sciences/NIH

From a very young age, children are exposed to many different chemicals (from metals to air pollutants), which they experience as mixtures. This new study will examine the extent to which chemical mixtures in early- to middle-childhood affect oxidative stress, a molecular process thought to underlie the development of chronic diseases, as well as cognitive functions that underlie children’s learning and social interactions. The project will also examine the extent to which antioxidants can buffer the effects of metal mixtures on the study outcomes. The project is based in the Salud Ambiental Montevideo environmental cohort of school children in Uruguay, which Kordas co-leads with colleagues from the Catholic University of Uruguay.

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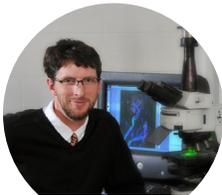
**PROJECT: EVALUATING THE LRT METHOD FOR POST-MARKETING SURVEILLANCE FOR DRUG SAFETY: COMPARISON AND CONNECTIONS WITH THE PATTERN DISCOVERY FRAMEWORK**

- **Principal investigator:** Marianthi Markatou, PhD, professor, Department of Biostatistics, and associate chair of Research and Healthcare Informatics
- **Funder:** United States Food and Drug Administration

Many medical products are approved that were tested in a relatively small number of patients compared to the population in which they will be used. Once they're in use in a greater number of people, they have to be continuously monitored for possible adverse reactions. This "pharmacovigilance" is vital for public health. Because no gold standard of identifying these adverse effects exists, this project will promote the use of strong scientific methods and create new ones, ultimately sharpening and facilitating accurate monitoring of adverse events.



Marianthi Markatou



Kirkwood Personius

**PROJECT: IMPROVING FUNCTION AFTER PERIPHERAL NERVE INJURY**

- **Co-principal investigator:** Kirkwood Personius, PhD, clinical associate professor, Department of Rehabilitation Science
- **Funder:** SUNY Research Seed Grant Program

Injuries to peripheral nerves (which send messages from the spinal cord to the rest of the body) disproportionately afflict healthy young people, with large proportions of sufferers demonstrating persistent weakness. This collaborative project, which also involves researchers in the departments of Chemical and Biological Engineering, and Physiology and Biophysics, will investigate whether a gene essential to maintaining embryonic stem cells—NANOG—improves muscle re-innervation and function following an experimental nerve injury.



**PROJECT: PROTECTIVE EFFECTS OF DIETARY PULSE FLOURS ON TRANSGENERATIONAL INFLUENCE OF MATERNAL OBESITY**

- **Principal investigator:** Todd Rideout, PhD, associate professor, Department of Exercise and Nutrition Sciences
- **Funder:** USDA Agricultural Research Service.

The project will explore the influence of mothers eating dietary pulses (dry beans, peas, lentils) during pregnancy in protecting against the impact across generations of obesity, potentially through the change of the intestinal microbiome—the microbes that live in the intestines—in mothers and offspring.



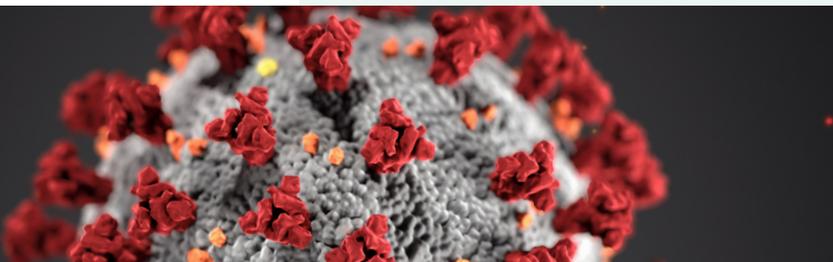
Todd Rideout





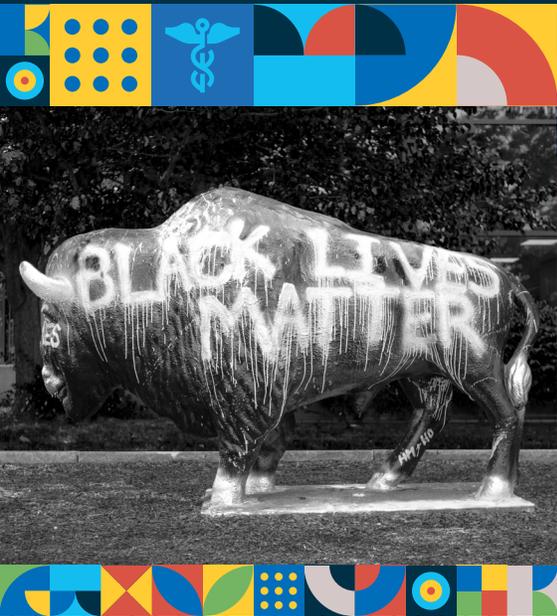
## Update: SPHHP COVID-19 Work Continues

- Assistant Professor of Community Health and Health Behavior Lucia Leone, PhD, published a paper about how changes to America’s retail food system during the COVID-19 pandemic are increasing food insecurity and health disparities, particularly for lower-income communities and communities of color. Her paper was featured in a special issue of the “International Journal of Environmental Research and Public Health” examining the importance of research and evaluation of retail strategies to support healthy eating.
- The Women’s Health Initiative (WHI, see page 4) recently surveyed more than 47,000 women to understand the impact of COVID-19 on WHI participants. The survey asked about whether the women had been tested, the number who had tested positive, as well as about the impact of the pandemic on their lives. Question topics included changes in their behaviors (shopping, living, family), emotional impact, doctor visits and more. WHI researchers are compiling the data and hope to begin to report findings soon.
- A project between Associate Professor of Epidemiology and Environmental Health Tia Palermo, PhD, and UNICEF received a grant from Deutsche Gesellschaft fur Internationale Zusammenarbeit GmbH. The grant, which supports the mobile collection of data, is helping researchers understand how COVID-19 has affected the livelihoods and well-being of adolescents in Southern Tanzania. Palermo is principal investigator on the project.
- Greg Wilding, PhD, professor and chair in the Department of Biostatistics, is involved in a project testing melatonin as a treatment for patients with mild to moderate COVID-19. The clinical trial on melatonin is one of the few being conducted around the world and the only one in New York State. This pilot study will inform the researchers whether the dose of melatonin used in the study is safe for COVID-19 patients. Wilding also contributed to the State University of New York’s recommendations for COVID-19 surveillance testing throughout the system.
- Associate Professor of Rehabilitation Science Patricia Ohtake, PhD, published a paper in *Physical Therapy Journal* about the importance of identifying post-intensive care syndrome (PICS) in patients in a home-care setting after they’ve been treated for COVID-19 in the intensive care unit. PICS refers to health problems that remain after a critical illness. Ohtake has also published patient guides to rehabilitation for PICS that are relevant to patients who have been in the ICU with COVID-19.



# MEANINGFUL ACTION

## SPHHP TAKES ON ISSUES OF DIVERSITY



Last spring's tumultuous nationwide reaction to the killing by police officers of George Floyd, Breonna Taylor and many other Black people led the School of Public Health and Health Professions community to a decision: SPHHP would channel its outrage into taking meaningful action on race and class diversity and building a more supportive environment.

As the University of Buffalo and the State University of New York also did at the time, SPHHP articulated its stand against police brutality and systemic racism in any form. Each school at UB began looking at how it addresses racism, with an eye toward building upon and improving what they do.

SPHHP's moves were and are, however, informed by a particular perspective: that racism and other forms of discrimination are public health crises, a certainty driven home by the inequities brought into sharp relief by COVID-19. SPHHP's goal is to drive health equity, especially in Western New York. This means contributing to a public health and health professions workforce that's more diverse; preparing students to deliver the highest quality of care and services across communities; and engaging in service and research that benefit people of color.

⋮  
Continued  
⋮

“We want to make our programs more supportive and offer an even more outstanding learning experience for all,” said Heather Orom, PhD, associate dean of equity, diversity and inclusion. “SPHHP’s learning community is enriched by differences in perspectives and background,” said Orom. “A diverse student body, faculty and staff is instrumental in promoting competence in public health and clinical practice.”

With that stake in the ground, the SPHHP community has been planning and putting into place specific ways not only to grow a more diverse body of students, faculty and staff, but also to nurture a culture of inclusion.

## WORKING GROUPS MAKE KEY CHANGES

Emerging from a greater awareness of structural racism, nearly 50 faculty, staff and students from all departments joined working groups making changes in eight key areas:

### Recruiting diverse students

1.

**Early outcome:** Informational sessions with student ambassadors in undergraduate classes, organized by the Office of Academic and Student Affairs.

**What’s next:** More information sessions for public health, exercise science and statistics undergraduate classes during the spring semester.

2.

### Hiring a more diverse faculty and staff

**Early outcome:** A new standard operating procedure for hiring that includes training members of search committees about unconscious bias, encouraging diverse candidates and the importance of diversity in achieving excellence; keeping searches open until the pool of applicants reflects the make-up of the racial/ethnic background of the labor pool.

**What’s next:** Paving paths for students to advance from undergraduates to PhD candidates to UB faculty or community leaders.

3.

### Funding scholarships for students from diverse backgrounds

**Early outcome:** Creation of SPHHP’s new Student Diversity Fund, with its founding donors in place.

**What’s next:** Finding local organizations interested in making stipends available to field trainees from diverse backgrounds.

Continued

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STUDENTS FIND MORE  
AVENUES OF SUPPORT  
(P.15)



4.

### Making classrooms more inclusive

**Early outcome:** "Creating a Collaborative Learning Environment," a webinar featuring a panel of students, faculty and break-out groups that offered teachers strategies to help support students from different backgrounds and experiences in a variety of situations.

**What's next:** An SPHHP faculty "community of practice" to explore ways to create a more inclusive learning environment for students.



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TO ADMISSION  
EMERGE  
(P.16)



5.

### Understanding students' level of preparedness to work in diverse workplaces and with clients from all backgrounds

**Early outcome:** Adding metrics to MPH students' final project that gauge diversity, equity and inclusion as a core MPH competency.

**What's next:** Adding questions to ongoing evaluations of programs and field experiences to measure how well they include learning related to diversity and inclusion.

6.

### Offering easy-to-access, responsive ways to report discrimination

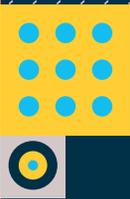
**Early outcome:** Designing visually appealing messages to encourage students to report discrimination and provide information on how to do so.

**What's next:** Fine-tuning a discrimination-reporting system that students, faculty and staff are comfortable using and believe in without fearing retribution or inaction.

### Are you mentor material?

Student comments after SPHHP's recent alumni panel webinar revealed a strong desire for mentors, especially mentors of color. One student's reaction: "I was glad to see African-American women like me in such high levels of power. I was looking for a lot of mentorships and internships...but was just stuck on how to find them."

If you think you could answer the call, contact [Mary Glenn](#), SPHHP's assistant dean for community engagement.



7.

### Creating mentoring opportunities for students from diverse backgrounds

**Early outcome:** A November webinar featuring a panel of accomplished SPHHP alumni of color giving students advice, tips and inspiration for achieving their career goals.

**What's next:** A mentorship program for SPHHP students, especially with mentors of color.

8.

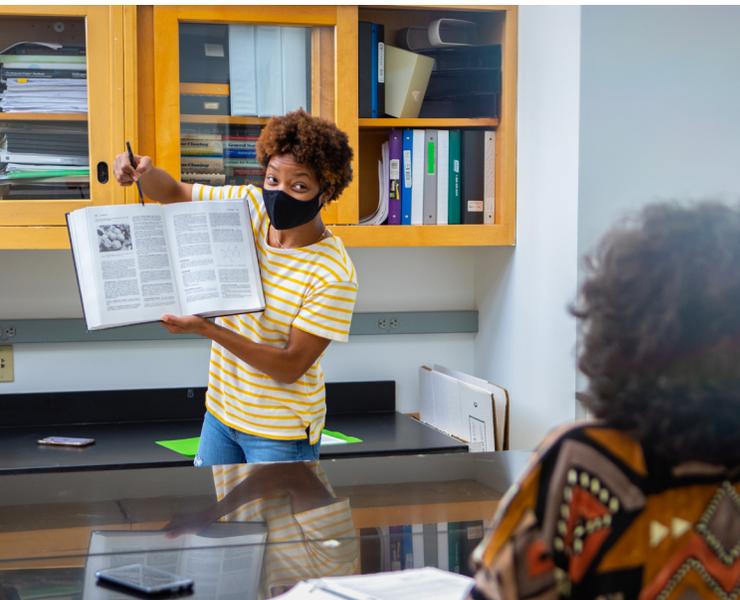
### Supporting the SPHHP community in their efforts to be part of the change

**Early outcome:** An extensive list of resources on ways to be an anti-racist available on the SPHHP website.

**What's next:** The launch of a podcast that during its first year will concentrate on the issue of racism and health.



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KNOWLEDGE ABOUT  
DISCRIMINATION AS A  
PUBLIC HEALTH CRISIS  
(P.15)



## STUDENTS FIND MORE AVENUES OF SUPPORT

SPHHP’s view of diversity and inclusion is expansive, reflected in the financial support students receive. (The school considers not only race and ethnicity, but also age, sex and sexual orientation, gender identity and expression, disability, religion, socio-economic status, veteran status and whether students are the first in their family to go to college.) In the past four years SPHHP has been able to offer much more generous scholarships to attract applicants of diverse backgrounds to its graduate programs. In fact, over the past three years, the school and faculty have devoted funds to supporting seven new diversity scholars who receive tuition support and stipends.

- ▶ The newest source of support is SPHHP’s Student Diversity Fund, dedicated to helping students overcome their barriers to attending programs at the school. “The hope is that this fund will help SPHHP recruit, enroll and retain students across all departments and programs housed within our school,” said Jean Wactawski-Wende, SPHHP dean.
- ▶ Michael F. Noe, MD, SPHHP emeritus clinical professor, recently endowed another new fund expressly supporting the school’s educational diversity, equity and inclusion. The Dr. Michael F. Noe Diversity Scholarship will provide support to students from historically underrepresented populations—including Native Americans—who demonstrate academic excellence and financial need. The fund can also help build recruitment activities to engage diverse student candidates.
- ▶ The Schomburg Fellowship Program has been supporting exceptional doctoral and professional students for several years now. Schomburg fellows contribute to the diversity of UB’s student body, and many have overcome a disadvantage or obstacle to succeed. Several current SPHHP students are Schomburg fellows.
- ▶ For nearly a decade, the Maureen R. L. Mussenden Scholarship Fund has supported students pursuing a graduate degree in one of UB’s health sciences schools (including SPHHP) whose parents did not receive a college degree (“first in family”). One of this year’s Mussenden scholars is a student in SPHHP’s 3+2 MPH program.

Click to  
**Give to the  
 Student  
 Diversity Fund**

You can support students from diverse backgrounds by donating to SPHHP’s [new Student Diversity Fund](#). Your gift will help students with expenses like tuition, conference attendance, technology and more. Even more important: your support shows students from diverse backgrounds that you value them as future professionals who can improve health for people and populations.

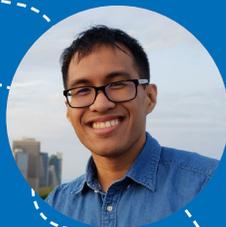
## SNAPSHOTS OF THREE SCHOLARS



Mussenden Scholarship winner **Temara Cross** is working on her BS in pre-medicine and public health followed by a master of public health degree in community health and health behavior. She is a REACH (Racial and Ethnic Approaches to Community Health) program assistant and an intern at Cikatelli Associates, Inc., an organization that tackles health and social issues in communities. Cross is also a research apprentice at Roswell Park Comprehensive Cancer Center.



Schomburg fellow **Schuyler Lawson** is working on his doctoral degree in SPHHP's Department of Community Health and Health Behavior. Currently, he's the project coordinator of the HEROIC study, led by Professor Gregory Homish, PhD, a research study comparing treatment outcomes in opioid users in a specialized opioid intervention court to outcomes in a traditional drug court. His research interests are disparities in mental health, substance abuse/use, and treatment utilization and how they relate to racial/sexual minority status.



Student Diversity Award recipient **Geoffrey Mercene** is a third-year student in a dual-degree graduate program combining an MPH and MBA. [Find out how](#) the award made his opportunities flourish.

## NEW COURSES AND CLEARER PATHS TO ADMISSION EMERGE

SPHHP's efforts to advance racial justice and combat discrimination have resulted in varied changes at the academic level.

- The Department of Community Health and Health Behavior offers a [Micro-credential in Eliminating Health Inequities](#). UB graduate students and community members can gain expertise in evidence-based strategies for eliminating health inequities. This two-course sequence is perfect for leaders in a range of sectors who want to position their organizations to make a bigger impact on health inequities.
- SPHHP is offering a groundbreaking new course that focuses on the real histories of Indigenous peoples, their cultural norms and adaptations, their traditional healing practices, and the impacts of colonization on them through the advancement of westernization. Noted health scientist Dean Seneca, MPH, MCURP, CEO of Seneca Scientific Solutions+, will teach the course, "Indigenous Health Disparities."
- SPHHP has eliminated the GRE requirement for the MPH and most of its other master's degree programs. Historically, the GRE posed a barrier to applying to and attending graduate school for people with limited financial means and applicants of color. "UB was at the forefront among accredited schools of public health in the move away from the GRE," Orom explained.



Dean Seneca

## SPHHP GROWS AWARENESS OF DISCRIMINATION AS A PUBLIC HEALTH CRISIS

Because the SPHHP community has acknowledged the issues related to discrimination as a public health crisis, the school is also working on new ways to grow awareness and understanding of diversity and inclusion even outside its walls.

The podcast developed by one of SPHHP's working group, "Buffalo Healthcast," will be available to anyone through popular podcast platforms. Guest speakers will represent a spectrum of opinions, research and expertise and include scholars from SPHHP and other organizations. Associate Professor Tia Palermo, PhD, whose research looks at, among other things, the impacts of government social protection programs on health and well being, is co-host, along with Clinical Assistant Professor Jessica Kruger, PhD.

Likewise, the group published its list of anti-racist resources on the SPHHP and Office of Inclusive Excellence web pages to make them available to anyone visiting those pages, not just to SPHHP.

Last winter's Warren J. Perry Lecture featured a renowned expert on racial differences in health outcomes speaking to a nationwide audience. Thomas A. LaVeist, PhD, dean and Weatherhead Presidential Chair in Health Equity at Tulane University's School of Public Health and Tropical Medicine, offered an evidence-based primer on how health disparities propagate, myths surrounding them and how accurate data can clarify the issue. [Watch the lecture.](#)



Tia Palermo



## Perry Lecturer Calls for “True Studies” of Racial Health Disparities

**DR. THOMAS A. LAVEIST’S** interest in health equity began as he procrastinated one day during the writing of his dissertation. Wasting time at a bookstore, he browsed a volume on the Titanic disaster. The statistics about female Titanic survivors, he discovered, showed that death rates correlated to the class of ticket the traveler held: Women in first-class cabins got onto lifeboats at much higher rates than women in steerage.

Interest more than piqued, LaVeist embarked on a career-long investigation of how health policies, regulation, economic status and more affect the quality of healthcare and, indeed, health itself, focusing on disparities experienced by Black people.

Today LaVeist is dean and Weatherhead Presidential Chair in Health Equity of the Tulane School of Public Health and Tropical Medicine and a noted expert on equity and health issues. He offered his insights on the topic on Nov. 13 during the 32nd Annual J. Warren Perry Lecture, sponsored by UB’s School of Public Health and Health Professions.

What drives disparities? Said LaVeist, “While we live in a country together, we experience that country in very different ways.” He cited a study of Baltimore, Md., that tallied corner stores selling not much more than cigarettes and bottles of 40-oz. malt liquors—“elixirs for the ills of poverty,” according to LaVeist. Such stores existed almost exclusively in highly segregated, predominantly Black, low-income communities.

*Continued*



Dr. Thomas A. Laveist

The reason? “Racial segregation creates an infrastructure where communities can be targeted for harmful products like malt liquor and exposed to other health risks,” he explained.

A big issue in attempts to study the problem of health disparities based on race is that studies often do not “account for the fact that the country is dramatically racially segregated and that people are living in extremely different risk environments and have different experiences.” The remedy, suggested LaVeist, is to conduct true studies of race by finding “communities where people are living together with the same risk profile and socioeconomic status, and then we can say we have a true apples-to-apples comparison, and we can say something about the disparities.”

LaVeist and his colleagues have done just that, by first identifying 426 communities that meet the criteria he outlines. His EHDIC study (Exploring Health Disparities in Integrated Communities) looks at data from several of those areas and compares them with national data sets to see how the results compare related to disparities.

“Racial segregation creates an infrastructure where communities can be targeted for harmful products like malt liquor and exposed to other health risks.”



Click to  
**View the  
Lecture**

“When people live under similar conditions, we find their health outcomes are much more similar,” LaVeist said.

Ultimately, he added, the four “Great Race Disparities” are health, education, wealth and criminal justice. Unless society acknowledges that they form a “causal web” that all influence one another, “We won’t make any progress.”

LaVeist revisited a question he posed at the beginning of his talk asking what a society without racial disparities would look like. He closed with the follow-up question—a challenge, in fact—“What would we have to do to make that possible?”

The J. Warren Perry Award and Distinguished Lectureship is the School of Public Health and Health Professions’ lecture series honoring the late J. Warren Perry, PhD, founding dean of the School of Health Related Professions.



# COVID-19 Expert Jha Predicts 18-month Pandemic During Lee Lecture

## THE FIFTH ANNUAL RICHARD V. LEE, MD, LECTURE

in Global Health, presented by noted COVID-19 expert Dr. Ashish K. Jha, was a study in dichotomies.

Jha, dean of Brown University's School of Public Health, leads national analysis of key COVID-19 issues and appears frequently in national news outlets. While predicting that the world is entering an "age of pandemics," he also made a "bold and risky" prediction that the lifespan of the COVID-19 pandemic would be around 18 months. And, although the popular Lee Lecture traditionally takes place in person, this year's virtual event allowed more than 500 people from around the globe to hear Jha speak.

Jha quickly put his stake in the ground with an admittedly "bold and risky" forecast that COVID-19 will be an 18-month pandemic. Right now, he said, "We're at the bottom of the fifth inning of a nine-inning game." Placing the beginning of the pandemic as Jan. 1, 2020—the day after China informed the World Health Organization of a new source of viral pneumonia of unknown cause in Wuhan—Jha believes the pandemic will be under reasonable control by—"optimistically"—June 2021.

By February/March, new technologies will lead to widespread testing, which will make an "enormous difference" in terms of how much protection exists in the community. Next, Jha said, is the emergency-use designation for possibly three or more vaccines. If 60 to 70%



Dr. Ashish K. Jha

of people decide to get a vaccine that is 70 to 80% effective, with front-line and high-risk people getting vaccinated first, by June, "things could be measurably better."

His timeline is specific to the U.S. and Europe. The timeline is longer for the rest of the world and largely depends on vaccine development: "Our ability to make billions of doses is an enormous challenge." The development, manufacture, distribution and delivery of a vaccine or vaccines is a vital link in the chain of success, and Jha emphasized the need to get it done right.

Another key link is the public health field itself. While the whole world now understands the importance of the public health field, public health professionals also have to make sure to work with people outside of their discipline—education specialists, economists, sociologists, and others. The world is not going to leave the ultimate solution to the pandemic just to public health experts, so "we need to broadly engage people outside our field," he added.

The Richard V. Lee Lectureship in Global Health is presented by the School of Public Health and Health Professions in memory of Lee, a former UB faculty member.

“Our ability to make billions of doses is an enormous challenge.”

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Lecture**

# Compassion Drives Research into Brain Injuries and Their Aftermath



## THE EFFECTS OF BRAIN INJURIES, especially traumatic brain injuries, are often devastating.

They can lead to serious health issues like disorders of consciousness (DOC) that range from comas and persistent vegetative states to states in which patients are minimally conscious. Yet, for all the destruction they wreak, brain injuries have no documented treatments and no gold standard of assessment.

If Assistant Professor of Rehabilitation Science Ghazala Saleem, EdD, OTR/L, has any say in the matter, that situation will change. She focuses on two specific areas related to brain injury: sequela—abnormalities—following a brain injury or concussion in children, and brain injury related to intimate partner violence.

Saleem's work spans the spectrum of acquired brain injury—injuries that occur after birth due to accidents, stroke and other causes. But her interest in DOC emerged after experiences during a post-doctoral fellowship, when she observed an occupational therapist working with a two-year-old patient who had been in a coma but was now in an unresponsive vegetative state.

"The way the therapist was communicating with the family, addressing the family's worries about their toddler, and his dedication to his work fascinated me," she said. Inspired, Saleem began doing research on DOC in children.

For all the destruction they wreak, brain injuries have no documented treatments and no gold standard of assessment.

## Addressing lacks in treatments

Ultimately, she recognized a shortage of evidence-based treatments and assessments for pediatric and adult patients with acquired brain injuries. Those lacks, she felt, led to issues in diagnosing and offering prognoses for patients. She found, for instance, very limited data that differentiated a vegetative state (person is awake but showing no signs of awareness), from a minimally conscious state (some awareness, inconsistent responses to commands, and passage through the stages of sleep).

"Estimates are that 40% of DOCs are misclassified," Saleem said. "If you do not diagnose conditions correctly, survival decisions become difficult." Over time, she expanded her interest in DOC by exploring possibilities around using a basic type of brain stimulation to treat DOCs.

Saleem joined the SPHHP faculty about a year ago and was just about to set up her Brain Function and Recovery Lab when the COVID-19 pandemic put a halt to the work. Once the lab is running, Saleem will continue research into brain injury rehabilitation that she began while a post-doctoral fellow at Johns Hopkins University School of Medicine. The focus is on children's post-concussion issues that might not show symptoms but that

*Continued*



Ghazala Saleem

can often lead to further brain injuries. Saleem looks specifically at children's ability to stand and sit upright without any support—called postural control—and other issues like how they control their way of walking.

The questions she strives to answer are important factors in how well children recover from concussion: "What kind of deficits are [children] having even after recovery? Is their brain recovering at the same time that they have physical recovery? Does postural control make them more prone to further injury? They're at higher risk of sustaining another musculoskeletal injury after the concussion, so we're trying to find answers about what happens when they go back into high-risk activities, for instance.

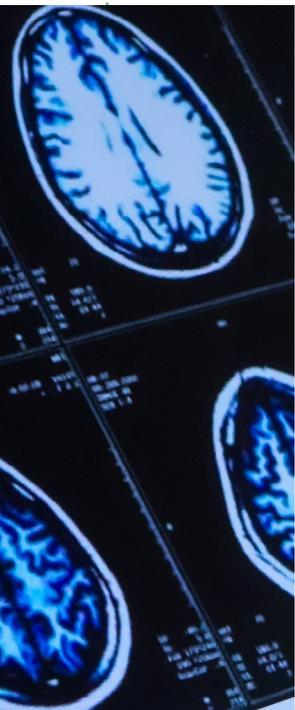
"Traumatic brain injury is so devastating to families and children," Saleem said. "The number of children with disorders of consciousness is small, but the suffering and impairment is so severe."

### Brain injury in intimate-partner violence survivors

Saleem's interest in women who suffer brain injury from intimate partner violence is similarly informed by compassion and the fact that brain injury and its signs and symptoms are very individualized. After she arrived in Buffalo, she connected with the Family Justice Center of Erie County, which offers free services for domestic violence victims and their children, and became a medical advisor to the organization's board.

"There's still not any definitive research on intimate partner violence and brain injury," she said. The Family Justice Center "welcomed me and were very interested in finding solutions, especially since female survivors are experiencing symptoms and getting dismissed by primary care doctors." Saleem next hopes to determine objective ways to diagnose brain injury in survivors, through biomarkers like exercise intolerance.

"This will be a breakthrough," she said. "We want to do a longitudinal study of this population, which will be the first step to helping individualize treatment. Other populations experience the same devastation with brain injury, but it's so much more difficult when children or women experience brain injury through intimate partner violence. Sometimes these populations suffer in silence. This is what motivates me."



### Attention growing for Saleem's work

- A paper on which Ghazala Saleem was first author, "Sleep Symptoms Predict School Attendance after Pediatric Concussion," was accepted without revision by the journal "Clinical Pediatrics." The study is the first to examine the impact of post-concussion symptoms on school attendance in children and adolescents who had specialty care after their concussion. It shows the importance of managing sleep issues after a concussion to smooth the path to a CDC-recommended early return to school.
- Another paper Saleem co-authored with a team from the United Arab Emirates University Department of Neurology, "Brain Data in Pediatric Disorders of Consciousness: Special Considerations," was recently accepted in "The Journal of Clinical Neurophysiology."
- The journal "Neuromodulation; Technology at the Neural Interface" accepted her paper "Transcranial Direct Current Stimulation Feasibility Challenges in Youth with Severe Brain Injury: A Case Report," which she will present at the North American Neuromodulation Society Conference.
- A poster Saleem co-authored with one of her doctoral students reviewing the use of brain stimulation as a possible intervention during occupational therapy received the Early Career Scientist Award at the American Occupational Therapy Association Conference's Early Career Scientist Theater.
- An editorial on the harmful brain injury-related consequences in Pakistani female survivors of intimate partner violence during a COVID-19 lockdown was recently accepted in "The Journal of Pakistani Medical Association." Saleem was a senior author.
- Through UB's Clinical and Translational Science Institute, Saleem is participating in a yearlong nationwide study at academic institutions called Building Up Research, which aims to jump-start the careers of underrepresented junior investigators through mentoring and training on key career-development skills.

## High Honors for Rehab Science Faculty

The Department of Rehabilitation Science recently congratulated several faculty members who received some of the highest honors accorded professionals in their fields.

### James Lenker, PhD OTR/L FAOTA,

was awarded the title of Fellow of the Rehabilitation Engineering and Assistive Technology Society of North America (RESNA). The RESNA Hall of Fellows recognizes its members for their significant contributions to the organization and the field of assistive technology. Lenker received the honor for his decades of work alongside RESNA and also for his recognition as an international expert in assistive technology. He also previously earned the title of Fellow of the American Occupational Therapy Association. Lenker is an associate professor and director of the Advanced Graduate Certificate in Assistive and Rehabilitation Technology Program at UB.



**Sharon Ray, ScD, OTR/L,** received the Roster of Fellows Award from the American Occupational Therapy Association (AOTA). The AOTA Roster of Fellows recognizes occupational therapist members who, through their knowledge, expertise, leadership, advocacy and guidance, have made significant contributions to the profession over time, with a measured impact on consumers of OT services and AOTA members. Ray was recognized for her lifelong work as a, according to the association, “Consummate Practitioner-Scholar, Tenacious Advocate, and Empowering Mentor.” She is a member of the Massachusetts Occupational Therapy Association and the New York State Therapy Association. Ray is a clinical associate professor and co-director of the Rehabilitation Science PhD Program at UB.



### Janice Tona, PhD, OTR,

received the President’s Award from the New York State Occupational Therapy Association (NYSOTA). NYSOTA selects winners of this award based on their significant contribution and exceptional dedication to the profession of occupational therapy. Tona was selected for her development of the NYSOTA Academic Affairs Alliance, a state-wide initiative in New York connecting OT faculty, fieldwork, capstone educators, program directors and students to become stronger together. She also has professional affiliations with the American Occupational Therapy Association as well. Tona has been an occupational therapist for more than three decades and has worked in higher education for more than two decades. She is a clinical assistant professor and director of the Occupational Therapy Program at UB.



The National Academies of Practice have named **Patricia Ohtake**, associate professor and assistant vice president for interprofessional education (IPE) in UB’s Academic Health Center, a distinguished fellow. The National Academies of Practice advances interprofessional health care by fostering collaboration and advocating policies in the best interest of individuals and communities. Its distinguished fellows have “an exemplary career of 10 years or more and have made significant contributions to interprofessional health care.”

The distinguished fellowship designation recognizes Ohtake’s leadership, vision and professional contributions in the advancement of interprofessional education and



physical therapy. In the area of interprofessional education, she has led development of UB’s interprofessional education and practice initiatives, including a nationally recognized IPE Program and interprofessional research contributing to the discipline’s literature.

Through her research in physical therapy and education of physical therapy students she has made significant contributions to the advancement of rehabilitation for people in acute (hospital) and critical care settings, as well as rehabilitation for people with post-intensive care syndrome. The award recognizes not only Ohtake, but also UB as a national leader in the field of interprofessional education.

# Higher or Hotter? Doctoral Candidate Searches for Ways to Get Used to Altitudes Quicker

**Getting your body used to a high altitude takes time. Or does it? That's the question Courtney Wheelock is trying to answer.**

Wheelock is a second-year PhD student in the Department of Exercise and Nutrition Sciences (ENS). Her research, and ultimately her dissertation, looks at whether heat acclimation, which takes less time than altitude acclimation, might be a good substitute if someone needs to quickly get used to a high altitude.

Wheelock calls it “cross acclimation” between a hot environment and hyperbaric (high altitude) exposure. The theory, she says, “is that heat acclimation might improve conditioning in high altitudes.” Wheelock is studying the idea at a specific height of 8,000 feet above sea level, roughly the altitude of Afghanistan. Once you get above 2,500 feet, she explains, physical performance declines in people who aren't acclimated.

Typically, people can spend years getting acclimated, but what if someone is in the military or is an elite athlete, someone who needs to travel somewhere and get acclimated quickly? Getting used to a hotter environment—heat acclimation—is “faster and cheaper, and could be a reasonable substitute for people who don't have the opportunity to altitude acclimate,” Wheelock said.

Wheelock, who has been diving for 11 years, initially was interested in dive physiology by way of underwater science.

“I actually considered a lot of avenues. I shadowed sport medicine doctors and athletic trainers, then helped in a research lab.” She decided on her current path once she examined the existing research and found the resources in the ENS department to explore a range of environments. She can explore what happens in hot or cold environments in the department's environmental chamber, and can simulate environments of different heights in the hypobaric chamber.

“Several cross acclimations are possible,” she said, “but the resources here make it possible to step into a newer kind of research.” Wheelock has just started collecting data for her dissertation project, which will consist of one large study with independent sub aims. Her main aim is to determine if heat acclimation improves physical performance at high altitudes. A sub aim might be determining the mechanisms of exactly how performance is improved.

“We'll be taking blood samples to measure biomarkers, and we'll compare those, as well,” Wheelock explained. “I'm sure we'll find surprises in data that we'll have to go back and analyze.” Wheelock's primary mentor is ENS Chair David Hostler, PhD. ENS Assistant Professor Riana Pryor, PhD, is also helping with Wheelock's study.

“The department is super collaborative, and I can get feedback from professors with a wide variety of backgrounds.” Interestingly, one of her favorite courses was grant writing and getting funded, which she said



most undergraduate or even master's students don't learn about.

Wheelock said she has always been interested in knowing how the body works in order to adapt and push past what it might be capable of. Whether it's elite athletes, divers, emergency responders or others, she's fascinated with how the human body works, “especially in environments we're not supposed to be in.”

“There are so many different avenues in research that it's mind-blowing,” Wheelock said. “For example, I keep learning about researchers in just one biomarker I'm studying. Human performance is a broad interest of mine, but narrow enough that I can follow where it leads me.”

Courtney Wheelock





Andrew Korman

## Seeding Trust in a COVID-19 Vaccine

Given that the COVID-19 pandemic has fueled the need for public health practitioners exponentially, **ANDREW KORMAN, MPH '20**, entered the public health job market at an ironically **fortuitous time**. Once he graduated from UB, he immediately found work on the front lines of the public health response as a research data associate with NYU Langone Health Vaccine Center at its Brooklyn location.

### What does a research data associate do?

I collect and report data to our study sponsor. Right now, we are recruiting and enrolling participants for AstraZeneca's Phase III COVID-19 Vaccine Trial. I also contribute to the Vaccine Center's community engagement efforts. Our goal is to foster meaningful connections with community stakeholders in order to enhance awareness of and access to the Vaccine Center. We have been reaching out to potential [vaccine trial] participants and community members to educate them on COVID-19 as well as what's happening at the vaccine center. We've hit the ground canvassing in person and interfacing with NYU clinics, providers and patients, and community organizations like homeless shelters.

### What's the goal?

We're providing people with correct information because lots of the news and perceptions out there of COVID-19 are not the big picture. Our task has been correcting misperceptions about COVID-19 and the vaccine. For instance, some people say they don't want to be "guinea pigs," but vaccines have always been an important public health tool. They were designated the leading public health achievement of the 20th Century. We want people to understand that no safety measures are being skipped to expedite the production and distribution of COVID-19 vaccines. All potential vaccines will go through extensive safety and regulatory processes to ensure the safety, efficacy and quality of the vaccines.





## How are people reacting to your message?

The reception to our message depends on their demographics and pre-existing conditions. Lots of people are not excited about joining a clinical trial, but their contribution by participating is so important. We're trying to find the balance between the benefit to participants, the contribution to a large-scale clinical trial and the larger public-health apparatus. The most important message is to stay up to date with the newest information. We're all learning everything at the same time. With an ever-changing landscape, public health practitioners have the knowledge to inform the general population of best practices.

## Why did you decide to get a degree in public health?

I got my bachelor's degree in exercise science and originally wanted to pursue a doctor of physical therapy degree. During my senior year I took my first and only public health course, Public Health 101 with Dr. Sarahmona Przybyla, and that was it. She opened my eyes to the importance of prevention and community engagement. From that class alone, I decided to apply for the MPH Program. Dr. Przybyla became my advisor and mentor throughout the program and really helped with my public health education.

## What do you remember best about your time at SPHHP?

Conducting my field training at the Centers for Disease Control in the Office of Smoking and Health. I conducted research with the senior medical officer there identifying common myths about nicotine-replacement therapy and how that affected people who smoked. I got to experience interprofessional education in real life, working with communicators, analysts, doctors—it was my first time in a real-world setting where I had to interface with all kinds of people. It really helps in my current job where I interact with doctors, regulators, nurses, and other professionals.

## How did COVID-19 affect what you're doing currently?

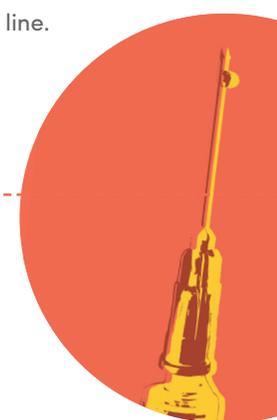
I was not planning on going the infectious disease route. At the CDC, I gravitated toward chronic disease research and prevention. With the pandemic, I pivoted and filled a gap that's needed in my community, because I had the experience in community health, communications, etc.

## What's most meaningful to you about your career?

Giving back to the community in the small way I can and progress the vaccine. Also, educating regular people, public health professionals and doctors about the best practices of dealing with COVID-19 by keeping up with current literature and informing all stakeholders about what's needed from everyone.

## Why should someone consider a degree in public health?

Especially after the pandemic, public health is going to get the respect it deserves. It's been neglected, but now it's growing exponentially in importance and reach. This is the time to push for policies and best practices that influence public health, and not just focus on the bottom line.



Contact Andrew Korman at [afkorman@buffalo.edu](mailto:afkorman@buffalo.edu) or connect with him on [LinkedIn](#).

# Health Impact

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### Przybyla receives Special Recognition Award from New York State Health Commissioner...

Sarahmona Przybyla, PhD, MPH, an HIV and AIDS researcher in SPHHP's Department of Community Health and Health Behavior, was honored by New York State Commissioner of Health Howard A. Zucker as part of a virtual summit marking 2020 World AIDS Day. She received one of the commissioner's Special Recognition Awards during the Ending the Epidemic Summit. Zucker lauded Przybyla as "an innovator in the field of HIV prevention research. Her contributions to scientific literature have led to advancements in pre-exposure prophylaxis (PrEP) uptake and dissemination."

Przybyla also was honored for the strong partnerships she's developed over the past decade with local nonprofit organizations, health departments and county court systems to understand barriers to, and enhance engagement in, HIV care. Przybyla's research focuses on primary and secondary prevention of HIV and other sexually transmitted infections, and the impact of substance use on sexual risk behavior and medication adherence. She is also an expert on nonmedical prescription drug use, patient-provider communication, and community-based participatory research.