

University at Buffalo

# Health Impact

From the University at Buffalo School of Public Health and Health Professions Summer 2021



BACK

*SPHHP's labs are back  
and working on improving  
health for everyone*

IN

ACTION

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*On the cover:* Exercise and Nutrition Sciences (ENS) PhD candidate Courtney Wheelock observes as Jocelyn Stooks, MPH, ENS senior research support specialist, rides a stationary bike in the Center for Research and Education in Special Environments' hyper/hypobaric chamber. Wheelock is the graduate research assistant on a study that looks at how military divers' bodies react when they emerge from a "transport dive" and need to exert themselves further on land.

## FROM THE DEAN



The headline of this issue's cover story on our school's labs—"Back in Action"—might be an apt phrase to apply to our personal and professional lives as public health measures like the COVID-19 vaccines take hold in our country.

When pandemic shutdowns came in 2020, the School of Public Health and Health Professions' labs were no exception. Faculty who were updating or establishing new labs put their plans on hold, not knowing when they might have the chance to resume their work.

Over the past few months, just as we've all been getting back to workplaces, schools and community spaces, our labs have also come back to life, and the work of our researchers is again active. Thus, the cover article celebrates this moment and looks at a number of SPHHP's labs of various stripes. The format of the article is unusual for Health Impact in that it tells the story primarily via photos. Yet, as we know, a picture is worth a thousand words, so I invite you to spend some time with the dramatic images captured by our photographers.

This spring, we wrapped up what we believe was the last semester in which many of our faculty and staff worked at least partially from home and students logged into most of their classes on Zoom. Although the University at Buffalo never closed, it has announced that in the upcoming fall semester, our campus community will again welcome faculty, staff and students in person, which was much anticipated news. About 85% of all classes will be conducted in person!

While we experience in real time our country's collective re-emergence, we should also remember the efforts and sacrifices of our public health and health professionals during the pandemic. These disciplines were among the most important contributors to the recovery, and I am proud that our school is both workplace and training ground for these professionals.

Stay safe and healthy in the new school year!

A handwritten signature in blue ink, which appears to read 'Jean Wactawski-Wende'. The signature is fluid and cursive, with a large initial 'J'.

**Jean Wactawski-Wende, PhD**

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



## Dietetic Internship Evolving for the Future

UB's Dietetic Internship was the first such program in Western New York when it began in 1999. Now, it's moving into the future as a pilot program for the "future education model" for a graduate degree in clinical nutrition, developed by the Accreditation Council for Education in Nutrition and Dietetics (ACEND). The opportunity comes as the accrediting organization revamps its standards to address trends, such as growing requirements for work with interprofessional healthcare teams, significantly affecting the practice of registered dietitian nutritionists (RDNs).

Notably, ACEND revised its standards for students seeking to become RDNs to a master's degree at minimum "to adequately prepare graduates with the complexity, depth and breadth of knowledge, skill and judgement needed for future practice..."

UB's Dietetic Internship program was reorganized into the new model in 2021 and joins a select few graduate programs across the country piloting the new standards and competencies. The pilot "provides us a virtual space to interact, ask questions, share tools, and discuss marketing and recruitment ideas," according to Program Director Nicole Klem, MS, RD.

Ultimately, the pilot will segue into UB's launch of the Clinical Nutrition two-year master's degree program, providing integrated graduate coursework and experiential learning to develop future RDNs. That is slated to begin in fall 2022. Students who

have a bachelor's degree in any major and want to pursue a graduate program for RDNs can apply.

"Instead of students needing a bachelor's in nutrition to enter a dietetic internship program, the MS in Clinical Nutrition program integrates the process into one step for the graduate degree and RDN education," Klem explains. "Also, the shift to having a bachelor's degree in any subject means we can affect diversity in the profession by recruiting from non-traditional programs like language arts, communications, and others."

In addition to the skills upon which students are currently assessed and evaluated, "we also will now have enhanced RDN competencies that will stretch the professional preparation of MS RDN students," Klem said. Graduating students will be prepared to sit for the exam leading to an MS RDN credential. They'll also enter the workforce with greater abilities in prescribing medical nutrition therapy and counseling; in global, community and public health; in leadership and administration; and in research and product development.

"We can be creative about expanding the professional footprint using these new standards," Klem added.

For more information, visit [bit.ly/sphhpmscn](https://bit.ly/sphhpmscn)

## Health Equity Among New MPH Focus Areas

The Department of Community Health and Health Behavior (CHHB) in the School of Public Health and Health Professions has introduced two focus areas to its individualized and online individualized Master of Public Health degree programs. In addition to the individualized curriculum that has traditionally been offered, students can now dive deeper and specialize in health equity or addictions.

The focus areas allow students to designate a path when they begin the MPH program, building content expertise and developing practical skills through carefully selected coursework.

CHHB students are already well-equipped to obtain jobs in the public health arena; SPHHP's job placement for MPH graduates has been 100% since 2016. But selecting a focus area and targeting their education and skills to a specific topic within public health will give graduates a leg up on a career path more closely related to the focus area they studied during their time at UB.

Graduates trained to address health equity in the community are crucial for modern public health, according to school officials, who say they are seeing health disparities throughout the country's health system. These include affordable health care options for differing income levels, urban versus rural accessibility, and for Black and Indigenous people, and people of color, as well as low-income populations with greater rates of both morbidity and mortality from COVID-19.

The school's new focus area in health equity will help prepare students to tackle these public health-oriented problems and develop real-world solutions, leveraging their degree to create change in their communities.

**“We see enormous differences in the health and well-being of communities, based largely on differences in race/ethnicity and income. It’s time to address these disparities—for more equity and better health for all.”**

“The health equity focus area in particular meets an urgent need to make quality health care available regardless of income or ethnicity, while also better understanding the social determinants of health that drive so many health outcomes,” says Gregory G. Homish, PhD, professor and chair of the Department of Community Health and Health Behavior.

Sarah Cercone Heavey, PhD, clinical assistant professor and director of MPH programs in the department,

calls health equity “one of the defining issues of our time. We see enormous differences in the health and well-being of communities, based largely on differences in race/ethnicity and income. It’s time to address these disparities—for more equity and better health for all.”

For more information, visit [bit.ly/CHHB-MPH](https://bit.ly/CHHB-MPH)

## UB's Campaign Goal is Even Bolder

Earlier this year, the 175th anniversary of the University at Buffalo's founding, the university announced its intention to extend its Boldly Buffalo fundraising campaign to a goal of \$1 billion. When the campaign launched publicly in 2018, its goal was \$650 million. Donors, alumni and friends, however, have already committed more than \$711 million to the university, paving the way for the even more lofty target.

The Boldly Buffalo campaign has clearly made a difference. From new or renovated spaces and an influx of scholarship dollars to more than 30 new endowed faculty positions and investments in UB's research enterprise, donors are helping propel UB forward. Even during the COVID-19 crisis, UB alumni and friends continued to show their support for the university by contributing nearly \$715,000 toward student and health science emergency funds.

The Boldly Buffalo campaign plays a pivotal role in UB President Satish K. Tripathi's aim of having the university join the ranks of the top 25 public research universities in the nation. Building on what donors have already made possible, the continuing Boldly Buffalo campaign will:

- » enhance UB's research portfolio.
- » add additional funding for endowed faculty positions to attract more world-class researchers to UB.
- » increase the availability of scholarships for students to attract and retain the most ambitious of them, and to provide the experiential learning opportunities that prepare them to lead in an evolving world.
- » modernize the university's built environment to support student and faculty scholars in the spaces where they discover and innovate.

UB continues its efforts to accelerate the pace of discovery, make world-class education more accessible, and prepare students to lead in a rapidly evolving world. The extension of the Boldly Buffalo campaign positions UB to enhance its societal relevance and impact for the next 175 years—and well beyond.

## INQUIRY AND SCHOLARSHIP

# Improving the WIC Shopping Experience

### Team partners with supermarket to test “bundling” of WIC items

Most people don't consider grocery shopping an enjoyable experience. For moms who shop using benefits from the Special Supplemental Nutrition Program for Women, Infants and Children (WIC), it can be downright awful. It's often made worse by difficulty finding eligible products and dealing with a long checkout process. Add kids in tow, and it's enough for many moms to forego re-enrolling in WIC.

But UB researchers are working on ways to improve the WIC shopping experience so customers stay in the program, including working with a Western New York-based supermarket chain on a pilot project making finding and using WIC-eligible products easier.

The team, which includes a researcher from North Carolina State University, recently published a study in the “Journal of Hunger & Environmental Nutrition” that is among the first to examine barriers to and possible strategies for WIC shopping.

WIC provides supplemental foods and nutrition education to low-income pregnant and postpartum women with infants and children up to age 5 whose household incomes are below state-defined thresholds. The program is proven to improve children's health, but participation isn't great. Reports





Lucia Leone



indicate that as few as 73% of infants, 38% of children and 67% of pregnant and postpartum women eligible for WIC take part.

“Poor shopping experiences can lead people to drop off WIC or not re-enroll because they feel like the time and frustration isn’t worth it. This leaves them without a benefit that we know improves children’s health,” says Lucia Leone, PhD, the study’s lead author and an SPHHP associate professor of community health and health behavior.

### Strategies for improved experience

Researchers identified several barriers to WIC shopping, including restrictions on eligible foods, confusion at checkout when cashiers are not well trained, product availability issues especially during the COVID-19 pandemic, and more.

For the study, researchers in 2015 conducted eight focus groups involving 63 women in Erie and Niagara counties in New York. Participants described the challenges

associated with WIC and talked about strategies that can help.

One such strategy is “shelf-talkers” or special signs that denote WIC-eligible products, making them easier to find and alleviating confusion at checkout. New York State regulations, however, don’t allow most stores to use shelf-talkers, nor can retailers offer WIC-only sections. Well-trained staff, especially cashiers and store managers, also improve shopping trips by cutting down on the amount of time in a check-out line. Other mentioned strategies included having a WIC product guide available in the store and allowing WIC shoppers to use self-checkout.

### Partners to improve WIC shopping

No research is currently available on the role of retailers in improving WIC redemption or retention rates. That’s why Leone and her team are piloting a project with Tops Markets on Niagara Street in Buffalo.

“The goal of this project is to make it easier to use WIC products by

sharing recipes made with mostly WIC products,” Leone says. “More importantly, all those items will be ‘bundled’ together in the store so families can quickly go in and find all the WIC items they need for the recipe in one place rather than searching around the store.”

Customers won’t have to purchase all the products, but, Leone notes, they tend to purchase bundled items because of their perceived convenience. Some items in the recipe bundle will also be on sale.

Co-authors on the paper include Lindsey Haynes-Maslow, PhD, assistant professor of agricultural and human sciences at North Carolina State University; Christina Kasprzak, SPHHP doctoral student in community health and health behavior; Samina Raja, PhD, professor of urban and regional planning in UB’s School of Architecture and Planning; and Leonard H. Epstein, PhD, SUNY Distinguished Professor in pediatrics in UB’s Jacobs School of Medicine and Biomedical Sciences. 

## New Research Looks at Children's Health During COVID-19 and More

Kasia Kordas, PhD, associate professor in the Department of Epidemiology and Environmental Health has published "COVID-19 and children's health in the United States: Consideration of physical and social environments during the pandemic" in the journal "Environmental Research." Kordas and her co-authors note that public health measures combatting the COVID-19 pandemic resulted in dramatic physical- and social-environment changes in children. Their article discusses pandemic-related threats to children's health, such as environmental contaminants, changes in access to food and education, changes in social environments and more. Ultimately the authors recommend that, to protect child health, current and future pandemic policy decisions should take into consideration pandemic-related changes in these many environments.



Kasia Kordas



Katia Noyes

An article on which Katia Noyes, professor in the Department of Epidemiology and Environmental Health, is a senior author, was featured in What's New and Interesting in The Annals of Surgery on the journal's website. This special section gives attention to work the journal's editors believe will be important to readers based on the clinical and social impact that the work may have on the profession. Noyes' and her co-authors looked at results for patients who undergo robot-assisted surgery to remove their gall bladders in their article "The Early (2009–2017) Experience with Robot-Assisted Cholecystectomy in New York State." They concluded that, while patients who have such surgery have higher rates of complications, several strategies (for instance, using new safe cholecystectomy techniques) might improve patient outcomes.

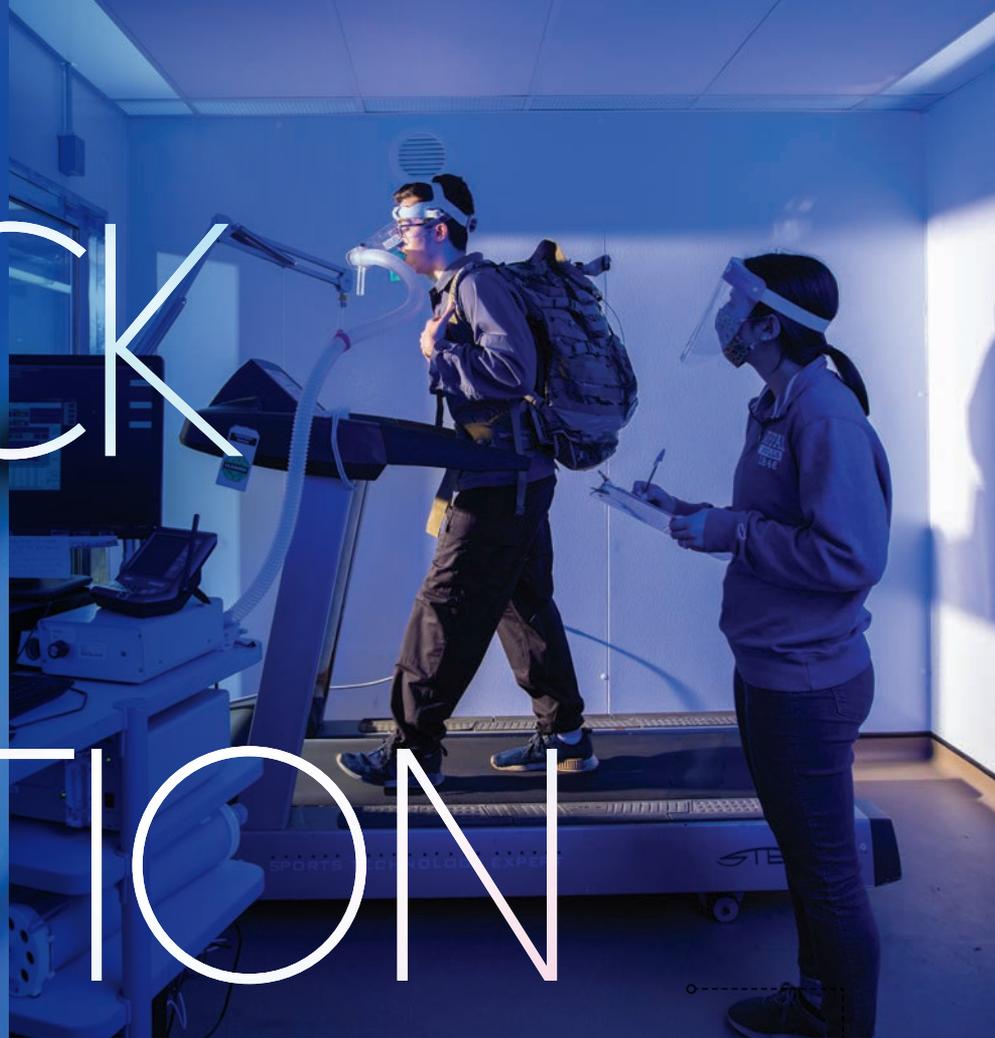
Epidemiology PhD candidate Sarah Quinones is first author on "Disability status and multi-dimensional personal well-being among adolescents in the Southern Highlands Region of Tanzania: results of a cross-sectional study," published in BMJ Open. The study, conducted with Quinones' advisor Assistant Professor Tia Palermo, PhD, highlights areas where adolescents with disabilities continue to fall behind in areas of their personal well-being—such as schooling, livelihoods, health, violence and psychosocial well-being—compared with their peers. The authors suggest that social programs and policies aiming to improve adolescent well-being and mental health, and prevent violence, might need to focus particularly on people with disabilities through strategies like training program managers so that they can more effectively include people with disabilities.



Sarah Quinones



# BACK IN ACTION



## *In the labs*

at the School of Public Health and Health Professions, researchers and students in the school's range of disciplines investigate ways to improve people's health. Many of the tools they employ are highly specialized and available in few other peer schools. Some conduct their work in settings that are not limited by an actual facility at all. In all cases, the learning and findings that result are building knowledge about and offering solutions to some of today's most pressing health issues.

Among the disruptions to daily life driven by the pandemic, a number of SPHHP labs shut down for months due to state-mandated pandemic restrictions and precautions for researcher and participant health. But as the United States re-emerges from shutdowns and restrictions ease, SPHHP's labs have come back on line as well, with prudent safety measures still in place. The photos on the following pages give a glimpse into some of SPHHP's many labs back in action.

*Photos by Douglas Levere, except for the Community Health Interventions Lab team photo by Nancy J. Parisi.*



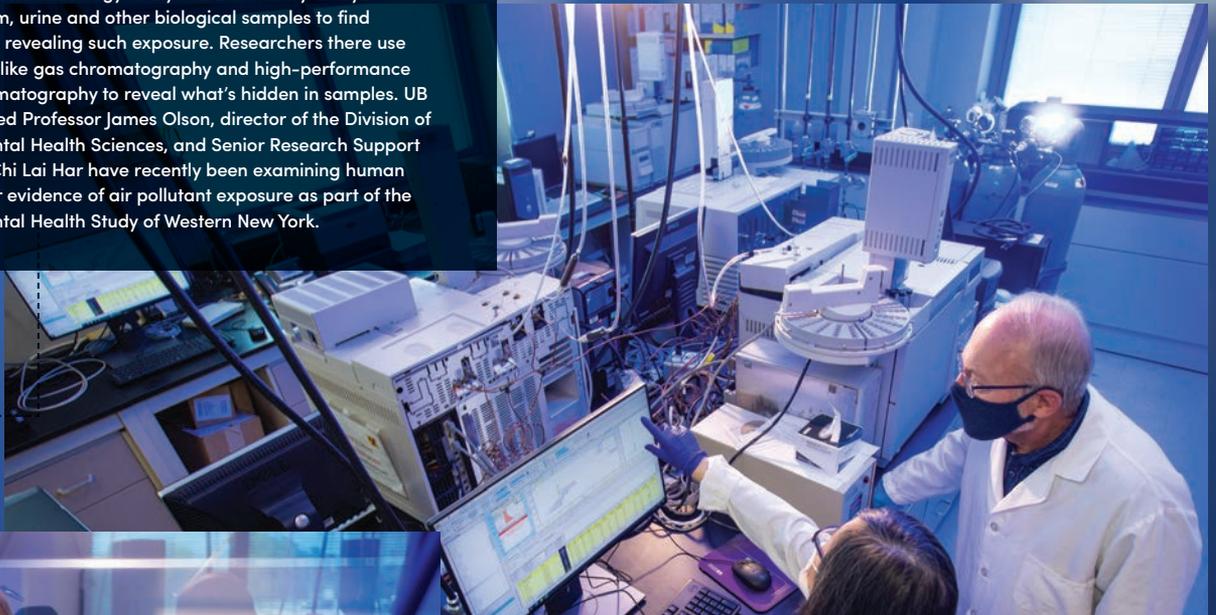
*The Center for Research and Education in Special Environments researchers look at how bodies react in extreme heat, cold, altitude and more. They're searching for ways to help firefighters, divers and others work more effectively and safely in such environments. Pictured, above: Exercise science major Harrison Courtney uses a treadmill in the center's environmental chamber, which can simulate hot, cold, humid or dry conditions. Exercise and Nutrition Sciences PhD candidate Courtney Wheelock observes. Pictured, left: Jocelyn Stooks, MPH, ENS senior research support specialist, adjusts the stationary bike in the center's hyper/hypobaric chamber, which can simulate environments with very high or low air pressure.*

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*Many people in the United States have a tough time finding and buying healthy foods.* The Community Health Interventions Lab works in communities on projects making nutritious food more accessible. Lab Veggie Van, for instance, helps set up mobile produce markets that get fresh, healthy and affordable food into communities that need it. *Pictured, left to right:* At a local farmer's market are some of the lab's team: Jessica Burke, MPH student; Alicia Claudio, MPH student; Jill Tirabassi, physician researcher, Jacobs School of Medicine & Biomedical Sciences; and Christina Kasprzak, Community Health and Health Behavior PhD candidate.

*Exposure to environmental contaminants like mercury or benzene can increase the risk of many diseases.* The Toxicology Analytical Laboratory analyzes blood serum, urine and other biological samples to find biomarkers revealing such exposure. Researchers there use techniques like gas chromatography and high-performance liquid chromatography to reveal what's hidden in samples. UB Distinguished Professor James Olson, director of the Division of Environmental Health Sciences, and Senior Research Support Specialist Chi Lai Har have recently been examining human samples for evidence of air pollutant exposure as part of the Environmental Health Study of Western New York.





*The 35-year-old Women's Health Initiative has made major discoveries about chronic diseases affecting postmenopausal women and offers strategies for how women can stay healthy as they age.* Today, WHI researchers are determining if dental bone loss points to more general bone loss and, if so, whether dentists' offices can be important places to identify women at risk for osteoporosis and other types of bone loss. *Pictured clockwise from top left:* Public health undergraduate student Victoria Kirby organizes WHI participant files; Theresa Zulawski positions Project Staff Associate Doreen Sheedy for a dental x-ray; Research Support Specialist Donna Fry takes a baseline blood pressure reading.

*Keeping 700,000 samples from study participants organized and safe is the purview of SPHHP's Biological Specimen Bank.* That means storing samples from around 20,000 people who are part of epidemiological studies and clinical trials at the university. Among other tools and equipment, the Bio Bank boasts -80°C freezers, cryogenic containers, liquid nitrogen, and a complex, secure computerized mapping system. In this photo, Instructional Support Associate Robin Baumeister pulls samples from a freezer for use in a new research project.



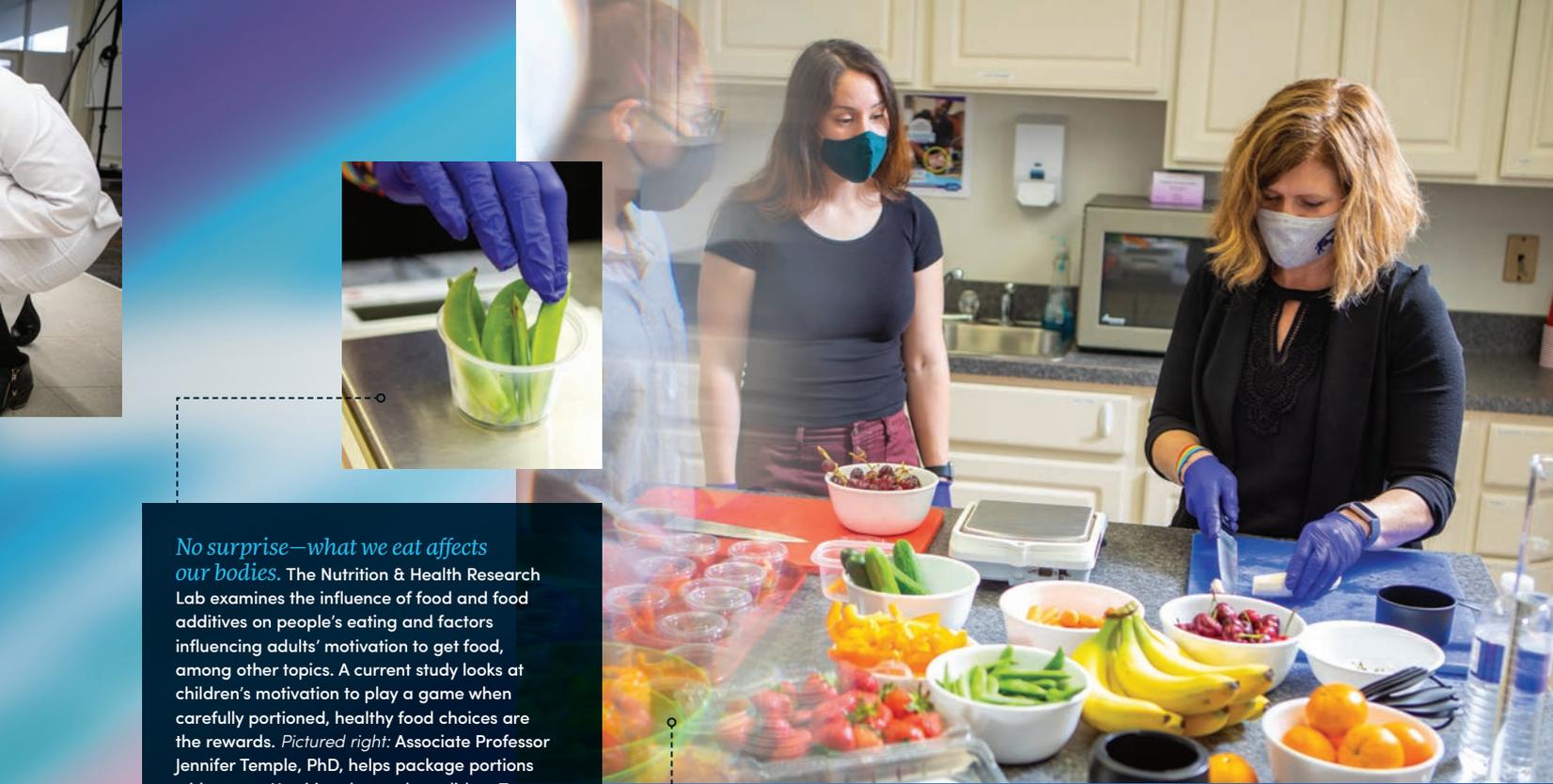
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*The Gait Analysis Lab works with people whose movements have been impaired by stroke or other injuries and illnesses.* Researchers there study how the human body moves through space as they look for ways that rehabilitation therapies can help people regain their ability to walk, maintain balance and more. Sue Ann Sisto, chair of the Department of Rehabilitation Science (top photo, right), works with recent graduate Steffy Rodrigues (top photo, left) using a 3-D motion capture system and wireless electromyography sensors to detect muscle activation in study participants.



*“Disorders of consciousness,” like coma, and traumatic brain injuries can wreak devastation on patients—and are the purview of the Brain Function and Recovery Lab.* A current study—the first involving children—is assessing how participants recover from concussion, which can help them avoid future injuries. Public health undergraduate student Isaac Asante (pictured, right) helps Associate Professor Ghazala Saleem (pictured, left) calibrate the lab’s computerized dynamic posturography equipment, which assesses people’s senses of vision, balance and proprioception, or the ability to judge where one’s body is in space.



*No surprise—what we eat affects our bodies.* The Nutrition & Health Research Lab examines the influence of food and food additives on people's eating and factors influencing adults' motivation to get food, among other topics. A current study looks at children's motivation to play a game when carefully portioned, healthy food choices are the rewards. *Pictured right:* Associate Professor Jennifer Temple, PhD, helps package portions with (center) Nutrition doctoral candidate Tegan Mansouri and recent Nutrition program graduate Rachel Barich.

*How do brain injuries from trauma or occupational hazards like loud blasts damage nerve cells?*

The Brain Plasticity and Neurorehabilitation Lab investigates that question, with the current aim of developing rehabilitation approaches for veterans suffering from sensory impairment. Assistant Professor of Rehabilitation Science Vijaya Muthaiah, PT, PhD, readies Kathiravan Kaliyappan, postdoctoral researcher, in a rotary chair, which can measure aspects of the vestibular system regulating balance, posture and the body's orientation in space. Graduate student Alec Ventimiglia (*inset*) takes part in a hearing test.



# 2021 Step Challenge

#UBsteps21

## EVENTS

### Steppers Renew Connections and Boost Energy

More than 1,500 people joined the sixth annual Step Challenge this past spring, renewing connections with colleagues and friends as they emerged from the dual cocoons of winter and the pandemic. Faculty and staff, students, alumni and the greater UB community stepped on their own or with a team in a bid for prizes that included Bose Sport headsets, gift cards and a Theragun Mini Muscle Massager. The final step count for the 2021 Step Challenge: 333,916,861. Steppers also learned that you can find UB alumni in all 50 United States and 147 countries, as their total number of steps moved the group through a virtual map of places UB alumni live.

**Final winners were:**

- » **The Grand Prize** (one person randomly chosen from the top 15 steppers on the leaderboard): Eugenia Riollano
- » **Most Improved** (the stepper who made the greatest improvement in effort during the challenge): Carmon Koenigsknecht
- » **Top Teams** (three teams with the highest average steps/team member): Dog Walking—890,288 average steps; In It To Win It—798,381 average steps; Stormy Seas—731,809 average steps
- » **Step Superstars** (five randomly chosen steppers who met the activity goal they set in StepSense each day during the challenge): Marissa D’Antoni, Beth Faul, Theresa Stephan Hains, Kerri Lehmbek, Tonya Pulley

Guest speaker Dr. Thomas Russo advised new grads to learn the lessons of the current pandemic.



Emma Meore, master of science graduate in exercise science/athletic training, welcomes her peers to commencement.

### 2021 Commencement on a Sunny Afternoon

UB resumed in-person commencement this year, with the School of Public Health and Health Professions gathering on a sunshine-filled May 15. Some 250 doctoral, master’s level and bachelor’s level students, gathered under a massive tent on North Campus to receive their diplomas, hear words of encouragement from speakers Dr. Thomas Russo, professor and chief, Infectious Disease/Department of Medicine, Jacobs School of Medicine & Biomedical Sciences, and SUNY Distinguished Professor Gary Giovino, PhD ’87, and pose for post-conferral photos with a professional photographer.

All told, SPHP awarded—in person and virtually—56 doctoral degrees, 168 master’s degrees and 213 undergraduate degrees at the ceremony. While state mandates for masking and distancing meant a different kind of celebration, new graduates and their guests filled the atmosphere with excitement, happiness and satisfaction with a job well done. ○-----○



# Answering Pressing Medical Questions with Data

Meet Biostatistics Professor Jihnhee Yu, who wants data to aid diagnosis and treatment options



Jihnhee Yu

## Why did you choose biostatistics for a career?

I have been intrigued by challenging subjects in general. Statistics at first sounded great and sufficiently esoteric to trigger my curiosity for that discipline. My undergraduate major was mathematics, which definitely motivated me to study statistics. Also, statistics is a practical discipline, thus with more job opportunities. That combination was perfect.

## What areas of inquiry do you focus on?

Medical applications and providing some answers to medical questions are my major interests all the time. Recently my research is more related to survey data, big data and some image data analysis.

## What is some of the most meaningful work you have done?

As one of my major methodological works, I have worked on nonparametric statistical inference areas, especially the development of empirical likelihood (EL) methodology, a subject of great importance in the current statistical/biostatistical literature. As an outcome of this aspect of my work, my colleague Dr. [Albert] Vexler [SPHHP professor of biostatistics] and I published a book, "Empirical Likelihood Methods in Biomedicine and Health" [CRC Press, Taylor & Francis, 2018], which I consider a wonderful accomplishment.

## Why is biostatistics an important discipline?

To my understanding, biostatistics or statistics is the discipline of data, which provides people with data-driven information to understand what's happening in the world. There is a question, and statistics/biostatistics uses the data to answer the question. There are two types of problems in this world in terms of data. One is too little data, and the other is too much data. Statistics/biostatistics deal with both problems.

From an education point of view, the statistical thought process is extremely important these days. It consists of establishing a hypothesis, measuring certainty or uncertainty given existing or fairly collected data, and testing the hypothesis. Then we abolish the hypothesis

or modify it, where we can still commit two types of errors: one is that the data used may be insufficient or incorrectly collected, and the other is that our model to derive information is wrong. In that regard, statisticians tend to be skeptics since they start all things with questions, which is like other scientific disciplines and which I consider a good trait of serious researchers.

## How did you end up at UB?

I used to work at Roswell Park Cancer Institute [now Roswell Park Comprehensive Cancer Center] as a biostatistician, and I had a voluntary faculty position at UB. A tight relationship between the Biostatistics departments of Roswell Park and UB gave me an opportunity to join UB. That worked out great since, after working and training in a real medical field, I could be more ready for research work that may have a greater practical flavor versus simply being a theoretical exercise.

## What do you think the next step in your career will be?

As a biostatistician, I will continue to explore clinical data and hopefully can impact the medical area, especially its diagnosis and choice of treatment options. In particular, there are different forms of the data where the valuable information may not be extracted from each variable stored in the form of two-dimensional Excel files.

Image data is a good example, where individual voxels [an element of volume in a 3-D space] means nothing; those voxels need to be connected to one another to produce meaningful interpretation. I believe that the best instrument for that job is a human brain. Can the data process emulate the steps that are happening inside our brain all the time? What might be an efficient form of data processing that can transform such data to something more traditional that may be stored in a two-dimensional Excel sheet? These questions are actually recent trends related to data mining and machine learning. I hope that I can contribute to these areas as they are as intriguing as it gets. o-----o

# Biostatistics Professor Markatou Selected as Institute Fellow

Professor of Biostatistics Marianthi Markatou has been named Fellow of the Institute of Mathematical Statistics (IMS). Markatou received the award for, according to the IMS, “outstanding accomplishments on fundamental research in robust statistics and for a strong commitment to the advancement of statistical science through interdisciplinary research and professional service.” Markatou also holds an appointment in the Jacobs School of Medicine and Biomedical Sciences and is assistant director of the Institute for Healthcare Informatics.

The Institute of Mathematical Statistics is an international scholarly and professional society that fosters the development and dissemination of the theory and applications of statistics and probability. The designation of IMS Fellow has been a significant honor for over 85 years. Each fellow has demonstrated distinction in research in statistics or probability or has demonstrated leadership that has profoundly influenced the field. Candidates for the IMS Fellowship are nominated by three other IMS Fellows. Each fellow nominee is assessed by a committee of their peers for the award. In 2021, after reviewing 75 nominations, the IMS selected 41 fellows.

“This honor recognizes, among other accomplishments, Dr. Markatou’s contributions in the area of data science,” said Gregory Wilding, PhD, chair of the Department of Biostatistics, School of

Public Health and Health Professions. “She is an acknowledged expert with a distinguished body of work that has advanced the field.” Data science combines multiple fields, including statistics, scientific methods, and data analysis, to extract usable, tangible value from data.

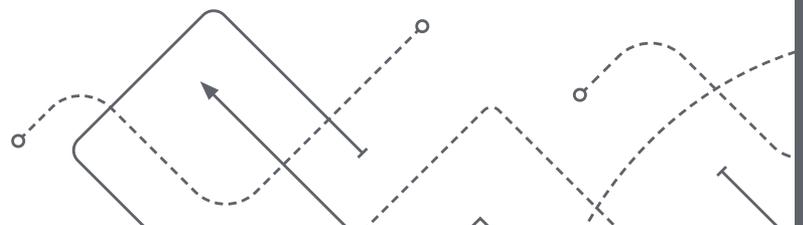
In considering new fellows, the IMS looks closely at candidates’ entire research portfolio, which in Markatou’s case emphasizes statistical and interdisciplinary research. According to Markatou, her interdisciplinary interests “connect the areas of biomedical informatics (clinical, public health and translational) and computer science (machine learning, artificial intelligence) with fundamental statistical concepts and develop tools that enable discovery in both statistical sciences and the subject-matter areas that use them.”

During her career, she has intentionally acquired experience in interdisciplinary research, with her significant results and impact validated by associated awards, accumulated knowledge and ongoing work in academia, government and industry. Markatou’s disciplinary research endeavors have led to fundamental contributions to statistical science (statistics and biostatistics) and applicable research into problems in the field.

Created in 1935, the IMS has 3,500 active members throughout the world. Approximately 15% of the current IMS membership has earned the status of fellowship. ○-----○



Marianthi Markatou



# Faculty, Staff Recognized for Expertise

**Mary Glenn**, assistant dean for community engagement, has been elected to the board of directors of the New York State Public Health Association (NYSPHA). Her term will run for three years. NYSPHA promotes and protects the public's health in New York State through professional development, networking, advocacy and education. The organization specifically advocates for policies at the national, state, and regional levels that support equity in health status and an end to health disparities for all New Yorkers. As a board member, Glenn will help NYSPHA continue to grow and increase its state-wide impact.



**Kasia Kordas, PhD**, associate professor of epidemiology and environmental health, was selected to the Research Committee of the Consortium of Universities for Global Health (CUGH), a role she will hold for two years. CUGH is a Washington, DC-based organization of more than 170 academic institutions and other organizations from around the world engaged in addressing global health challenges. CUGH supports academic institutions and partners to improve the wellbeing of people and the planet through education, research, service and advocacy. The Research Committee's goal is to carve out avenues for expanding collaborative global health research and research training. It is dedicated to sharing, evaluating and advancing strategies that promote global health research.



**Ryan Krzyzanowicz, DAT, LAT, ATC**, director of the Athletic Training program, was named to the National Athletic Trainers' Association (NATA) Public Health Taskforce. NATA is the professional membership association for certified athletic trainers and others who support the athletic training profession, representing, engaging and fostering the growth and development of the profession and athletic trainers as unique health care providers. The organization's Public Health Taskforce is made up of 10 people who hold three-year appointments. Among other goals, the taskforce aims to embed public health concepts and terminology throughout athletic training curricula and establish formal strategic public health partnerships and deepen those that exist.



**Katia Noyes, PhD, MPH**, professor and director, Division of Health Services Policy and Practice, was selected as a member of the New York State Cancer Consortium Steering Committee. The New York State Cancer Consortium is a voluntary network of more than 200 people and organizations that collaborate to address the cancer burden in New York State. Members are from the public and private sectors and have missions aligned with reducing cancer incidence and mortality. The organization's Steering Committee meets throughout the year to review consortium updates and plan upcoming meetings and events.



**Patricia Ohtake, PhD, PT**, vice president for interprofessional education (IPE), was elected as a 2021 honorary inductee by Gamma Lambda, SPHHP's chapter of the Delta Omega Public Health Honorary Society, the only non public health-trained inductee in Gamma Lambda's history.



Ohtake, who is also an associate professor in physical therapy, was recognized for her work in IPE and commitment to public health. Her advanced interprofessional education and collaborative practice in the field has spearheaded efforts to integrate interprofessional collaborative practice into public health education and practice, and integrated public health principles into IPCP training of UB health professions students. Members of the society—public health students, alumni and faculty—are inducted based on their commitment, leadership ability, and demonstrated excellence in public health education, research or service. Honorary members have made extraordinary contributions to the field; chapters can induct no more than one honorary member each year.

**Sue Ann Sisto, PhD**, chair of the Department of Rehabilitation Science, was selected as the recipient of the 2021 American Congress of Rehabilitation Medicine (ACRM) Distinguished Member Award. With more than 3,000 members in some 65 countries, ACRM works to improve the lives of disabled people, collaborating with hospitals, universities, professional



Continued on next page >>>

and advocacy organizations, and rehabilitation professionals worldwide. The Distinguished Member Award was established in 1988 to honor those who have significantly contributed to the development and functioning of ACRM, demonstrated evidence of leadership skills, organizational abilities, and public service.

**John Violanti, PhD**, research professor, Department of Epidemiology and Environmental Health, won the Alice Hamilton Award for Occupational Safety and Health in the Behavioral and Social Science category from the National Institute for Occupational Safety and Health (NIOSH)/Centers for Disease Control and Prevention. The award recognizes the scientific excellence of NIOSH technical and instructional materials.



Violanti and his co-investigators won the award for their research study “Occupational injury and psychological distress among U.S. workers: the National Health Interview Survey, 2004–2016,” published in 2020. NIOSH is a research agency focused on the study of worker safety and health, and empowering employers and workers to create safe and healthy workplaces. The Hamilton Award is one of the organization’s Science and Service Awards, presented annually to recognize significant accomplishments in research, partnership, research translation, career achievements, and service at NIOSH.

# High-schoolers on Pathway to Public Health Careers

“I learned that there’s more to public health than what you may think...that if you like making a difference in someone else’s life, public health is something you should definitely look into.”

Public Health Pathways Academy student survey comment

With the need for professionals in public health and health professions more urgent than ever, a program at UB aims to capture the imaginations, early on, of people who might one day join the field--and make it more diverse.

Public Health Pathways Academy is an effort among UB’s School of Public Health and Health Professions, Erie Niagara Area Health Education Center (AHEC), and HOPE Buffalo/CAI. The course is designed to introduce 10th and 11th graders to the world of public health and to their career options in the field. Its most important goal: To improve diversity among students seeking careers in public health and the health professions through admission to UB.

Clinical Assistant Professor of Community Health and Health Behavior Adam Graczyk, PhD, oversees the course: “Even some of our incoming freshmen haven’t been exposed to what public health is, so Pathways gives students a starting point—what public health is, how broad it is. We also wanted them to establish a connection to UB.”



Adam Graczyk

A final-project photo taken by a Pathways to Public Health student, illustrating a health issue in their community.



Featuring lectures and demonstrations by faculty and public health organizations; group activities; and student-led presentations, the course awards students one college credit. This year's group of 14 future public-health pros came from Buffalo, Lackawanna and Niagara Falls public high schools. All were members of underrepresented minorities or those who would be the first in their family to attend college.

### Pathway to college credit

The genesis of Pathways was a public health summer camp that SPHHP and AHEC formerly offered. SPHHP posited the idea of making the learning more rigorous and offering the college credit. AHEC bit, and Pathways was born.

During the seven weeks of the course, students learned about epidemiology, health disparities, disease prevention, exercise science, nutrition and other disciplines. They also got information about preparing for college, like how to create personal statements and common questions on college applications.

Mining his background in improv, Graczyk involved students each class session in activities to set the tone at the start of the day and boost energy at the end of the day.

The activities "help establish a welcoming, open environment," Graczyk explains. "In improv, there's no such thing as failing, and I try to bring that into the classroom."

In their post-course survey responses, students said they greatly valued hearing from various guest speakers that visited Pathways virtually. Those included SPHHP health professions and public health faculty; current SPHHP students and alumni; and staff from Erie County Department of Health on Narcan training, Hope Buffalo speakers on sex education, and UB on how to apply, financial aid and other admissions topics.

### Solving community problems

The final day of the course featured—what else?—final projects. Students took a photo in their community that illustrated a public health problem, then did research and talked about the issues, ultimately offering their ideas for public health interventions that could solve the problem. They also connected with SPHHP Student Ambassadors, who served as mentors on the projects.

"The final project really gave students a personal connection to an issue and to their community," said Graczyk.

Brittany Mitchell, LMSW, Erie Niagara AHEC program manager, agreed. "The Public Health Pathways Academy was an amazing opportunity for high school students to gain exposure to the field of public health, and the impact it has on the communities they live in. Because of this program, these students are better equipped to address public health concerns within their own communities, as well as to take that knowledge and share with their friends and loved ones," Mitchell said. "We look forward to continuing this partnership and creating more public health advocates in the Buffalo community."

Among the hoped-for outcomes for Pathways participants are their greater knowledge of public health topics and future acceptance in college and health-related programs. Course survey results showed that some of those outcomes seem very likely.

"I feel like every aspect of the program helped me... I wasn't sure how I would fit into the medical field and public health. I came in not knowing much... [but] they touched on so many different topics that you can choose from if you were to be in public health. It all played a huge part in my thinking for the future."

Public Health Pathways Academy student survey comment

## Joining Public Health's Stage Crew: Mikayla Thompson



Maybe the handwriting was on the wall when, at a young age, Mikayla Thompson told her father that she wanted to work for the Peace Corps or cure cancer. Today, her drive to help people on a global scale is being channeled to the discipline of public health.

Interestingly, Thompson's father worked at UB, so she "grew up on campus. We used to go to all the UB basketball games, and I remember looking at the student section and how excited they were. I decided this is where I want to be."

Thompson just received her master of public health degree via SPHHP's 3+2 program, which offers bachelor's and MPH degrees in five years. When she began at UB, she was part of the Honors College and was in the pre-nursing program. The change came in 2018, when Thompson took part in a study abroad experience in Jamaica. Having already completed a number of clinical hours, she could readily see the difference in the U.S. and Jamaican health care systems.

"In our country, we live in a reactive healthcare system," she said. "But lots of problems are preventable, and I realized I'd rather prevent problems." Her time in Jamaica "made me realize public health was what I wanted to do." One of the professors on the trip mentioned the public health program; Mikayla found the 3+2 program and switched majors when she returned to UB.

Studying abroad was a "pivotal moment," Thompson explained. "It changed my perspective on what I wanted to do and how feasible it was. I was so excited to get the BS-MPH acceptance notice that I printed it out, so it was the first thing my parents saw when they walked in the door."

### Wide-ranging interests

Her public health pursuits are wide ranging. The Environmental Health Study of Western New York, which is led by SPHHP researchers, piqued Thompson's interest in environmental health. She was also involved in a UNICEF study on reproductive health, another focus area.

Thompson found the environment in the MPH program interactive and accommodating in the extreme, which supported her diverse interests: "The professors are phenomenal—they make sure you're learning what you want to learn and are open to your answering questions," Thompson said. "Kim Krytus [assistant dean and director of SPHHP's MPH program] never considered any idea too out there. I wanted to do two internships, and she said I could. My concentration is health administration services, but I wanted to go into health policy. My advisor, Professor Katia Noyes, allowed me to take courses in that. She ensured I could get those skills."

"I like that you can address so many different areas. Public health is like stage crew in a play—you don't see them, but you need them," she said.

Thompson's internships give a flavor of her diverse public health interests. She took part (remotely) in MD Anderson Cancer Center's cancer prevention research training program, which matches mentors and mentees. She also participated in the Center for Disease Control and Prevention's public health law program as an education/communications intern, where she got additional experience with topics around cancer and global health.

### Public health power

Thompson believes part of the power of public health is in addressing different sides of problems, from examining root causes to helping provide solutions.

"Public health has the ability to address big problems and to affect people throughout their life span. Seat belts, vaccination, fluoridation—those are all public health interventions," she said.

Perhaps her ability to delve into the full spectrum of her interests at UB has sharpened Thompson's public health worldview: "Our system isn't sustainable. We have the highest spending and the worst health outcomes. That has to shift, so what will we do to address it? As we hopefully grow in our perspective of trying to prevent problems, public health will be there." 

## ALUMNI IN FOCUS

# SPHHP Alumni Recognized with Achievement Awards

On June 3 during a virtual livestream ceremony, the UB Alumni Association recognized 18 outstanding alumni for their achievements and for bringing distinction to UB. The School of Public Health and Health Professions boasted two awardees who have made names for themselves in their chosen fields.

**Philip Smith, PhD '13, MS '13, MS '09**, received the George W. Thorn Award, given to UB alumni under 40 who have made outstanding contributions to their career fields or academic areas. Smith is a tenure-track assistant professor in Miami University's Department of Kinesiology and Health. After completing his doctorate at UB, Smith became a postdoctoral fellow at Yale University's School of Public Health, where he conducted research about gender differences in tobacco use and comorbidity between substance use and mental illness. As associate research scientist at Yale's School of Medicine, he examined women's health and addictive behaviors. He was then hired as an assistant professor for CUNY School of Medicine's Department of Community Health and Social Medicine.

Smith's efforts have garnered him various research awards, more than 50 authored or co-authored publications, four professional memberships and five awards for his work—including an award for excellence in teaching. He also serves as an associate editor on the Editorial Board for "Nicotine and Tobacco Research." His current research addresses



health inequities resulting from tobacco use and the health risks of vaping and youth vaping. He also has overseen research grant budgets totaling over \$1 million, and his research publications have been cited more than 2,000 times.

During the COVID-19 pandemic, Smith has received recognition for developing innovative public health strategies for keeping the Miami University community safe. He has served as a COVID-19 resource locally and internationally through numerous media outlets.

**Brian O'Connor, MS '91, BS '87**, received SPHHP's Distinguished Alumni Award, given in recognition of exceptional career accomplishments, community or university service, and research and scholarly activity. O'Connor is UB's assistant vice president for data analytics. He has led the university in translating large volumes of raw data into actionable intelligence, transforming data into information and effectively communicating that intelligence to help drive better decision-making. His work has supported strategic and continuous growth across the university. O'Connor also has gained national recognition of his professional achievements and expertise, receiving numerous requests to present and consult across the country. As an exercise science alumnus, he maintains a vital connection to SPHHP, whose faculty and staff value his collegiality and support as they strive to improve health.



## Exercise Science Alumnus Conditioned for Growth

Long Island native Kevin Phengthavone graduated with bachelor's and master's degrees in exercise science from UB in 2013 and 2015, respectively. Today, he works at Impact Sports Performance, a facility for private sports conditioning that's part of the UBMD medical practice. He also has a great alumni relationship with SPHHP, taking part in panel discussions for students and in the new pilot mentorship program for students from diverse backgrounds.

### How's your career going?

At Impact, we primarily train sport teams like the Buffalo Bandits [Western New York's professional lacrosse team], Canisius College's men's hockey team and teams in the Buffalo Junior Sabres organization. We work with private clients, too. I love this job because I work in the professional and collegiate setting, but I also get a chance to work with other local athletes privately on strength and conditioning. Professional and collegiate strength and conditioning involves developing annual programs or developing long-term development plans for athletes. The difference in the private sector is the timeline you might work on with people and their developmental goals. It could be for one... three...six months depending on their personal goals. Working with UBMD is different compared to other private strength and conditioning facilities because we get to collaborate with physical therapists, team doctors, and others. That's a big positive in terms of professional development and quality of service.

### Why did you decide to get an exercise science degree?

I wanted to go to school for science, and UB was one of my options. Biomedical science was my initial major—after about 18 months, I switched to exercise science because I wanted to learn more specifically about the body. I also played lacrosse for UB's club team where we did strength conditioning, and the coach affected me a lot as a person and made a big impact on my life. I wasn't the best athlete, but strength conditioning made a big impact on how I felt, how I was on the field, my mental state. It inspired me to become someone who can help people get better physically and mentally.

### What was studying at UB like?

It was very valuable in terms of the base knowledge I was given and challenged with. It's a university, and

you have to be self-driven to be successful. I was raised that way, so it was easier for me to adjust. What also helped was having experience in strength and conditioning. Once you can see the whole picture, learning the material is easier. My biggest challenge was the financial part of college. I was the first in my family to go away to college, so I had to learn fast on what it costs and how to fund my education. My most impactful class was Muscular Adaptions to Exercise, which went into research and different avenues for muscles to adapt. It was very discussion- and research-based, which always challenged us to think.

### What's your favorite memory of your time at UB?

When I played for the club lacrosse team, we went to nationals twice. We had joined a new conference that year and ended up winning the conference. We were the last seed. We flew in; half the team got there two hours before the game. We lost in the first round, but stayed for a week, sightseeing, climbing mountains, etc. If it weren't for UB and the Student Association, which helped fund our operations for the year, it probably wouldn't have happened.

### Why is exercise science an important field?

It can help develop young adults and athletes, helping them reach their potential and be better than they think they can be. I've seen so many people change their lives as a result. During the year, I might see about 300 or 400 athletes each week, so I have a big opportunity to help athletes grow. You can change your own path based on the work you put in. For instance, I've worked with two of the Buffalo Bandits for a long time. They wanted to learn longevity—how they could make their career



Kevin Phengthavone

longer by training correctly. People think strength conditioning is 100% all the time, but to manage and maintain strength, you have to “wave your training.” I helped them learn how to train smart, periodize their training, and do things to maintain mobility instead of always thinking about explosive strength.

### What is most meaningful to you about your career?

I’m looking to give back what my coach gave to me, but the one thing that keeps me driving is building a family in Buffalo. I love strength conditioning, and my family is what I cherish the most. The field is very competitive, so I’ve always looked for stability with my profession. I’ve found that with my job.

For the future, I’d like to do what I’m doing right now with a schedule that works for me. During the pandemic, we were closed for a time, and I spent a lot of time networking and taking professional development classes. It was a good opportunity to reflect on who you are and what you’re doing.

### Why should someone major in exercise science?

If you really want to know about the human body and help people achieve what they want, it’s a good major. I talk to a lot of young kids about this—and this is true for many degrees and anything you pursue—college gives you a base knowledge of a lot of things, and it’s up to the person to take themselves where they want to go. It’s truly what you desire and how hard you work to get where you want to be.

### What would you like students in the program to know?

Be humble and always seek questions about anything. Don’t be afraid to ask for help. Stay curious. The world of knowledge is always bigger than what you think. When I learn something, it always leads to two things I don’t know.

Phengthavone has developed an internship program at Impact Sports Performance for graduate and senior exercise science students, focusing on strength conditioning, physiology and helping young adults to self-evaluate and become forever learners. Contact him at [kphength@buffalo.edu](mailto:kphength@buffalo.edu) for more information. 

Do we have your  
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