

Health Impact

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

Winter 2024



30 Years and Counting:

The Women's Health Initiative Improves Lives and Grows Researchers

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Also:
SPHHP Fully Accredited
for Seven More Years. Page 3

FROM THE DEAN



I am thrilled to share with you some exciting news highlighted in this issue of *Health Impact* magazine. As we continue to champion excellence and innovation in public health, I am delighted to announce two major newsworthy events our community has recently marked.

First, I am proud to share that the School of Public Health and Health Professions has achieved a significant milestone in its journey toward excellence. Our school has been reaccredited by the Council on Education in Public Health, receiving a perfect score in recognition of our unwavering commitment to academic rigor, research excellence, and community engagement. This accomplishment underscores the dedication and hard work of our faculty, staff, and students in advancing the mission and vision of SPHHP.

Second, I'd like to recognize a milestone for the Women's Health Initiative, housed within SPHHP. This pioneering initiative has reached a remarkable milestone of 30 years since its inception. The Women's Health Initiative's groundbreaking longitudinal study of post-menopausal women's health has transformed our understanding of preventive health measures and has had a profound impact on public health policy and practice.

These achievements not only reflect the tireless dedication and expertise of our faculty and staff but also highlight the collective strength and commitment of our entire SPHHP community. As we look ahead to the future, I am confident that these milestones will inspire us to continue pushing the boundaries of knowledge and innovation in public health.

I encourage each of you to explore this news and more in *Health Impact*. Together, let us celebrate our achievements and reaffirm our shared commitment to advancing the health and well-being of individuals and communities worldwide.

Jean Wactawski-Wende, PhD
Dean and SUNY Distinguished Professor

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SPHHP Reaccredited for Another Seven Years



The School of Public Health and Health Professions has been reaccredited by the Council on Education for Public Health (CEPH) for the next seven years, the longest term possible.

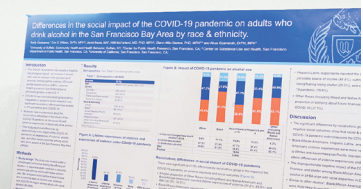
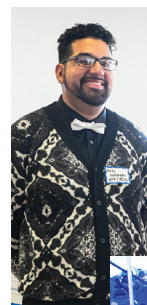
CEPH, the accreditor for public health schools and colleges, late in 2023 informed SPHHP that it had fully met all 44 criteria for reaccreditation.

“Fully meeting all CEPH’s criteria is an exceptional and uncommon result,” says Jean Wactawski-Wende, SPHHP dean and SUNY Distinguished Professor. “CEPH gave us the highest possible rating for each criterion.”

CEPH’s reaccreditation process is arduous; SPHHP prepared for it for several years, led by Kim Krytus, assistant dean and director of graduate public health programs. Prior to the site visit last February, SPHHP provided CEPH with a comprehensive, 286-page self-study that described how the school addresses public health standards for education set by CEPH, providing details about its programs, student services, goals, and many other facets of its program.

CEPH’s accreditors are seasoned public health educators and practitioners. In addition to reviewing the self-study, the team that reviewed SPHHP spent three days at UB, during which they spoke to faculty, staff, students, alumni and community partners about various aspects of the school’s public health programs.

“This stellar reaccreditation result is further verification that we provide outstanding educational programs to generations of public health and health professions leaders who, along with our valued partners, continuously impact health outcomes for individuals and populations across the world,” says Wactawski-Wende. ○-----○



Two First-of-Their-Kind Programs Launch at SPHHP

The School of Public Health and Health Professions has added a **Master of Science degree program in rehabilitation science**, the first such program in the State University of New York system. A key aim of the new community-based program is to give students an opportunity to engage in research that will have an impact on the surrounding community.



The Department of Rehabilitation Science designed the new program to provide a rigorous curriculum that creates a foundation for research and evidence-based practice in the rehabilitation health fields, including physical and occupational therapy.

"This program is an ideal way for students to prepare to enter a PhD program in rehabilitation science," said Clinical Associate Professor Sharon Ray, ScD, OTR/L, co-director of the Rehabilitation Science PhD program. "It's also appropriate for health professionals in our region because it offers them the chance to get a degree that can pave the way for career advancement."

The MS in Rehabilitation Science program focuses on building knowledge and skills in five important areas: research design and methods, statistics, research ethics, theories of rehabilitation science, and principles of disability and rehabilitation. It also offers three culminating experience options (thesis, project or exam) to accommodate students' specific goals.

When students graduate from the program, they'll be prepared to engage in research that ultimately has application in the real world. They can apply to PhD programs in rehabilitation science, many of which require a master's degree with research experience to apply, to develop further their roles as scientists, advanced practitioners, educators and leaders.

They also can advance their careers by gaining a master's degree.

In a bid to support a United Nations Sustainable Development Goal of achieving global health equity by 2030, UB launched a first-of-its kind **Master of Science in international development and global health**.

Jointly hosted by SPHHP and the School of Architecture and Planning, the program combines coursework as diverse as refugee health, the politics of water, epidemiology and infectious disease, the built environment and health, and environmental planning. The intensively interdisciplinary program is designed to address widening gaps in human health globally through the socioeconomic, environmental and geopolitical arenas of international development.

Emphasizing a model of collaborative learning, the program's field semester demonstrates the value of local knowledge in addressing global health inequity. Gauri Desai, PhD, clinical assistant professor of epidemiology and environmental health is co-director of the new program with Emmanuel Frimpong Boamah, PhD, associate professor and interim chair in urban planning in the School of Architecture and Planning.

"The MSIDGH field experience aims to connect the 'global' and 'local', and ranges from opportunities in Western New York to various countries around the world," said Desai.

The new program focuses on the legacies of colonial policies as enduring structural precursors of privilege and bias as barriers to global health equity. These themes are embedded in the curriculum and supported by lectures and visits from global practitioners, maintaining space for organic dialogue within each cohort. ○-----○



Hiring Initiative Growing SPHHP Research Capabilities

The last issue of *Health Impact* highlighted the historic hiring initiative that the University at Buffalo is undertaking, part of its effort to reinforce and further elevate its mission of groundbreaking research. The faculty and staff listed below are each contributing to that mission in all five SPHHP departments.



DEPARTMENT OF BIOSTATISTICS

Yi Xiong, PhD, assistant professor

Xiong's primary research interest lies in developing novel statistical approaches and tools to analyzing complex or large-scale data that arise in epidemiology, ecology, infectious disease studies and public health. She most recently was an assistant professor in the Department of Statistics at the University of Manitoba in Winnipeg. Xiong received a PhD in statistics and MS in statistics from Simon Fraser University, Burnaby, British Columbia.



DEPARTMENT OF COMMUNITY HEALTH AND HEALTH BEHAVIOR

Alison M. Haney, PhD, assistant professor

The focus of Haney's research is measuring clinically meaningful health behaviors in daily life across diverse groups of people and environmental contexts, examining affective and behavioral consequences of alcohol use, such as alcohol-impaired driving, and how these associations can be influenced through the use of mobile technology interventions by employing a number of different techniques.

Among the honors Haney has received is the Research Society on Alcoholism Junior Investigator Award. She received her PhD in clinical psychology from Purdue University and was a postdoctoral fellow at University of Missouri.



Brandon Kuhn, MS, research support administrator

Kuhn focuses primarily on the planning, execution and reporting of the Department of Community Health and Health Behavior's T32 NIAAA training grant in alcohol etiology and T52 HRSA training grant that involves educating the future public health workforce for students enrolled in SPHHP's MPH degree programs and Advanced Certificate in Public Health. He has extensive experience in education and small business ownership and received his MS in exercise science.



DEPARTMENT OF EPIDEMIOLOGY AND ENVIRONMENTAL HEALTH

Wanda Estinfort, PhD, postdoctoral associate

Estinfort works with Assistant Professor Denise Lillvis on research related to children and youth with special health care needs using quantitative methods to analyze large data sets. She most recently served as a research assistant at Taipei Medical University's School of Public Health, Taipei, and worked as a nurse specializing in cardio-pulmonary care in Port-Au-Prince, Haiti.

She received her PhD in public health and MS in global health and development from Taipei Medical University's School of Public Health, Taiwan.



Marina Oktapodas Feiler, PhD, assistant professor

Feiler's research interests are pediatric and maternal environmental exposures and their impact on maternal and child health with a focus on the developing immune system. She previously was a research assistant professor in the Department of Epidemiology and Biostatistics at Temple University's College of Public Health.

Feiler received her PhD in epidemiology at the University of Rochester, where she completed a postdoctoral fellowship funded by a National Institute of Environmental Health Sciences T32 training grant. She completed both her MS in epidemiology and BS in psychology at UB.



Yohane Phiri, PhD, postdoctoral associate

Phiri works with EEH Chair Pauline Mendola on research related to maternal-child health. His areas of interest also include environmental health, air pollution and applied epidemiology.

Phiri's most recent role was as a graduate research fellow at Taipei Medical University; he has published a number of peer-reviewed articles and conference papers. Phiri received an MS from Kocaeli University in environmental management and urbanization problems and his PhD from Taipei Medical University in public health.



Vrunda Soni, MPH, project staff associate, Women's Health Initiative

Soni focuses on budget, human resources and other related administrative duties for WHI and ancillary studies under the direction of SPHHP Dean Jean Wactawski-Wende. Vrunda comes from Toronto, Canada, where she previously worked as a business analyst with the Toronto-Dominion Bank. She received her MPH degree from the University of Sheffield, United Kingdom.



Mallory Ziegler, MA, research assistant

Ziegler will work on research studies with SPHHP Dean Jean Wactawski-Wende and Research Assistant Professor Hailey Banack. She recently graduated from UB with an MA in biological sciences. Her master's thesis project was accepted to the 2023 Association for Clinical and Translational Science Conference in Washington, D.C. While attending Binghamton University, Mallory volunteered with the Vestal Volunteer Emergency Squad and interned in United Health Services' Wilson Hospital Emergency Department and UHS Medical Oncology.



EXERCISE AND NUTRITION SCIENCES

Hayden Hess, PhD, assistant professor

Hess' research identifies and understands the implications of, and integrative physiological responses to, environmental stress in health and at-risk human populations. His work has merited several awards including the 2022 Gatorade Sports Science Institute Postdoctoral Award and the 2023 Adolfo M. Hernández Memorial Award for Outstanding Research by a Professional from the American College of Sports Medicine.

Hess completed an MS in kinesiology from Boise State University and a PhD in exercise and nutrition sciences from UB.



Johnathan Przybysz, MS, research support specialist

Przybysz formerly was an undergraduate project coordinator at SUNY Buffalo State, overseeing studies, recruiting participants and more. He holds an MS in nutrition science from UB and a bachelor's degree in psychology from SUNY Buffalo State.

REHABILITATION SCIENCE

Francisco Benavides Jaramillo, MD, research scientist

Benavides works in the lab of Assistant Professor of Rehabilitation Science Hang Jin Jo, PhD, focusing on motor control and transcranial magnetic stimulation. Benavides previously served as business development manager for JaliMedical, an equipment supplier for neuroscientists, clinical researchers and clinicians, and in several research scientist roles with The Miami Project to Cure Paralysis at the University of Miami's Miller School of Medicine.

He received his Doctor in Medicine and Surgery degree from the Universidad Central del Ecuador.



Cristian Cuadra, PhD, assistant professor

Cuadra's research interests include neurorehabilitation, movement disorders, neuromodulation and motor control. His long-term research goal is to advance rehabilitation strategies for lower and upper limb function by understanding how movement disorders originate from neuropathologies and musculoskeletal conditions across the lifespan.

Cuadra received his PhD in kinesiology from The Pennsylvania State University and an MS in statistics from the Pontificia Universidad Católica de Valparaíso, Chile.



Cheryl Lucas, EdD, LNHA, OTR, clinical associate professor and assistant director, Occupational Therapy program

Lucas is an occupational therapist and health care administrator with over 30 years of experience working with clients throughout the lifespan and nine years of experience in academia teaching full time. She most recently served as The American Occupational Therapy Association's professional development coordinator for the Academic Special Interest Section, and was the educational liaison for the Massachusetts Occupational Therapy Association.

She holds an EdD from Johnson and Wales University and an MS in occupational therapy from Boston University.



30 Years and Counting:

The Women's Health Initiative Improves Lives and Grows Researchers



The numbers don't lie. The Women's Health initiative (WHI), of which UB is the Northeast Regional Center, has been producing remarkable work related to post-menopausal women's health for 30 years. Some 400 ancillary WHI studies received additional funding over that time. More than 2,350 papers have been published based on WHI studies and findings. This longitudinal study focused on post-menopausal women's health initially enrolled a diverse group of more than 161,000 participants nationwide, including nearly 4,000 women from Western New York, who donated some 5.3 million vials of blood and other biospecimens.

The true significance of the work of WHI, however, isn't measured in numbers: It's measured in the ongoing influence on clinical practice, the greater focus on women's health, and, perhaps as importantly, on the careers of the scientists, researchers and students who have continuously mined WHI data for 30 years to gain new knowledge of what contributes to women's healthy, long lives.



A landmark study

The U.S. National Institutes of Health (NIH) initiated WHI in 1991 amid growing concerns about the lack of basic research into women's health and a specific concern about the risks and benefits of using hormone therapy. WHI's aims from the start were to address post-menopausal women's health issues and offer insights into ways to prevent conditions like heart disease, breast and colorectal cancer, and osteoporosis.

Among the 16 "vanguard clinical centers" across the U.S. commencing the massive undertaking in 1993 was WHI's University at Buffalo Clinical Center. Housed at UB, the center's lead investigator was Jean Wactawski-Wende, PhD, now dean of UB's School of Public Health and Health Professions. With her epidemiological research interests in women's health, Wactawski-Wende has been an active and guiding presence in the WHI's initial—and continuing—work. She now leads the entire northeast region of WHI.

More than 68,000 post-menopausal women between the ages of 50 and 79 enrolled in WHI's initial clinical trials:

- » Hormone Therapy (HT) Trial, investigating the benefits and risks of combined estrogen and progestin hormone therapy and estrogen alone, compared to placebo, in post-menopausal women.
- » Dietary Modification Trial, focused on the effects of a low-fat/high-fiber diet on breast and colorectal cancer and heart disease.
- » Calcium and Vitamin D Supplementation Trial, examining the impact of calcium and vitamin D supplementation on the prevention of hip fractures and colorectal cancer.

WHI also ran an observational study tracking the medical histories and health habits of more than 93,000 women, which added (and continues to add) information that complemented the clinical trials.

One of the most significant findings that emerged from the WHI was related to hormone therapy, which sent what can only be described as shock waves through standard clinical practice at the time. The HT trial found that combined estrogen and progestin hormone therapy actually increased the risk of breast cancer, stroke, and blood clots and heart disease, while it decreased the risk of colorectal cancer and hip fractures. The study also showed that the risks outweighed the benefits for many women, leading to a shift in medical recommendations regarding hormone therapy for post-menopausal women. According to a paper based on the HT trial, the U.S. saw 126,000 fewer breast cancer cases as a result of a reduction in the use of HT. Although it revealed fewer risks, the estrogen-alone trial found more strokes in women taking the medication.

As for the dietary modification trial, it did not find a significant reduction in the risk of breast cancer, colorectal cancer, or heart disease with a low-fat diet. The study did provide insights into the complex relationships between diet, lifestyle, and health outcomes.



WHI Researchers



Associate Professor Amy Millen, PhD

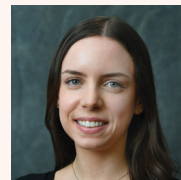
Millen first engaged with WHI when she was a grad student at the University of Wisconsin. Her advisor there was funded to conduct an ancillary WHI study on diet and age-related eye disease, and Millen was involved with the pilot projects, preliminary data collection and at the very beginning of data collection for the study. She has worked intimately in two WHI ancillary studies, the Carotenoids in Age-Related Eye Disease Study (CAREDS), and the Osteoporosis and Periodontal Disease (OsteoPerio) Study.



"[CAREDS and OsteoPerio] have provided me with opportunities to grow as a scientist through mentorship from these studies' principal investigators, Dr. Julie Mares and Dean Jean Wactawski-Wende. I have had the opportunity to write many papers on my areas of interest, nutrition, and chronic disease of aging (eye disease and periodontal disease). This has led to my growth as a scientist and contributed new information to the literature on the role of diet in both age-related macular degeneration and periodontal disease. These studies also gave me the opportunity to launch my research career, providing me with access to these data to propose, or be included in, NIH-funded research projects. I have also met many other WHI scientist with a research focus on nutrition. Through interactions with them, I have deepened my understanding of the role of nutrition in women's health and aging. Furthermore, I have also had the opportunity, through annual meetings, scientific interest groups, and committees, to be exposed to other avenues of reach in WHI (health services, genetics, hormones and women's health) that have expanded my knowledge base."

Kaelyn Burns, PhD candidate in epidemiology

Burns started working with WHI when she began her PhD studies in epidemiology at UB. She is using WHI data to complete each aim of her dissertation, "Associations of a TMAO Dietary Pattern to Metabolic and Gut Microbiome Profiles and Vascular Health." Her study underpinning the dissertation received a highly prestigious F31 grant from the National Heart, Lung, and Blood Institute/NIH. Burns has also been involved in data collection of a WHI ancillary study on the interplay of diet and the gut microbiome related to age-related macular degeneration, the PI of which is her mentor, Amy Millen.



"I appreciate the support and guidance provided by the professors and researchers who are involved with WHI. In addition, I have been able to build connections with researchers that I may not have otherwise connected with through collaboration on WHI projects. In addition to the skills I have gained in analyzing data from a large population-based cohort study, the collaboration and communication skills gained from being a part of a large research group will benefit my future career."

**Research Professor
Michael LaMonte, PhD**

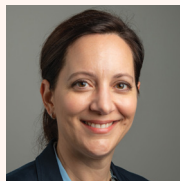
SPHHP Dean Jean Wactawski-Wende introduced LaMonte to WHI’s collaborative opportunities soon after he joined UB’s faculty. A self-described “break” came when he joined investigators at five sites around the country who planned and implemented the Objective Physical Activity and Cardiovascular Health (OPACH) Study in Older Women, a five-year epidemiologic cohort study funded by the National Heart, Blood, and Lung Institute. He also chairs the WHI Physical Activity Scientific Interest Group and represents the WHI on a national consortium pertaining to heart failure.



"In addition to opportunities nationally, I have had the privilege of working with Jean [Wactawski-Wende] and other UB faculty on the ongoing epidemiologic Osteoporosis and Periodontal Disease (OsteoPerio) Study. We recently completed an in-clinic examination of around 500 women in their 80s and 90s that I took part in, completing some of the measures of physical performance. I cannot begin to express the joy I felt in talking with the ladies, hearing their stories about first enrolling in WHI and then all that has happened over their years of participation and, of course, about their own life experiences. Nothing I do as a scientist or as a university professor affords me such tangible understanding about how our work is perceived and how it affects individual people."

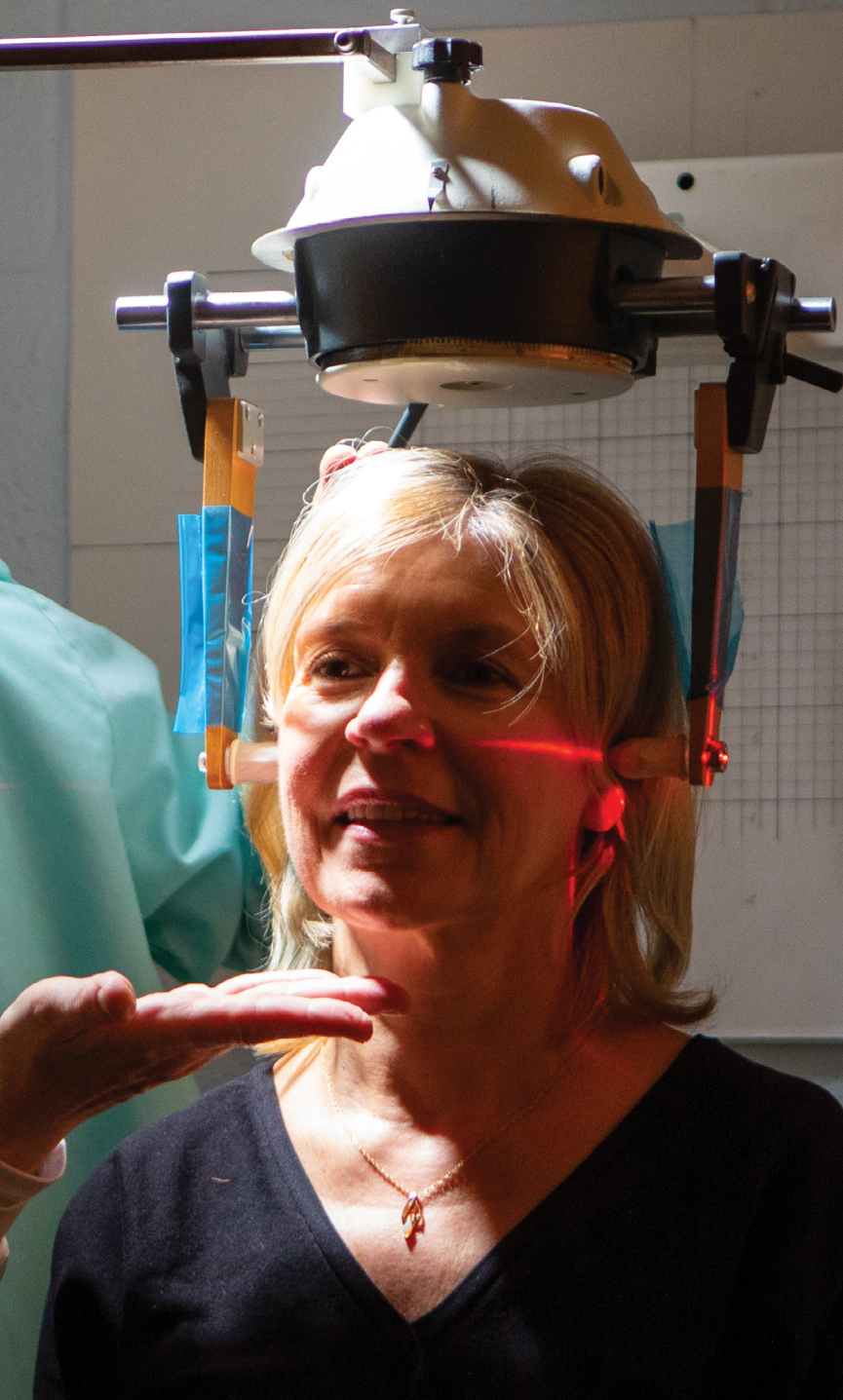
**Associate Professor
Heather Ochs-Balcom, PhD**

Ochs-Balcom began to work on the WHI study as a graduate student. Her tenure coincided with the time when the hormone therapy trials were stopped early, so she was able to witness a key historic moment of the study. She became engaged as a research investigator in 2009 when she had the opportunity to use some of the new genetic data being generated from WHI participants. Since then, Ochs-Balcom has been actively working on different studies in the WHI, becoming more involved with WHI investigators across the country. Her research has focused on genetic susceptibility, breast cancer, health disparities, obesity and body composition, and sleep.



"Our current study, funded by the National Cancer Institute, is focused on how hormones and abdominal obesity that develops after menopause are related to each other, and how specific hormones relate to breast cancer risk. We are excited to be studying follicle stimulating hormone, a hormone that surprisingly has not yet been studied in post-menopausal women. The WHI is a wonderful example of a resource that can improve our knowledge of women’s health, with more than 2,300 papers published to date. It is a powerful tool for educating young scientists. I love hearing stories about the dedication of the WHI participants, in particular. I like to say that women are smart—they know our work can improve and protect the health of future generations."





Ahmed Soliman, PhD candidate in epidemiology

When Soliman joined the epidemiology PhD program at UB, he began working with Jean Wactawski-Wende and Michael LaMonte using data from the OsteoPerio study. The OsteoPerio study is an ancillary study to the larger WHI cohort and is located at the WHI clinical center in Buffalo. He is interested in doing research on the relationship between hormone therapy and the oral microbiome, which the data from the OsteoPerio study gave him the opportunity to pursue.



"As I progressed in my PhD study, I decided to use data from the larger WHI cohort for my dissertation with a focus on cardiovascular disease in post-menopausal women. I also presented my research findings in two annual WHI meetings, which gave me the chance to meet other WHI investigators and get exposed to research conducted outside of Buffalo. Although the WHI clinical centers are spread throughout the U.S., getting to work with WHI investigators made me feel part of a closely related network of researchers dedicated to improving women's health through their work. The WHI provides a wide range of high-quality data that I can use to answer research questions that meet my interests. Moreover, the WHI investigators are world-renowned researchers that provide great mentorship to early career scientists."

Multiple benefits

Though many of WHI's findings made—and continue to make—headlines, an arguably as vital aspect of the study takes place behind the scenes, related to the evolution of junior researchers into experienced investigators continuing to add to the body of knowledge about what keeps women healthy.

During WHI's three-decade existence, numerous young researchers and students at UB and other WHI centers have mined its data in an effort to expand our understanding of post-menopausal women's health. Some of UB's most prolific scientists and promising students, several of whom are featured in this article, are continuing to contribute to the body of knowledge encompassed by WHI. With the National Heart, Lung, and Blood Institute/NIH funding WHI through 2027, the landmark study that "had a profound impact on the understanding of post-menopausal women's health," says Wactawski-Wende, will remain a wellspring of knowledge creation on healthy aging and an invaluable engine to train and support research careers.

Ongoing work

Happily for women’s health, WHI continues to advance knowledge of what keeps women living long and active lives through both extension and ancillary studies.

WHI’s extension studies collect long-term data from WHI volunteers to complement the original WHI study. The current extension study collects annual health information from WHI volunteers who agree to take part through 2027, with a focus on heart disease, cardiovascular events, aging, cognition and quality of life.

WHI’s ancillary studies are separate research projects that reach out to and enroll WHI volunteers. SPHHP researchers have been key investigators in some of those studies, benefiting from the opportunities to mine the data, work with researchers with wide-ranging expertise and, in the case of early-stage researchers, evolve their careers.

The Long Life Study (LLS) brought in 7,875 people for clinical measurements and sample donations (biospecimens) in 2012-2013, with a follow-up assessment ongoing since 2022. LLS data and specimens are available to any researchers who could make use of its baseline data to conduct studies on various aspects of aging, health, and disease.

In fact, according to Wactawski-Wende, sharing data is a hallmark of WHI, which “gave access to the data to researchers from across the country who needed it. Our goal in sharing the data was—and is—to boost the careers of the next generation of our trainees.”

The Objective Physical Activity and Cardiovascular Health Study (OPACH) used wearable devices to measure how physical activity impacts cardiovascular health in older women. Michael LaMonte, PhD, research professor of epidemiology and environmental health, is one of the national investigators on the study, which strove to understand the amount, type, and intensity of physical activity related to healthy cardiovascular aging in older women. A key result was that the U.S. Department of Health and Human Services’ second set of Physical Activity Guidelines for Americans included the study’s data in the scientific evidence report informing the guidelines’ recommendations for older adults.

According to LaMonte, “The main result of interest was our finding of better cardiometabolic risk factors (e.g., blood cholesterol, glucose, inflammation, etc.) and lower mortality risk in women who were active at



lower amounts and intensities than had previously been recommended for public health...the current guidelines now include a statement that ‘any movement is better than none and for older adults it appears substantial health benefits might be obtained through movement in light intensity, habitual activities of daily living.’” OPACH2 is underway, continuing to examine the links between activity and heart health in the same women a decade later.

MASS: Muscle and disease in post-menopausal women and Ms. LILAC (Muscle Mass in the Life and Longevity After Cancer [LILAC] Study) are two studies looking at the decline in lean body mass after menopause, seeking to understand which changes in muscle mass are associated with “normal” aging and which are caused by changes related to underlying age-related diseases such as cancer and diabetes. Defining this difference is a key to future interventions for a growing segment of the population. Research Assistant Professor Hailey Banack, PhD, and Wactawski-Wende are the primary investigators of these R01 studies funded by the National Institutes of Health including the National Cancer Institute and the National Institute on Aging.

Role of FSH in Postmenopausal Obesity and Breast

Cancer is honing in on the role follicle stimulating hormone (FSH) plays during menopause and how it contributes to development of post-menopausal obesity and breast cancer. It is the largest study of its kind in older women.

“Our hypothesis is that follicle stimulating hormone is driving weight gain, and the weight gain increases the risk of breast cancer,” says Heather Ochs-Balcom, associate professor of epidemiology and environmental health, and a principal investigator on the study with Jennifer W. Bea at the University of Arizona Cancer Center. Wactawski-Wende is a co-investigator. A hormone released by the pituitary gland, FSH plays an important role in female development and reproduction by stimulating growth of the ovarian follicle before ovulation, Ochs-Balcom explains. The project is funded through a five-year R01 grant from the National Cancer Institute/NIH. ○-----○



Perry Lecturer Calls for “Radical Change” in Preventing Disabilities



Dr. Alan Jette believes radical change in how the United States discusses and approaches preventing disabilities is needed to address a “hidden pandemic.”

It’s a lifelong passion he’s focused on changing.

As the 35th J. Warren Perry lecturer, Jette—a 1973 alumnus of the University at Buffalo’s physical therapy program—used a three-pronged approach touching on epidemiology, highlighting some disturbing trends and advocating for a radical future in the public health sphere.

The biggest challenge? No set definition exists, he said. What constitutes a disability in the United States is a secret.

“Definitions matter,” he said. “Definitions implicitly will indicate suggested potential solutions and targets for action.”

Jette said public health hasn’t been quick to recognize the issue. While the Americans with Disabilities Act, in 1990, sought to address many concerns, it has taken until this year for the National Institutes of Health to recognize persons with disabilities as a population with health disparities.

The National Health and Aging Trends Study, started in 2011, is studying disability, he said. It’s using consistent measures for comparison across multiple decades taken from previous studies.

Jette called that tactic “very smart.”

These studies, Jette said, point to an increasing prevalence for both men and women.

Categorized across three different severities, trends show all rates decreased between 1982 and 2004, then increased again by 2011.

A 2021 update showed some more positive trends, Jette said, like how a greater percentage of individuals with disabilities are accommodating their disabilities with devices meant to ease their burden. And, he added, the use of hospice care for end-of-life services has also increased, itself a great sign.

Still, he said, compared to whites, minority populations are less likely to successfully accommodate and more likely to require assistance, causing higher rates of experiencing an unmet need.

Addressing these concerns, Jette argued, would take a more population-centered approach.

Similar to how public health officials targeted smoking cessation, Jette said changing the public perception of disabilities through positive messaging, increasing ease of access to amenities, promoting physical activity and providing new opportunities for those who suffer could all help.

It’s an approach also addressing one of the key barriers hampering the more accepted models used today: reversion.

“As soon as you pull back on the intervention,” he said, “the patient reverts back to baseline. It happens all the time.

“I think we need to be much more radical,” Jette said. ○-----○



Lee Lecturer Takes On Link Between Alcohol Consumption, Cancer



Whatever you do, avoid heavy drinking of alcohol. That was the message of **Dr. Susan Gapstur** during the eighth annual Richard V. Lee, MD Lecture in Global Health.

After all, she said, harmful alcohol consumption is directly linked to several cancers.

That's right. Alcohol causes cancer. And Gapstur knows this because she practically (re)wrote the book on the matter. While serving on a panel for the World Health Organization's International Agency for Research on Cancer in 2007, she and colleagues studied the link between the ubiquitous intoxicant and various cancers.

A link was already established between alcohol and cancers of the mouth and oral cavity, larynx and pharynx, the esophagus and liver, presented by the same agency in a 1988 report. Gapstur's group both confirmed those results and added two more.

"They began to get a feeling about breast and colorectal cancer (in 1988), they just weren't willing to make a conclusion at that point because there was just not enough evidence," Gapstur said. "By 2010, the evidence was considered sufficient."

How does alcohol cause cancer? While the ethanol itself is linked to many of these forms of cancer, Gapstur said it's primarily driven by converting the alcohol to acetaldehyde.

It's poisonous to the body, she said, and in some cases prevents some people from even being able to take a single drink. In some East Asian populations, for instance, a polymorphism of the DLH2 enzyme causes immediate sickness due to difficulty metabolizing acetaldehyde, with Gapstur calling it "their built-in alcohol prevention tool."

How at-risk are those who drink? Gapstur said any alcohol consumption at all poses risk for developing some of those cancers studied in 1988. Beyond, consuming more than two servings per day increases the risk of colorectal cancer, while consuming more than three per day may increase the risk of both stomach and liver cancers.

What's most challenging for public health professionals is the lack of awareness around this associated risk, Gapstur said. A 2002 survey, for instance, found that despite knowing and reporting alcohol's cancer-causing effects 15 years earlier, less than half of the American population understood the risk.

None of this is to say alcohol should be avoided if you wish to consume, Gapstur said. After all, she partook in a glass of wine the night before her address.

It's the heavy, daily consumption of alcohol that is the most damaging, she said. ○-----○



Department of Biostatistics Names New Chair

Douglas Landsittel, PhD, has been named the new chair of SPHHP's Department of Biostatistics.



"Dr. Landsittel has a strong record of research, service, teaching and mentorship over a lengthy academic career," said SPHHP Dean Jean Wactawski-Wende, PhD. "Importantly, he is an experienced leader, most recently in a role as a department chair. He looks forward to supporting and building a strong sense of collegiality and collaboration within the department and our school, and across the university."

Landsittel arrives from the Indiana University-Bloomington School of Public Health, where he has served as the James A. Caplin, M.D. Chair in Evidence-based Public Health and chair of the Department of Epidemiology and Biostatistics since 2021.

Wactawski-Wende thanked Jeffrey Miecznikowski, PhD, associate professor of biostatistics, for his service as interim chair, and Gregory Wilding, PhD, who served as department chair for more than seven years.

"Their leadership has been instrumental in the department's success and lays a stable groundwork for the new chair," she said. She also thanked Pauline Mendola, PhD, chair of the Department of Epidemiology and Environmental Health, who led the search committee.

Before joining Indiana University-Bloomington, Landsittel held numerous academic appointments and leadership positions at the University of Pittsburgh—from which he received his bachelor's in applied mathematics and PhD in biostatistics—over two decades.

At Pittsburgh, he served as a professor of biomedical informatics, biostatistics, medicine, and clinical and translational science in the School of Medicine, where he was also associate director of the Center for Research on Healthcare (CRHC) Data Center and director of biostatistics (for research) at the Starzl Transplant Institute.

He was also director of the Expanding National Capacity in Patient Centered Outcomes Research (PCOR) through Training & Collaboration (ENACT) Network, which developed training for, and collaborations with, institutions that serve underrepresented groups.

With an extensive background in occupational injury and exposures, Landsittel also served as chair of the Safety and Occupational Health Study Section for the National Institute for Occupational Safety and Health (NIOSH), part of the U.S. Centers for Disease Control and Prevention. He was previously a team leader, acting branch chief, and senior statistician across three different divisions of NIOSH.

He also has a national reputation in biostatistics, data coordinating centers, biomarker studies, and cancer research. He leads the data coordinating center for the longest running study of polycystic kidney disease and is the director of the Data Coordinating Center for the Discovery Network of the Society of Critical Care Medicine. He is a Fellow of the American Statistical Association and serves as the Council of Sections representative for Statistics in Epidemiology.

"I am thrilled and honored to be the next chair of biostatistics for the UB School of Public Health and Health Professions. The department has a long-established record of educational excellence and scholarship, including both methodological innovations and impactful scientific applications," Landsittel says. "As the impact of our field continues to grow throughout biomedical research and society at large, our program will be a leading force in training the next generation of biostatisticians." ○-----○

Faculty Garner Honors and Recognition



SUNY Distinguished Professor of Epidemiology and Environmental Health **Jo L. Freudenheim**, PhD, MS, RD, has been selected as a member of the American Society for Nutrition Foundation (ASN) Class of 2023 Fellows. Since 1928, ASN members have built on nutrition science-based information and practice, provided education and professional development and science policy and advocacy. The society's highest honor recognizes Freudenheim's distinguished career in advancing the field of nutrition and improving health around the world. "The fellows of ASN are an enormously distinguished group of nutrition scientists. It is an honor to be included in that group," Freudenheim said.

Kasia Kordas, PhD, associate professor in the Department of Epidemiology and Environmental Health, received the prestigious Fulbright Scholar Award to study and teach abroad at Masaryk University in the Czech Republic. Kordas spent the recent fall semester at the Research Centre for Toxic Compounds in the Environment, an internationally recognized center in environmental chemistry and toxicology at Masaryk University. Founded in 1946, the Fulbright Scholarship Program is considered to be one of the most esteemed scholarship programs in the world. Some 8,000 grants are given each year to top students and scholars by the U.S. Department of State to improve intercultural relations, diplomacy and competence between the people of the U.S. and other nations through educational exchange.



John M. Violanti, PhD, research professor of epidemiology and environmental health in the UB School of Public Health and Health Professions and retired member of the New York State Police, served on a planning committee of experts convened by the National Academies of Sciences, Engineering, and Medicine. They were tasked with examining approaches for improving the measurement of death by suicide in the law enforcement occupation. "Considering recent issues with mental health in the U.S. and the increased risk of suicide among those who work in law enforcement and in the military, it became necessary to assess the scope of this public health problem among first responders," Violanti said.



Finding Her Passion in Environmental Health



Can the air you breathe make you sick? What about the water you drink? Even though humans are dependent on both for survival, they both can certainly cause serious health problems if polluted, according to **Lina Mu, PhD, MD**, University at Buffalo associate professor of epidemiology and environmental health, and director of the Office of Global Health Initiatives.

Mu has spent her career researching these environmental health factors, specifically as they relate to cancer. One of Mu's first exposures to these issues was through a cancer mortality study she completed in the Jiangsu province in Southern China.

The goal of the study was to determine why there were such elevated levels of esophageal, stomach and liver cancers in the provincial area. Mu and fellow researchers determined that increased cancer rates in the area were due to high levels of pollution in the area's bodies of water. Mu said the experience was eye-opening for her.

"It really was when I started to wonder about the environment and its contribution to health," she said.

In an additional study, Mu and researchers looked at high lung cancer rates in the female population, a group that characteristically has a much lower smoking rate than their male counterparts.

"We identified that indoor air pollution was the problem. Cooking fuel and poor ventilation systems in the kitchen were major contributors [to illness]," said Mu. "This was when I really developed a passion for studying environmental exposure."

Mu has continued this research as it pertains to the United States. A recent study led by Mu

looked at indoor air pollution exposure and early childhood development in U.S. mother-child pairs, a pioneer study in America. The study concluded that natural gas, propane, and wood fuel use during pregnancy and early life are associated with early childhood development issues. Another study led by her PhD students found that ambient air pollution exposure during pregnancy is associated with gestational diabetes.

"Reducing air pollution exposure is critical, especially around people who are vulnerable, like pregnant women, infants, and children. On a personal level, if you can't change your cooking fuel, use a good ventilation system or an air purifier to reduce air pollution level inside your house," Mu said.

Mu looks forward to expanding her research on environmental exposure, including trying to understand the impact not just on chronic diseases but on the lifetime impact of early life exposure. She also wants to focus on preventative measures. She credits much of her research's success to the University at Buffalo's collaborative environment.

"It took me no time to find collaborators. I see that there's consistent effort university-wide to help you build multi-disciplinary teams," she said. ○-----○





Meet Sirawar Matin, Sparkplug

Doctor of Physical Therapy (DPT) student **Sirawar Matin** is a sparkplug. Born to Bangladeshi immigrants and a New Jersey native, he moved to Buffalo in 2019 and has a bubbling enthusiasm for building his physical therapy career here, especially in his community.

Why Buffalo?

Buffalo is cold, but the people are warm. I came to Buffalo because of its low cost of living. But the reason I hope to stay is because of the innovation happening all around us, especially the start-up scene, which I've been very involved in since I got here.

My best friend and I took entrepreneurship as a minor and received \$1,500 to start a business. We had a novel idea of kids' slippers that had detachable soles as cleaning tools and phone-connected chips that helped kids learn while they moved. We won a bunch of pitch competitions, and the experience exposed us to actual entrepreneurship. This helped me transition to Buffalo, where I got the opportunity to serve as a senior venture coach at UB's Blackstone LaunchPad, the center for entrepreneurship on campus.

Why did you decide to get a PT degree?

I had been pre-med and took all the required courses, but physical therapy was always in the back of my mind. I finally chose the

DPT program because I saw a lack of representation in the field; about 80 to 85 percent of PTs are white or Caucasian. I've only met a handful of other brown PT students and professionals, so I know I can have an impact. I want to contribute to my community on an individual and physical level. I want to know, hear, and understand them.

Also, UB has so many resources as an R1 research institution. You can have academic, extracurricular and interprofessional experiences. It really is all here.

What's your novel idea?

I'm passionate about the East Side of Buffalo where I live; there is a big South Asian community there, and access to care is limited. I've always had a dream and want to validate the idea of building my own clinic and make physical therapy accessible. There's only one clinic in the entire East Side, which motivated me to acquire a corner lot nestled between two mosques in the heart of the community where I hope to start making an impact.

I hope to develop a proof of concept and see how the numbers can work to better serve this demographic. I'm a Western New York Prosperity Fellow, and I've been fortunate to get advice from business leaders. For instance, getting guidance from developers and hearing about businesses using big storage-like units for space, so that could be a possibility.

Why is physical therapy an important profession?

As a society, we've learned that movement is the key to living a healthy life, and PTs are movement specialists. We're learning more holistic methods to address movement issues and common impairments, and PTs are the people to do that. South Asians are very stoic; they hear the word therapy and they run away. I want to break those barriers. ○-----○

Student Star Continues to Shine

Srikrithi Krishnan, a second-year student in the Master of Public Health program, has been serving as 2023–24 This Is Public Health (TIPH) Graduate Student Ambassador for the Association of Schools and Programs of Public Health (ASPPH). Krishnan is the school's first ASPPH national public health student ambassador. TIPH fosters connections between students from other institutions to advance public health education and broaden the pool of future public health professionals. Krishnan is also part of the 2023–24 cohort of the UB Western New York Prosperity Fellowship Program. Supported by the Prentice Family Foundation, the program recognizes graduate students with an entrepreneurial drive for economic development and growth in the Western New York area.



Biostatistics Alumnus Writing His Own Story

Adam Cunningham, BA '13, MA '15, MA '20, considers his career and life to be not a “single novel with one plot but a series of connected short stories.” The fact that Cunningham has lived and worked on four continents and has degrees in political science, artificial intelligence, math and biostatistics pretty much confirms his notion.

After spending years as a software engineer and then a stay-at-home dad, Cunningham realized that his return to the workforce would mean completely retraining to catch up to where software had evolved. So, he thought, “It was a good time to make a career change.”

New paths

His desire for change took him to UB for bachelor's and master's degrees in math. Because he was interested in further study, specifically in how mathematical models can be applied in the real world, he subsequently also got an MA in biostatistics. (Incidentally, Cunningham hadn't taken a math class in 28 years and finished his biostatistics master's when he was 55.)

His time as a grad student inspired Cunningham to create the Probability Playground as part of the qualifying exam for his degree, consulting with Associate Professor Jeffrey Miecznikowski as he worked. Probability Playground is a website to help students who are studying probability theory and probability distributions, in particular. A probability distribution is a mathematical function that can help determine, for example, the failure rate of a product, potential for extreme weather events and the possibilities for numerous other situations.



“There are so many situations where people have to take an introduction to probability theory class. They get introduced to special distributions, which are probability distributions that crop up again and again,” he explained. Cunningham’s background in software engineering, education (he was a teaching assistant in grad school) and statistics gave him a precisely appropriate set of tools for the project.

After he presented the website prototype at the flagship conference of the Upstate New York Chapters of the American Statistical Association, he decided to further refine Probability Playground, adding features for accessibility and use on different devices, among others.

A labor of love

Cunningham’s “labor of love” ultimately led him to discuss how and why he developed Probability Playground at the Joint Statistical Meeting (JSM), one of the largest statistical conferences in the world, just last year. JSM attendees each year vote to determine the winner of the Best Contributed Paper Award in the Statistics and Data Science Education Section. And (you can

probably guess where this is going), for the first time in the 35-year history of the award, it was won by a paper from a contributor associated with the University at Buffalo, Cunningham, for “Probability Playground: Exploring Probability Distributions through Interaction.”

To Cunningham’s delight, since the paper was published in the proceedings of JSM 2023 a few months ago, he’s learned that interest in Probability Playground is “worldwide. It’s getting thousands of views, and 84 countries around the world are using it.”

Interestingly, Cunningham considers his “magnum opus” to be his master’s project on a scoring system for concussive symptoms, which was published in the *British Journal of Sports Medicine*, a leading peer-reviewed medical journal covering sports science and sports medicine.

Cunningham attributes his wide-ranging career and life to his “low boredom threshold. Variety is the spice of life. I’m not disposed toward doing the same thing over and over.” If that’s accurate, stay tuned for his next short story. [o-----o](#)

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BOLD MEANS FRESH IDEAS.

UB's Veggie Van is designed to be a "living lab" to test innovations, while giving students the opportunity to learn through a related food entrepreneurship course. It also aims to address food insecurity, a major issue that affects students on college campuses across the country.

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