UNIVERSITY of WASHINGTON

Public He MAGAZINE OF THE SCHOOL OF PUBLIC HEALTH

CELEBRATING OUR IMPACT AND CHANGEMAKERS

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Taking bold steps for a better future

Epidemiolo

Fifty years of preparing for trying times

Dean Hilary Godwin (right) meeting with Washington State Secretary of Health Umair Shah (left) at the Washington State Department of Health laboratories.

When we began planning our School's 50th anniversary, we had many ideas about how to celebrate this milestone. 2020 and 2021 had a different idea. Our year of celebration quickly turned into one full of upheaval and discourse. The pandemic forced our School and our work onto center stage where we have been essential in responding to the pandemic. As I reflected upon our past, our accomplishments and our future, I realized that we have been preparing for times like these for the past 50 years.

MAN NO

During the first decade, two visionary and passionate men — J. Thomas Grayston and Robert Day — led the School. Under their direction, the School established a reputation as a research powerhouse with a culture of collaboration along with community outreach and impact. These values remain today and have played a vital role in how we approach our work.

Our School's unique commitment to research and practice helps train students who appreciate the interconnectedness of both. Our faculty, staff, students and alumni have tackled some of the most pressing population health issues of our time. In this issue, we recognize 50 Changemakers of Public Health, but there are many more who deserve acknowledgment. During this pandemic, many members of our School worked endless hours in challenging environments, giving 200% effort during a difficult year.

This pandemic shined a glaring light on the inequities in many of our systems, including health care. Our School continues to make social justice, health equity and anti-racism our top priorities. Racism is an urgent public health threat, and we are committed to dismantling its systemic structure.

Our students are the future, and we are excited about the prospects that the new Health Sciences Education Building offers them. The building, slated to open in 2022, allows all six health sciences schools to train students in how to work together, resulting in future professionals who are better prepared to improve the health of individuals and communities. We also recognize that we can make a bigger difference for communities when we have researchers and practitioners who look like the people we serve. This fact has energized our efforts to diversify our student body. To succeed, we will need to provide more financial support for students from diverse backgrounds, which is why we have launched our Campaign for Students.

As I look forward to the next 50 years, I'm inspired and hopeful. The Hans Rosling Center for Population Health, our new home, is designed to encourage interactions with faculty, students, staff and partners from public health and many other disciplines to facilitate intentional collaborations. I have no doubt that during the decades ahead, our School will lead in developing great innovations and making amazing discoveries that will improve the health and well-being of all populations. I'm looking forward to working with all of you to make this future a reality.

A Ce

Hilary Godwin Dean, UW School of Public Health

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50 Changemakers of Public Health



of impact





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Fifty years of saving lives, serving the public

UW School of Public Health marks half-century of impact

WRITTEN BY ASHLIE CHANDLER AND JEFF HODSON

LAYING THE FOUNDATIONS

. Thomas Grayston discovered his passion for public health on a Midwestern corn field. An old silo, to be precise. It was there, in the 1950s, that Grayston, a young medical doctor at the University of Chicago, investigated a case of histoplasmosis — a lung infection caused by fungal spores. At the time, little was known about the disease.

Grayston had followed a patient back to his farm, 50 miles away in northwest Indiana. After inspecting the farm and taking soil samples, Grayston pieced it all together. The patient had become ill after cleaning out the old silo, disturbing soil containing infectious spores most likely from bird or bat droppings. The farmer's children, who helped shovel and transport the soil, were also affected.

"Clinicians treat patients in hospitals but by going out into the community, learning where they lived and worked, we were able to find out how exactly the patient got infected," said Grayston, now 96.

It was this experience that would launch Grayston into a career as an infectious disease epidemiologist, serving as one of the first members ever of the Center for Disease Control and Prevention's (CDC) Epidemic Intelligence Service. He then led studies of infectious diseases in East Asia for a U.S. naval research unit based in Taiwan before taking on a new challenge at the University of Washington in 1960. The School of Medicine, which formed just after World War II, had a small Department of Preventive Medicine, which Grayston was asked to chair.

Grayston's timing was good. Funds were available from the federal government for public health and infectious disease research and training, the UW allowed him to recruit more faculty and the state had new revenue to finance environmental health research. In 1963, the Environmental Health Laboratory, which opened more than a decade earlier and was housed in the Department of Preventive Medicine, received funding from the state to expand the lab facilities and boost efforts to improve occupational health for Washington's workers.

By the end of the decade, the department had grown nearly tenfold, from four original faculty members. "Those 10 years, from 1960 to 1970, are really very important to the current school of public health," Grayston said. "They really laid the foundation."

Grayston's early focus was on boosting research productivity and hiring key faculty who would become important leaders: Russ Alexander, Ed Perrin, George Kenny and Hjordis Foy, to name a few.

By 1968, the department was essentially set up as a school of public health. It had divisions that would soon become their own departments: biostatistics, epidemiology, pathobiology and environmental health (which began in 1947 as a small program in sanitary science). A health care studies program launched that year.

"As the department grew, it really didn't fit in with the School of Medicine," Grayston said. Its sheer size and specialties made it unique. Additionally, the Pacific Northwest needed a public health training and research center. "The nearest public health schools were in Berkeley and Minneapolis," Grayston said.

Another motivating factor: federal funds for training were available specifically for schools of public health, of which the U.S. had only 11 at the time.

On May 22, 1970, the UW Board of Regents approved plans for an autonomous School of Public Health and Community Medicine, with Grayston as its first dean. A report on that meeting noted that the "emphasis on the health of population groups is ordinarily different from the emphasis on individual patient care characteristics of other departments of the School of Medicine."

Research was to focus on the causes of disease and preventive measures. The School was charged with mobilizing support for health-related legislation as well as reducing the cost and increasing the quality and availability of health services. The new School would continue to train medical students and provide PhD and master's degrees for practitioners, teachers and investigators. It would also offer short courses for regional public health personnel. The School formally opened on July 1, 1970.

It already had a new home — the



Health Sciences' F-Wing - completed in 1966 with state and federal funding. Called the Preventive Medicine and Environmental Research Wing, it seemed like a lot of space at the time. The UW School of Public Health and Community Medicine quickly became known as a strong research center, especially on respiratory infections and

sexually transmitted diseases. "Our biostatistics group was seen as one of the better programs in the country," Grayston said. "Same could be said for epidemiology."

One major accomplishment included Grayston's work with Palmer Beasley, James Gale and Roger Dietels in Taiwan, where the team successfully tested a vaccine for rubella.

While he laid the foundations for the School and its core disciplines, Grayston was dean for only one year. In 1971, John Hogness, former dean of medicine and then UW executive vice president, recruited Grayston to become vice president of health sciences, overseeing the six health sciences schools. Grayston maintained his research labs while an administrator and would return to his research until retiring in 2010. The man Grayston recruited to lead the new Department of Health Services, Robert "Bob" Day, would guide the School through its first decade, setting the tone for new collaborations and community outreach.

1970s



DEAN: Robert Day 1972-1982

he School's student body grew along with its thriving degree programs, such as the Master of Health Administration (MHA) program, headed for a time by William Richardson, then chair of the Department of Health Services, and Stephen Shortell, who was named Health Services chair in 1980. An Executive MHA Program was added in 1997 for working health care professionals. Also designed for working professionals was the Extended MPH Program (now called the Online MPH Program – SEE STORY ON PAGE 50) that officially launched in 1980 to help practitioners advance their skills and knowledge in public health while based in communities across the country and internationally.



UW School of Public Health and Community Medicine, January 1970.

The School gained PhD programs in epidemiology (originally a PhD in preventive medicine) and biostatistics, as well as master's programs in epidemiology and health systems and policy. A new Northwest Center for Occupational Health and Safety,

Against a backdrop of the war in Vietnam, continued fight for women's and racial equality and crusade to protect the environment, the UW School of Public Health and Community Medicine formalized its training of medical students along with a new generation of graduate students seeking to improve the health of human populations.



"WE HAD A GOOD NUMBER OF PHYSICIANS IN THE PROGRAM, INCLUDING A FEMALE NAVAL OFFICER WHO WAS CHIEF MEDICAL OFFICER ON ONE OF THE LARGEST AIRCRAFT CARRIERS IN THE FLEET AND A PHYSICIAN WHO WAS THE CHIEF MEDICAL OFFICER FOR THE ENTIRE U.S. NAVY PACIFIC COMMAND."

Tom Wickizer, retired professor of health services who served as director of the Extended MPH Program in the 2000s

founded in 1977 and based in the Department of Environmental Health, provided financial support to graduate students in occupational health and safety and continuing education for practitioners in the field.

Under the leadership of Russ Alexander, the Department of Epidemiology expanded its expertise beyond infectious diseases to include genetic, injury, cardiovascular disease and cancer epidemiology. Donovan Thompson, chair of the Department of Biostatistics from 1973 to 1983, was integral to a flourishing collaboration between the School and the new Fred Hutchinson Cancer Research Center. This partnership, championed by **Bob** Day, who would later become president of Fred Hutch, not only created synergy between the School's epidemiologists and biostatisticians that led to important contributions in cancer research, but



Donovan Thompson, head of the Program of Epidemiology and Biostatistics at Fred Hutch, 1972-1981.*



Drs. David Thomas (L), UW Department of Epidemiology and Ross Prentice (R), UW Department of Biostatistics. Prentice was the first director of Fred Hutch's Division of Public Health Sciences, 1981-2003



Dr. Richard A. Smith, founder of MEDEX Northwest with (clockwise) Dr. Ray Vath, and Deputy Director and Deputy Administrator of MEDEX Gerry Bassett and Mark Markarian.[‡]

also allowed both organizations to attract high-caliber researchers like Ross Prentice, David Thomas and Janet Daling, a School alum, all who also would be key to educating the next generation of public health researchers.

Major scientific accomplishments included **Palmer Beasley**'s discovery that chronic infection with hepatitis B was a cause of liver cancer, a finding that led to interventions that have saved countless lives, and Noel Weiss' studies linking the use of hormone therapy to ease symptoms of menopause to an increased risk of cancer of the lining of the uterus.

The School's commitment to health equity began to take form during this decade. To improve access to quality health care in the U.S., particularly in rural communities, the MEDEX Northwest program, founded in 1969 by Richard Smith and housed in the Department of Health Services from 1972 to 1994, trained former military medics and corpsmen to be civilian health practitioners — laying the groundwork for the physician assistant profession. When Smith left the UW to expand this training globally in 1973,

Under the leadership of Gilbert "Gil" Omenn, originally recruited to be chair of the Department of Environmental Health, the School solidified its excellence in the basic sciences of public health and expanded to other fields such as health promotion and prevention, health policy and practice. Researchers continued to serve the state through their environmental health work and strengthened their collaborations with communities, health departments and other UW units.



a world-renowned biostatistician, provided leadership that would guide the biostatistics department down a

David Lawrence, a Robert Wood Johnson Foundation (RWJF) Clinical Scholar, took over and expanded the program to include nurses and others. By the 1980s, graduates could earn degrees in clinical health services. Additionally, in 1975, Paula Diehr led an influential evaluation of the Prepaid Health Care Project of Seattle's Model Cities Program, intended to subsidize health care for the city's low-income families. Bill Richardson, Doug Conrad and others in the Department of Health Services also took part.

The RWJF Clinical Scholars Program, awarded to the School in the mid-1970s, helped to boost the School's training of young physicians as leaders and health services researchers, giving them the tools they needed to tackle complex health problems in communities. This program spawned some notable alumni and changemakers (SEE STORY ON PAGE 38) over the next few decades, such as pioneering gun violence researchers Frederick Rivara and Art Kellerman.



path to becoming the No. 1 biostatistics program in the world. He helped to build the modern field of biostatistics,

nurturing the careers of young researchers and advancing science to improve public health. Breslow would lead the department for a decade.

The School expanded its training of students in the development and application of methods in epidemiologic research. Noel Weiss, who became chair of the Department of Epidemiology in 1984, and Tom Koepsell, who was handed the baton in 1994, established the School's renowned two-course series on epidemiologic methods and co-taught it through 2011. The School also continued to broaden its epidemiological expertise by bringing back School alumni such as Bruce Psaty and David Siscovick, who co-founded the Cardiovascular Health Research Unit, and by partnering with Seattlebased institutions like UW Medicine and Swedish Medical Center to recruit clinical epidemiologists who could serve as mentors to students.

The Center of Excellence in Maternal and Child Health, founded by Irv Emanuel, admitted its first class of students in 1985. The program, now



Laura Koutsky, a PhD student who would later become a faculty member, conducted studies that demonstrated the link between human papillomavirus (HPV) and cervical cancer. This research spurred the development of new cervical cancer screening methods and was critical to the first HPV vaccine trials. Koutsky served as the lead investigator in one of these trials.

Smallpox was eradicated due largely to the work of then-Affiliate Professor William Foege of the Department of Epidemiology and his novel surveillance and containment approach to vaccination

Marilyn Bergner and Betty Gilson developed the Sickness Impact Profile, a novel tool for measuring health status behaviorally that attracts widespread use.



Noel Weiss, Kathie Koepsell and Tom Koepsell preparing to go white water rafting, 1984.

led by Daniel Enquobahrie, provides graduate-level training in maternal and child health research and practice and shares knowledge with the public health workforce through the Northwest Bulletin. The program, which was the first in the School to include a practicum as part of its training, has graduated more than 300 students. Fred Connell, Colleen Huebner and Melissa Schiff have also served as directors.

In 1986, the School was selected to house one of the first three Prevention Research Centers in the country, funded by the CDC. The School's Health Promotion Research Center laid the groundwork for increased engagement with communities and a growing emphasis on public health practice. Recognizing the changing demographics at the time, the center based in the health services department — was designed to focus on the health promotion of older adults. Later, in the 1990s, the center would develop a depression treatment program for older adults called the Program to Encourage Active, Rewarding Lives, dubbed PEARLS, in collaboration with communities.

Reflecting the growing environmental justice movement, the School's Department of Environmental Health, then led by Sheldon Murphy, recruited young faculty with excellent research

potential and established the UW Superfund Research Program, with funding from the National Institute of Environmental Health Sciences, to address human health and environmental issues related to hazardous substances. The program continues to partner with local, state, tribal and federal entities and impacted communities to understand and break the link between chemical exposure and disease.

Additionally, the environmental health department — together with the UW's Department of Medicine and the Division of General Internal Medicine — established the Occupational and Environmental Medicine Clinic at Harborview Medical Center. The clinic continues to work with patients, labor unions, employers and community groups to prevent, diagnose and treat injuries and diseases caused or aggravated by work or community environmental exposures.

A small international health program began to form during this period, as Stephen Gloyd and others secured funding to lead projects with students in Mozambique and other parts of the African continent. To promote policies and programs that strengthen primary health care in Mozambique, Gloyd and a group of doctors and nurses created the Mozambique Health Committee in 1987. Over the next 30 years, the

committee expanded its reach and mandate — becoming Health Alliance International — to implement health systems strengthening programs and research across four continents, and to provide a model for global health advocacy and intervention rooted in solidarity with public sector health systems.

In response to the AIDS epidemic in the U.S., the UW/Fred Hutch Center for AIDS Research was launched under the leadership of King Holmes, becoming one of the first and largest centers of its kind in the country. The center has since contributed to improving the continuum of care for individuals with HIV around the world. Locally, a strong partnership with the public health department helped Seattle and King County become the nation's first major metropolitan region to achieve the World Health Organization's



o mark the 25th anniversary of the School in 1995, the Department of Biostatistics, led at the time by **Thomas Fleming**, hosted the first Seattle Symposium in Biostatistics, attended by more than 400 statisticians from over a dozen countries. In the Department of Health

Services, researchers partnered with

90-90-90 goal.

In 1988, Joan Kreiss established the International AIDS Research and Teaching Program at the UW, with funding from the Fogarty International Center, to foster international collaborative AIDS research through scientist exchange. The program



An era of continued maturity for the School, this decade saw many key accomplishments that helped to establish the institution as a national leader in public health research, training and practice. The School embraced pivotal philanthropic partnerships and later in the decade gained Patricia "Pat" Wahl as the first woman to serve as dean.

Group Health Research Institute to conduct the "Kaiser Evaluation" of interventions to promote community health. Susan Hedrick and others developed a way to evaluate the effectiveness of adult day health care programs for veterans. Donald Patrick, who was hired in 1987 to launch the Social and Behavioral Sciences program,

has since trained more than 330 investigators in Africa, Asia and Latin America, and many former students have continued collaborative research relationships with UW colleagues after they returned to their home countries. The program is now led by Carey Farquhar.

1981

Marvin Oliver, who passed away in 2019, designed the Soul Catcher as a logo for the School. It's a Northwest Native American symbol for physical and spiritual well-being.

1982

The UW offered its first undergraduate course in toxicology.

co-authored a world-famous report on health status and quality of life. Paula Diehr, who served as interim chair of the department in 1994, and Fred Connell, a long-time associate dean of academic affairs, won AcademyHealth's Publication-of-the-Year Award for their paper on the null hypothesis in a smallarea analysis.

Several centers launched during this period that reflected the strong, crossdisciplinary partnerships of the time and the coming of age of the School's expertise.

- **David Eaton** founded the Center for Ecogenetics and Environmental Health (now called the Center for Exposures, Diseases, Genomics and Environment, or EDGE).
- Elaine Faustman created the Institute for Risk Analysis and Risk Communication.
- Mark Oberle founded the Northwest Center for Public Health Practice to help improve public health through collaboration between academia and the practice field.
- Richard Fenske and Matthew Keifer established the Pacific Northwest Agricultural Safety and Health Center to address health and safety concerns in the farming, fishing and forestry workforces.

The Department of Environmental Health graduated its first PhD students in 1995 and an innovative graduate training program in public health genetics was established in 1999. Led by Melissa Austin, a faculty member in the epidemiology department, the public health genetics program focused on using genomic advances to improve population health. The Institute for Public Health Genetics, as it is known now, remains the only one if its kind in the world, offering a PhD, MPH and graduate certificate in public health



Former directors of the Northwest Center for Public Health Practice pose with Health Resources and Services Administration Representative John Kress



The first Seattle Symposium in Biostatistics. L to R: Paul Meier, Sir David Cox (keynote speaker at the first symposium), Mitch Gail, Tom Fleming and Ross Prentice.

genetics as well as an MS in genetic epidemiology. Bruce Weir currently serves as director.

Early in the decade, the Interdisciplinary Graduate Program in Nutritional Sciences, which included a PhD program in nutritional sciences, moved into the School, with an administrative home in the Department of Epidemiology. (The Nutritional Sciences Program, as it is now known, would later move into the Office of the Dean). Elaine Monsen served as director of the program from 1994 to 1998, at which point Adam Drewnowski took the helm. An MPH in nutrition was created in 1996.

In 1993, Michelle Williams, then a professor of epidemiology, created the Minority International Research Training Program, which trained students from underrepresented backgrounds for research and leadership careers in public health. The program trained hundreds of students in global health, biostatistics and epidemiology in over 14 international research sites in South America, Southeast Asia, Africa and Europe. Williams is now dean of the Harvard T.H. Chan School of Public Health.

In 1995, the Department of Environmental Health was authorized by the Occupational Safety and Health Administration (OSHA) to offer health and safety training and continuing education courses through the Pacific Northwest OSHA Education Center, serving Washington, Oregon, Idaho and Alaska.

The Health Policy Analysis Program, a service team that worked with state

policy makers on issues of public health importance, made some significant headway. Led by Aaron Katz from 1988 to 2003, the program staffed a state commission for two years to come up with a health care reform proposal, which was passed by the state legislature in 1993. Though the bill was repealed two years later, parts of the reforms were kept in place.

"THE PUBLIC HEALTH GENETICS PROGRAM WAS ONE OF THE SIGNAL INITIATIVES OF THIS TIME. IT WAS A SPLENDID EXAMPLE OF ENGAGING ALL THE OTHER UW HEALTH SCIENCES SCHOOLS, THE LAW SCHOOL, PUBLIC POLICY, ANTHROPOLOGY AND OTHER PARTS OF THE CAMPUS."

66

Gil Omenn, who played a key role in the development of the program, said in a 2013 video interview

Boosted by faculty who held prominent positions in local health districts, such as James Gale, former Wenatchee health officer, the School continued to build ties with practice partners in the state and strengthened its status as a practice-oriented school of public health.

Making philanthropy a priority, Omenn cultivated strategic relationships with private organizations that led to endowments that have continued to support the recruitment of promising researchers and educators as professors and chairs (SEE PAGE 52 to learn about Omenn's philanthropic legacy).

2000s



ogether with the UW School of Medicine, the School launched a new Department of Global Health in 2007 with a generous investment from the Bill & Melinda Gates Foundation and initial funding from Washington state, and named **King Holmes** the founding chair. The School's former Department of Pathobiology became a PhD program within the new department and an MPH program was launched in 2008.

Four centers formed the new global health department: The Center for AIDS Research, Health Alliance International, Global Health Resource Center and International Training & Education Center for Health (I-TECH). I-TECH was established by Ann Downer in 2002 to develop a skilled health workforce and strengthen health systems globally. Since its inception, I-TECH has supported programs in more than 30 countries, launched several local health organizations to ensure country ownership and transitioned more than 350 programs to



Founding chairs of the Department of Global Health. L to R: Steve Gloyd, Judy Wasserheit and King Holmes.

Under **Pat Wahl**, a professor of biostatistics and an early graduate of the School, the School changed its name to the School of Public Health. It took critical steps to expand its impact on global health and nutritional sciences and began to build a pathway for undergraduates to study public health.



local entities. Pamela Collins became I-TECH's executive director following Downer's retirement in 2020.

In 2008, the global health department's International Clinical Research Center (ICRC) was established to coordinate and implement multicenter international infectious disease prevention trials. ICRC has since spearheaded pivotal HIV prevention research, including the Partners PrEP Study, led by Jared Baeten and others, which contributed to the U.S. Food and Drug Administration's approval in 2012 of pre-exposure prophylaxis (PrEP) for HIV prevention. Today, the ICRC is home to several studies on the prevention and treatment of COVID-19.

Bruce Weir, who was recruited to lead the Department of Biostatistics in 2006, brought the Summer Institute in

Statistical Genetics to the UW School of Public health. The institute would eventually expand to include Statistics in Modeling and Infectious Diseases, Statistics in Clinical & Epidemiological Research and Statistics in Big Data. Weir still serves as the institute's director. He was also integral in the creation of the Genetic Analysis Center in 2007 to advance the discovery of genetic variation and how it contributes to human disease and well-being. The center, which Weir now directs, is the coordinating center for the Trans-Omics for Precision Medicine (TOPMed) program of the National Heart, Lung and Blood Institute.

Under Chair David Kalman, the Department of Environmental Health changed its name to the Department of Environmental & Occupational Health Sciences to reflect its growing expertise

and service in occupational health and safety. In 2005, the Environmental Protection Agency awarded its largestever research grant to the department to study the connection between air pollution and cardiovascular disease.

This period was also defined by key achievements made to build up a thriving program in nutritional sciences and dietetics, led by Adam Drewnowski. Early in the decade, the Center for Public Health Nutrition was created and an MS in nutritional sciences was launched. In 2008, two successful and accredited programs - the Didactic Program in Dietetics and the Dietetic Internship - were combined to create the Graduate Coordinated Program in Dietetics, led by Director Anne Lund. The School also developed more undergraduate courses in nutrition.

The School launched a new PhD program in health services in 2000, along with an occupational health services research training track, jointly sponsored by the Departments of Health Services and Environmental Health. A bachelor's program in Health Informatics & Health Information



The COPHP program's annual visit to the Hanford Nuclear Reservation in Richland, Wash. Pictured: 2019 COPHP graduates and faculty members Aaron Katz, Gerry Pollet and Amy Hagopian.

Management (HIHIM) began in 2001, and a master's degree option in HIHIM would be added in 2012. The School also launched an innovative MPH program in 2002, called Community-Oriented Public Health Practice (COPHP) program, which uses a problem-based learning approach to train students eager to develop practice skills. Fred Connell was the program's founding director. Bud Nicola, who helped design the program, took over later in the decade and Peter House would guide the program into the next

decade. Amy Hagopian served as the program's director from 2013 to 2021.

Pat Wahl established a public health practice pathway for faculty promotion and created the first associate dean position for public health practice, held by Mark Oberle, a model followed by many other schools since. Together with Oberle, Wahl visited 33 local health departments to improve relations with the School's practice partners.



DEANS: Howard "Howie" Frumkin (2010-2016), Joel Kaufman (2016-2018)

Howard "Howie" Frumkin worked to create a sense of the School as a whole rather than the sum of its parts and set the School on a path toward addressing important and emerging public health challenges, from climate change to obesity. When Frumkin departed in 2016, Joel Kaufman, a long-time faculty member, was selected to serve as interim dean and was integral to reshaping the School's popular MPH program and to jump-starting its efforts around equity, diversity and inclusion. Hilary Godwin was recruited to become dean in 2018.

uilding off the School's 2012-2020 strategic plan, spearheaded by Howie Frumkin, the Center for Health and the Global Environment (CHanGE) was formed in 2014 and Kristie Ebi was hired as its first director. The center, which is shared between the Departments of Global Health and Environmental & Occupational Health Sciences, brings together an interdisciplinary team of researchers and practitioners to partner with communities to develop tools, test interventions, implement solutions and train the next generation to promote and protect health in a changing climate. Jeremy Hess took over as director in 2019.

Other strategic hires during this period included Alison Fohner, a genetic epidemiologist and a 2015 graduate of the School's PhD program in public health genetics; Anjum Hajat, who studies social and environmental stressors and how they impact health; Jessica Jones-Smith, who studies the social, environmental and economic causes and correlates of obesity risk; and Bryan Weiner, who would lead the Department of Global Health's new Implementation Science Program.

The Department of Global Health continued to flourish on many fronts. A PhD program in Global Health Metrics and Implementation Science was created and the Global Health E-Learning Initiative began to offer online courses and educational resources to support students, faculty and health workers worldwide. Since 2012, these courses have enrolled more than 50,000 students from 59 countries. The department also gained the Global Center for Integrated Health of Women, Adolescents and Children (Global WACh) — now directed by Grace John-Stewart — that takes a life-cycle approach to scientific innovation and leadership. Additionally, the Program on Global Mental Health began with

the goal of expanding access to effective mental health interventions. The program is led by Pamela Collins and is a joint effort between the Departments of Global Health and of Psychiatry and Behavioral Sciences. In 2014, Judith Wasserheit became chair of the department and the first woman chair in the School.

The UW's 25-year Population Health Initiative kicked off in 2016, bringing together disciplines across the University to work on solutions to local and global population health issues. To bring key partners in the initiative under one roof, the UW broke ground on the new Hans Rosling Center for Population Health, which officially opened in 2020 amid the COVID-19 pandemic. The building was funded in large part by a transformative gift from the Bill & Melinda Gates Foundation and now serves as the School's new home (SEE PAGE 58 to learn more about the building).

In 2018, the Seattle City Council unanimously passed regulation requiring gun owners to safely store their firearms and to report stolen guns, a policy significantly informed by the School's researchers, including Ali Rowhani-Rahbar and Frederick Rivara. Earlier



The Hans Rosling Center for Population Health



OTHER CENTERS THAT FORMED

2013: The Center for One Health Research was created to investigate the links between people, animals and the environment we share.

2013: The Seattle-Denver Center for Innovation was established to conduct health services research that advances veteran-centered and value-driven health care. The center is a partnership between the Health Services Research & Development programs at Veterans Affairs (VA) Puget Sound in Seattle and VA Eastern Colorado in Denver.

2017: The Center for Health Innovation and Policy Science was founded to improve health across communities and the lifespan through innovation, evaluation and training in health policy and health systems science.

that same year, a study led by then-PhD student Erin Morgan showed that only 37% of Washington state's gun owners safely store their firearms. Later, in 2020, the UW received \$1.5 million from the CDC to study handgun carrying among rural adolescents. That study is led by Rowhani-Rahbar, who was named the UW's Bartley Dobb Professor for the Study and Prevention of Violence during this period and also co-directs the Firearm Injury & Policy

Research Program at Harborview Injury Prevention & Research Center.

The Strategic Analysis, Research & Training (START) Program was established in 2011 under the direction of Judd Walson and Lisa Manhart. The program was a collaboration between the School's Department of Global Health and the Bill & Melinda Gates Foundation to provide highquality research support to help meet the Foundation's strategic information needs. In 2014, it expanded into the START Center and has continued to provide original research to global and

domestic health teams.

Janet Baseman, a School alum turned faculty member, founded the Student Epidemic Action Leaders (SEAL) Team in 2015 to provide students across the School with experience in applied epidemiology through methods training and field assignments at state and local health departments. Since the program began, students have offered more than 2,200 hours of support for assignments ranging from outbreak investigation to emergency response. In April 2020, members of the SEAL Team were called to participate in Washington state's surge response to the COVID-19 pandemic.

The School adopted an anti-racism curriculum competency for students that was developed by Amy Hagopian, Kate West, Clarence Spigner and India Ornelas, who chaired a School-wide Equity, Diversity and Inclusion (EDI) Committee during this time. In 2018, the School hired its first-ever director of EDI, Victoria Gardner, who is now an assistant dean. Over the last few years, Gardner has led a tremendous effort to create an EDI road map for the School and to launch universal anti-racism training, among other initiatives (SEE PAGE 54 for more on the School's EDI efforts).

A popular individualized studies degree in public health moved from the UW College of Arts & Sciences into the School of Public Health in 2012, and the curriculum was revised to create the Public Health Major. Sara Mackenzie was appointed to oversee the program and staffers Tory Brundage and Susan Inman were hired to advise students and manage the major. In 2018, the major was renamed the Public Health-Global Health Major to better reflect its domestic and global competencies. The program now offers both a BA and BS, and it has grown to admit 300 students every academic year. More the 40% of students in the program have self-identified as first-generation college students. Barbara Baquero currently serves as the program's interim director.

CONTINUED GROWTH IN UNDERGRADUATE PROGRAMS

2013: A minor in nutrition is offered at the UW.

ΠÎ

2012: A suite of undergraduate courses is established in the Institute for Public Health Genetics.

2018: A new undergraduate major in Food Systems, Nutrition and Health was launched

Jennifer Otten, one of the driving forces behind the School's Food Systems, Nutrition and Health major, took on an added role as Food Systems Director and the study of food systems became a new focus for the Nutritional Sciences Program.

Under Joel Kaufman, the School embarked on an ambitious journey in 2018 to reshape its popular MPH program with a new common core curriculum that integrates research and practice skills while preparing students for an ever-changing public health landscape. The re-envisioned MPH program launched in the fall of 2020 and is led by Director India Ornelas and instructor teams for each of the six courses now required by all MPH degree

MAJOR SCIENTIFIC ACCOMPLISHMENTS

2011: Former Biostatistics Chair Thomas Fleming published landmark research in the New England Journal of Medicine on the prevention of transmission of HIV.

2013: In a collaboration across departments in the School and with three other universities, Amy Hagopian and Abraham Flaxman conducted a household survey across 100 geographic clusters in Irag to estimate mortality associated with the 2003 invasion.

2016: Joel Kaufman, who served as interim dean during this period, and his collaborators published a decade-long study that showed people in the U.S. living in areas with more air pollution accumulate deposits in the arteries that supply the heart faster than do people living in less polluted areas.

2019: An interactive mapping tool was created to rank Washington state communities most hurt by environmental health risks. State policymakers are now using the tool to inform the state's transition to 100% clean energy by 2045. Then-PhD student Esther Min, Edmund Seto and Michael Yost, who was named chair of the Department of **Environmental & Occupational Health** Sciences in 2014, developed the tool alongside community partners.

2019: A study funded by the Washington State Legislature found that communities underneath and downwind of jets landing at Sea-Tac International Airport are exposed to a type of ultrafine air pollution distinctly associated with aircraft.



students (except those in COPHP).

The School welcomed its first cohort for the Master of Science Capstone in Biostatistics, designed for students who wish to enter the job market upon graduation. In 2019, Lurdes Inoue became the first woman to chair the Department of Biostatistics.

2020s

2020 was meant to be a year of celebration, as the UW School of Public Health was due to turn 50 on July 1. Instead, Hilary Godwin led faculty, staff and students through an unprecedented year of major, world-shifting events, including a new movement against systemic racism, the burning of wildlands in the west, a tempestuous presidential election and the worst pandemic the world has seen in more than a century. Dean Godwin has continued to bring renewed commitment to operating the School in a manner that reflects its public health values.



Just three weeks after that event,



UW Nursing students administer COVID-19 vaccinations to UW Northwest Hospital staff at Northwest Hospital. Photo credit: University of Washington

which was hosted by the UW's MetaCenter for Pandemic Disease Preparedness and Global Health Security (now the Alliance for Pandemic Preparedness), the World Health



Organization declared the COVID-19 outbreak a pandemic. Within months, hospital ICUs in Seattle and in other cities around the world were filled with record numbers of critically ill patients.

Under the leadership of Hilary Godwin, the School became one of the first in the country to move all its courses online on March 9 to help curb the spread of COVID-19. The UW made Zoom, a video conferencing tool, available to all current faculty, staff and students. Teaching faculty and assistants translated their coursework to better fit the new, remote environment. They also redesigned experientiallearning opportunities for students such as capstones and clinical rotations. Students worked with local public health agencies to track the disease while faculty and staff pivoted to conduct rapid research, several of which were awarded grants from the UW's Population Health Initiative.

The School began a series of weekly webinars in March to share the latest updates on the School's and the UW's response to the COVID-19 pandemic. The School has since hosted about three dozen webinars that have contributed to a greater sense of community as faculty, staff and students adapted to remote life.

On May 25, George Floyd was killed in Minneapolis, Minnesota, after being handcuffed and pinned to the ground by a police officer's knee, kicking off a series of protests against police violence. Countless people across the U.S. and around the world demonstrated and called for racial justice. In Seattle, faculty, staff and students joined thousands of doctors, nurses, health care workers and other public health experts to demand an end to systemic racism.

More than 300 students, staff and faculty signed a petition calling for mandatory, recurring anti-racism training for all students and employees in the School. Dean Godwin tasked the School's EDI Committee and a dedicated workgroup with developing and implementing the universal antiracism training, which began rolling out in the fall of 2020 (SEE PAGE 54 to learn more).



Drive-up testing for COVID-19 is offered by UW Medicine. Photo credit: University of Washington



Thousands of doctors, nurses, health care workers and public health experts march in downtown Seattle on June 6 to demand an end to systemic racism. Photo credit: Elizar Mercado

More than 700 students graduated in June in the School's first-ever virtual graduation celebration and a new, five-year strategic plan launched in July. The 2020-2025 plan centers on a commitment to making public health impact and has equity, justice and antiracism as a through line. Jared Baeten, who served as vice dean of strategy, faculty affairs and new initiatives from 2019-2020, was vital to the development of the strategic plan. He also led the development of the School's new faculty compensation plan (SEE PAGE 63 to learn more about Baeten's next chapter).



Faculty Retirements

The University of Washington School of Public Health honored 11 faculty members who retired last year for their amazing contributions to public health and global health. Learn more about their impact on education, research and policy: sph.uw.edu/faculty-retirements-and-promotions



platforms.



training, Holmes was founding chair of the Department of Global Health, and honored for being "father" of sexually transmitted infection (STI) research, including leadership on HIV. Colleagues created an image of more than 150 scientists he had mentored in his more than 50 year career. He fought stigma and built bridges across disciplines to help millions of patients.



Ann Downer Emeritus Professor, Global Health When she looks back, Downer sees most of her career linked by

values-focused work.

A pioneering educator, she was founding executive director of I-TECH, the International Training and Education Center for Health, in the Department of Global Health, which runs programs in 30 technical areas supporting health care systems. She has worked at the edge of social justice issues, including reproductive rights and HIV prevention and treatment. I-TECH has become an international project that trains health workers in 16 countries using digital learning

> Aaron Katz Principal Lecturer Emeritus, Health Services Katz has been framing health in terms of policy for a 30-year career, most recently as a

lecturer in the Department of Health Services. He calls this focus his 30,000-foot view of how structures promote or diminish health. From HIV to universal access, he's taught graduate students to see the differences that new policies can make. He also says working with policymakers is vitally important and academics have to continue to do that.



Barbara McKnight Professor Emeritus,

Biostatistics McKnight considers her work on Human Papilloma Virus (HPV) exposure and cancer

some of the most important of her long career in biostatistics. She helped researchers prove the relationship between certain HPV infections and anogenital cancers, leading to further research that helped develop a successful vaccine. McKnight also developed curriculum in her department and says listening to the questions of students helped her center her teaching around those areas. She also worked closely on studies of cardiovascular disease.



Senior Lecturer Emeritus, Health Services From her first job compiling patient records for a hospital to her recent work

Kathleen Peterson

developing curriculum for the Health Informatics and Health Information Management program, Peterson has been chasing emerging technology for her entire career. Her leadership helped grow enrollment in the program, at both the bachelor's and master's levels. She says seeing the success of the graduates is one of the best parts of teaching.

MaryLou Thompson

Research Professor Emeritus, Biostatistics Thompson saw enormous scale change in the data that her

field of biostatistics could tackle, from working with a thousand paper records to computerized searching of millions of electronic documents. During her time at the UW, she worked in South Africa (where she did her graduate work) and offered training for health workers there. She served on a task force for the School of Public Health in equity, diversity and inclusion and will continue striving for improvement after retirement.





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Mike Rosenfeld

Professor Emeritus, Environmental & Occupational Health Sciences Rosenfeld took his

knowledge of the

vascular system in humans and studied and taught both nutritional sciences and environmental influences on heart health in his 30-year career. Rosenfeld helped develop mice that were genetically altered to show signs of atherosclerosis, and with that model also tested the impact of diesel exhaust on the rodents. This research helped the public understand that air pollution contributes to heart disease.



Professor Emeritus, Environmental & Occupational Health Sciences Seixas spent his 43-year public health career

Noah Seixas

focused on vulnerable workers. With his doctorate in industrial hygiene, he developed new ways to measure worker exposure to coal dust - work that led to policy changes to protect those workers. He also pioneered ways to protect gig workers and people likely to suffer race or gender discrimination on the job. Seixus reminds us that socioeconomic factors have a profound impact on health.



that he calls the "gospel" for designing observations and analysis to best prove links between exposure and illness. Although he was an author on about 700 papers, Weiss remembers the mentoring most fondly. Weiss says he loved knowing that others took what they learned from him and applied it to big questions.

Noel Weiss

Professor Emeritus, Epidemiology Weiss, mentor to a generation of budding epidemiologists, enjoyed teaching the methods

grandchildren."

Ann Vander Stoep Retired as Professor, Epidemiology, and Adjunct Professor, Global Health Vander Stoep made children, and their mental health, the center

of her work for many years as an epidemiological psychiatrist. She combined knowledge on depression with study of the public social fabric. She led an innovative long-term study of mental health among public school students in Seattle middle schools, and shared her methods with a project in Kenya. Vander Stoep also played an important role in launching the UW Global Mental Health Program.



Jon Wellner Retired as Professor, Biostatistics During his 37 years at the UW, Wellner was a professor in both biostatistics and

statistics. He co-authored a book about empirical processes, now a standard text in many programs. His work is at the interface of probability and statistics, and his mentoring of students is central to his legacy. He cites more than 100 academic "children and

Adapting to remote learning during the COVID-19 pandemic

WRITTEN BY ALLEGRA ABRAMO

s Washington became the first state in the nation to identify an outbreak of the novel coronavirus, faculty in the UW School of Public Health quickly grasped that life was about to change.

"We were ramping up, knowing that we were going to need to shift to online teaching at the end of winter quarter 2020," said Sara Mackenzie, director of the Public Health-Global Health Major at that time.

And then, within two days, the University of Washington became one of the first in the country to make the switch to remote instruction. Few of the core Public Health–Global Health faculty members had online teaching experience, and most had never set up a Zoom meeting. They had a lot to learn, Mackenzie said, but also a lot of support from the



School and University.

"I'm just blown away by the faculty, staff and students, and how they've risen to the occasion," said Mackenzie, who is currently on leave to assist with COVID-19 response at the U.S. Department of Labor Job Corps.

The transition was not without hiccups, from dropped connections to security lapses. But it also sparked creative adaptations and efforts to strengthen teaching that faculty and students say will continue to influence higher education long after in-person classes resume.

BUILDING A VIRTUAL COMMUNITY

How do you build community when you can't meet face to face? That was a key challenge confronting faculty as they planned for this new way of teaching.

One answer for Public Health–Global Health was to require students to log on to classes at their scheduled times.



"The evidence suggests that, in times of uncertainty, having opportunities to come together and connect can really be meaningful and important," Mackenzie said.

That meant faculty couldn't just lecture, she said. They had to be intentional about finding ways for students to contribute to the conversation.

Instructors, for example, had students drop ideas into the chat box and asked them to quickly answer questions via online polls, providing immediate feedback on how well they grasped a concept. Small-group discussions took place in virtual breakout rooms, with one important difference from the classroom — instructors couldn't walk around the room to check in and answer questions. As a result, faculty learned they must provide clear, written guidance students can refer to during breakout conversations.

Some of those tools enhanced participation, said Stephanie Farquhar, the School's acting associate dean for education from January 2020 to June 2020. "There's something about



Tess Harpur, graduate teaching assistant (May 2020) with her dog Hobbes

"It takes these big disruptions to force us to change."

having the safety of that physical barrier of being online," said Farquhar, who is also a clinical professor of health services and environmental and occupational health services. "I feel like more students were asking questions and participating."

Online teaching also required instructors to focus on the most essential material. They simply could not cover as much in an online setting, though it's unclear why that's the case. It might take longer to "be really clear and share information in this format," Farquhar said, and for students to get settled into breakout rooms or to switch between Zoom screens.

"If you have to get rid of two-thirds of content that you already thought was critical," Mackenzie said, "you really have to step back and think, 'What is it I'm trying to do? And how do I do it in a way that students are actively engaged?""

For Sarah Sutton, who was a second-year MPH student in health services and a teaching assistant for Public Health-Global Health, online teaching was "exciting and challenging." It was also nerve-wracking, she said, because you're learning as you go. "To be honest, having technical issues at the beginning of class was enough to throw me off for the rest of class," Sutton said.

Many instructors expressed similar frustrations, said Farquhar. They supported each other through weekly meetings and observed each other's classes to learn how Zoom's features were being used.

Challenges remained, but some former skeptics were converts to online instruction.

"I never thought I would say this," Mackenzie said, "but I'm actually loving the online environment."

TRANSITIONS TO ONLINE LEARNING

Not all students were as enthusiastic. It was "more of a bummer on the student side," Sutton said of her experience as a graduate student in her final quarter. "It's sad not to see your friends and peers."

That echoes what Farquhar heard when she polled her students, all graduating seniors. Many seemed disappointed to miss out on the in-person experience.

For Paloma Silva, who was a senior Public Health-Global Health major, the experience was mixed. She liked being able to show up for her 8:30 a.m. class in pajamas but also found it harder to stay focused. While more comfortable answering

professors' questions in the chat box than speaking up in class, Silva found breakout discussions could be "awkward" because students didn't know each other.

Although Silva preferred in-class lectures, she appreciated her professors' efforts to retool their classes for online learning. "Their quick adjustments and constant request for class feedback told me that they really cared and strived to make the online learning environment as enriching as possible," said Silva.

Early on, Silva missed a week of class because she didn't have an internet connection. Relying on her cell phone as a wi-fi hot spot made it unaffordable. Silva was able to get an emergency grant from the School to help with the bill until she could get internet service set up at home. Other students who needed a computer have been able to borrow one from the University.

Despite the challenges, students made a "phenomenal effort" to be present, Mackenzie said. Students live across the country and the world, in time zones up to 15 hours away. Yet most managed to log in at class time, and instructors accommodated those who could not.

At the same time, security was a challenge. There were several instances of Zoom-bombing, where an unauthorized person gains access to a class and shows vulgar or inappropriate images. In one case, said Farquhar, a student

right now."

As both students and instructors realize they can be successful in an online environment, online course offerings are likely to expand. "It's making me consider things that I never thought about before," Mackenzie said.



Clockwise from top left to right: Tess Harpur, Suzinne Pak-Gorstein, William Tsang and Sara Mackenzie during an instructor Zoom meeting in May 2020.

was threatened. Such incidents decreased as the University and Zoom took steps to improve security, she said. But there's one kind of Zoom-bombing that should be encouraged, according to Sutton: Let students bring their pets on camera. "That's a way to bring a little humor into it," she said, "and also acknowledge the situation that people are in

DISRUPTIONS SPUR CHANGE, SUCCESS

While it's harder to do active, cohort-based learning online, she's realizing that it's not impossible. Perhaps, she mused, one of the three Public Health-Global Health cohorts could be offered online in the future.

Even service learning can be done remotely, the program discovered. After initially planning to scrap the community service requirement, faculty worked with partners to develop projects that more than 100 students could do remotely. "Sometimes," Mackenzie said, "it takes these big disruptions to force us to change."

FINDING OUR PLACE AND PURPOSE IN A PANDEMIC

WRITTEN BY ALLEGRA ABRAMO AND ASHLIE CHANDLER ILLUSTRATIONS BY TED BOYER

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s COVID-19 began spreading across Washington communities, Janet Baseman, associate dean for public health practice at the UW School of Public Health, sent an urgent email with a survey to everyone in the School.

"Are you able to help? What are your skills? Are you available to work on site?" were among the questions Baseman asked. Around 700 responses poured in from faculty, staff and students.

That enthusiasm is evident in the unprecedented response to the pandemic by academic public health professionals across the School.

Faculty and students have bolstered the beleaguered public health workforce by training and deploying contact tracers. They are providing public health departments with timely research on everything from infections in nursing homes and the public's adoption of masks to the pandemic's impacts on immigrant communities. They're supporting the development of vaccines, treatments and technologies to combat the virus. And they serve as trusted experts who translate the science for the public, journalists and government leaders.

"One of the big benefits to working with the School of Public Health," said former Washington State Health Officer Kathy Lofy, "is that they not only help us implement new things, but they study it at the same time, which gives us more information about the effectiveness."

Designing innovations for public health practice

One of those 'new things' might be on your cell phone right now.

In collaboration with UW faculty from Schools of Public Health, Medicine and Computer Science, the Washington State Department of Health launched an exposure notification phone application last November. Called WA Notify, it uses phones' Bluetooth signals to exchange anonymous codes with other nearby phones running the app. Users can then receive notifications - in 29 languages - when someone they have been in close contact with in the previous two weeks tests positive for COVID-19. The app, which uses a platform developed by Google and Apple, doesn't share when, where or by whom you were exposed.

"To me, it's kind of empowering," said Baseman, who chaired a diverse group of stakeholders advising the Department of Health on WA Notify and oversaw a test run at the UW. "I really love the idea of having a tool that doesn't ID back to me personally, where I can do good for others if I test positive by letting them know they were exposed," she said. "And likewise, I get the benefit if somebody that I've been in close contact with tests positive."

Traditional contact tracing has a number of limitations, including that people often don't know or can't remember

COVID-19.



everyone they've been in contact with in the last 14 days. It's also extremely resource intensive, and health departments at times have found themselves unable to keep up with the volume of cases.

"This technology is a privacy-preserving way to fill in some of those gaps," said Baseman, also a professor of epidemiology and adjunct professor of health services at the School. As of April 2021, 1.9 million users downloaded the WA Notify app, representing 25% of the Washington state population. Baseman and her colleagues will continue working with the Department of Health to evaluate the app, including whether it benefits communities disproportionately affected by

Serving communities most in need

Local health departments and government entities have also turned to the School for help collecting and analyzing information they can use to better target resources or communicate with communities most in need. India Ornelas, associate professor of health services, consulted with Public Health - Seattle & King County to understand the impacts of COVID-19 on Latina immigrants in the county. Surveying women who had participated in a program called Amigas Latinas Motivando el Alma (ALMA) to reduce stress, anxiety and depression, Ornelas found the pandemic had taken a big toll on their economic well-being. Nearly 40% of survey respondents said their work hours had been cut and 28% were not working at all. Seventy-two percent of respondents expressed concerns about obtaining food and 75% expressed concerns about paying for housing. The women also reported finding the online ALMA sessions valuable during the pandemic. Results of the survey were shared with the local public health department and the King

"Our role is to help to translate the science and the huge amount of information that's coming out into actionable information."

Brandon Guthrie, assistant professor of global health and epidemiology

County Latinx Community Response Team.

"A lot of these women are already living in precarious positions... and are at increased risk of poor mental health," Ornelas said. "So it's really important to figure out if there are ways we can reach out to them."

Other researchers at the School, this time in the Department of Environmental & Occupational Health Sciences (DEOHS), developed a mapping tool for the City of Seattle to use to increase vaccine access and equity for the most vulnerable communities. The tool lets city officials and others compare, by ZIP code and census tract, COVID-19 case rates with social vulnerability conditions, such as high poverty, crowded households and limited vehicle access.

"The tool shows a pattern," said Esther Min, an alumna who led the project as a research consultant for DEOHS. "Communities that have experienced high COVID-19 outcomes have high social vulnerability."

The mapping tool, which was developed with Edmund Seto, associate professor of DEOHS, has helped the city decide where to place mobile and pop-up vaccine clinics as well as mass vaccination sites. Min said it could also inform when and where to mobilize vaccination events with local community leaders.

Communities that are disproportionately impacted by climate change and other health and environmental issues "are always hit first and worst," said Min. "When health departments and decision-makers think about vaccine access and equity, it's important to consider prioritizing frontline communities who often bear a greater burden."

Making sense of the science

COVID-19 has generated an unprecedented volume of research of varying quality. Without the time or skills to assess the quality of scientific evidence, the general public is vulnerable to misinformation about the disease. And alreadyoverstretched public health workers needed help to stay on top of the constantly evolving science.

That's why the Washington State Department of Health in May 2020 funded a UW team led by Brandon Guthrie,

Social Vulnerability Index



The new mapping tool developed by DEOHS shows Seattle zip codes by their level of vulnerability according to the CDC Social Vulnerability Index.

assistant professor of global health and epidemiology, and Jennifer Ross, acting assistant professor of global health and medicine, to help sort the wheat from the chaff.

A rotating crew of five graduate students and four faculty screen roughly 400 articles a day, winnowing those down to the most relevant 10-15 to summarize as part of a daily COVID-19 Literature Situation Report. More than 5,600 people subscribe to the report, which is written to be useful to public health professionals but accessible to the general public.

"Our role is to help to translate the science and the huge amount of information that's coming out into actionable information," Guthrie said.

The Department of Health's Lofy called the literature reports "incredibly valuable." She and others leading the state's COVID-19 response read it every day, she said.

Communicating in a crisis

Public health academics are used to talking to each other about research, but they also have to be ready to communicate with a range of non-experts, especially in a pandemic.

That's one of their most important roles, said Dean Hilary Godwin, who has testified before Congress, sits on Seattle Mayor Jenny Durkan's COVID-19 Task Force and regularly presents to business and civic leaders.

"My goal is to reinforce the messaging or priorities that have been put forward by public health agencies," Godwin said, "and to make sure that people understand the public health concepts that went into those decisions they're putting out."

Nicole Errett, an assistant professor of environmental and occupational health sciences, also made communicating about the pandemic one of her priorities. A disaster and public health policy researcher, Errett was fielding dozens of media requests at the beginning of the pandemic because she







— safe and healthy.

"Occupational health isn't often on the front page of the newspaper," said Baker, an assistant professor of environmental and occupational health sciences. "Interest from the media and general public in what I do has made me optimistic that there will continue to be a focus on the health of workers even as we get past the worst of the COVID-19 pandemic." Associate Dean Baseman said the pandemic has reinforced the need for schools of public health to better prepare both students and faculty to communicate effectively with the public, media and politicians.

"Especially in a time like we are in now, where politicization of these foundational public health measures is so extreme," she said, "it makes the voice of experts like us, who work in the field of public health, even more important."



(L to R, starting from top) Janet Baseman, India Ornelas, Esther Min. Brandon Guthrie, Jennifer Ross, Nicole Errett and Marissa Baker.

knew how important it was to ensure accurate messages were getting out to the public.

"During an emergency, the public needs clear and consistent messaging that acknowledges that conditions and information will evolve, and guidance may change," Errett said. "If public health experts don't provide that information, someone else will fill the void. And the information that a non-expert may provide runs the risk of being inaccurate or inconsistent with response goals."

That could lead to misinformation, and even disinformation, and it could also erode the public's trust, she added. For some faculty, being thrust into the role of public communicators has been eye-opening. Marissa Baker, who is regularly quoted in the local and national media on the pandemic's impact on workers, said this experience has reinforced for her the important role that industrial hygienists play in keeping workers — and the public they interact with

A flash mob of engagement

Livable City Year matches UW, SPH student energy and expertise with local government projects

WRITTEN BY ALLEGRA ABRAMO ILLUSTRATION BY GABRIEL LOPEZ

ourtney Schupp never imagined that her graduate research would involve digging through trash. Yet in 2017, Schupp found herself donning a lab coat and rubber gloves and meticulously sorting each bit of garbage, recycling and food waste from City of Auburn public school lunchrooms. Schupp was especially interested in the volume of untouched apples, unopened milk cartons and other still-edible food that could be "rescued" and used to feed hungry students or community members.

Schupp's project, carried out with a team of nine undergraduates, was one of 16 in the University of Washington's inaugural Livable City Year program, which taps the creativity and expertise of students and faculty across disciplines to address local governments' sustainability goals.

Students gain valuable real-world experience and professional connections, while cities benefit from fresh thinking and added capacity to tackle high-priority projects.

Cities "come in not realizing how contagious the enthusiasm of the students is," said Jennifer Otten, Livable City Year co-director, associate professor in the School of Public Health's Department of Environmental & Occupational Health Sciences and core faculty member of the Nutritional Sciences Program.

"A city not only gets these wonderful, well-done projects," she said, "but community members connect with students in a different way" and get invested in the projects.

In the program's first four years, 861 students contributed more than 100,000 hours to 77 Livable City Year projects, with 12 being School of Public Health projects. Participating students and faculty have come from three campuses, 15 schools and dozens of disciplines, including public health, urban planning, business, law, nursing and more.

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23

In Auburn, a suburb south of Seattle, Schupp's food waste project uncovered some surprising results.

Across the 15 Auburn schools they studied, the students found more than 85,000 calories of edible food in a single day of waste sorting, which could make a big difference in a city where 16% of people experience food insecurity and more than half of students are eligible for free or reducedprice lunch.

Kathleen Edman, Auburn's solid waste and recycling coordinator, said the project gave the city valuable baseline data on schools' recycling and composting performance. "We don't have the staff at the city, nor do we have the funds, to do waste sorts for the schools all the time," Edman said. "It was an amazing collaboration."

The students also gave each school an individualized report, which they used to improve their practices. Otten said that more of the schools have created "share tables" where students can leave unopened food for others to take and programs that send children home with backpacks of food. Schupp, who graduated in 2018 with an MPH in

Nutritional Sciences, said she appreciated the chance to get out of the "university bubble" and do on-the-ground research. "It's invaluable to be off the campus and see what's actually going on in the world," she said.

In

Her findings were published in the Journal of Agriculture, Food Systems, and Community Development in 2018. Otten, who co-authored the paper, contributed her expertise to a National Academies of Science study on reducing consumer food waste.

At Bellevue City Hall in June 2019, students lined the light-filled concourse with posters highlighting their 30 projects, while the mayor, city council members and department staffers asked them questions and pressed business cards into their hands. Many community members who had participated in the projects also showed up to support the students.

The diverse projects on display that day included several by SPH students, including one outlining strategies to improve emergency communications with Chinese- and Russianspeaking communities, and another that assessed the health impacts of a neighborhood development plan.

Using an equity and sustainability lens, students had also developed best practices for permitting food trucks in public spaces. Today Bellevue is piloting a downtown food truck program that incorporates insights from that work.

As of winter 2020, Bellevue, a city near Seattle on the other

side of Lake Washington, had begun implementing 17 of the projects, according to Danielle Verwahren, a management analyst for the city manager.

population 5,200. For King County, students provided research, analysis and recommendations regarding antidisplacement strategies that the county could consider for the urban unincorporated communities of Skyway-West Hill and North Highline. And in Sultan, students from different courses worked over multiple quarters on a single project to update the city's parks and open space plan. This year, Livable City Year is conducting a data analytics project with the City of Lynnwood's parks department and is continuing its partnership with the City of Sultan. The program is also exploring partnerships with other communities in the future. "There's so much potential to continue building Livable City Year, even during the pandemic through projects that can be worked on remotely," Otten said. "I'm just delighted by all of the opportunities I see."





"A flash mob of engagement" is how Livable City Year had been described to her, Verwahren said. "And that," she said, "was so incredibly accurate."

Now Livable City Year is adapting the model to be more accessible to smaller cities that don't have the capacity to participate on the scale that Bellevue did.

Last year, the program partnered with two local governments: King County and the town of Sultan,

SPH Food Stories

Recipe photos and food story excerpts from SPH community members



JAPANESE NASU MISO SOUP

"I have always been inspired by my mother's cooking because in it I see her hard-working character, gentleness and her ability to spread joy so effortlessly through the meals she lovingly makes for our family and others."

BA 2021

"Stoofvlees is a staple food in Belgium. This is my favorite dish that my dad makes, mainly because the entire house smells like culinary heaven all day."

Husky Cookbook

Connecting culture and community through food stories

CHICKEN PORRIDGE

Ivory Loh, Nutritional Sciences, MPH/GCPD, 2020

or Ivory Loh (MPH '20, Nutritional Sciences, Graduate Coordinated Program in Dietetics), food is not only a way to break barriers and build relationships — it's also a way to share stories and preserve culture and traditions. Loh led a project through funding from the 2019-2020 Husky Seed Fund to create the Husky Cookbook, which features over 60 diverse recipes

and food stories, showcasing the diversity across campus.

"I hope that Huskies will continually reflect on how food, family and culture have and continue to shape who they are, and use food as a way to connect with others to build lasting relationships," says Loh.

In a pandemic-free world, Loh envisions the Husky Cookbook would evolve into a monthly potluck, where members of the UW community would get to know one another through food storytelling and learning about new cultures and cuisines. A group of SPH students launched a "Healthy Eating" social media campaign series in winter 2020 that features online cooking classes and recipes from the Husky Cookbook.

To read the recipes and food stories from the UW community, visit: thewholeu.uw.edu/HuskyCookbook

🖬 🔲 Submit your recipe and food story by scanning the QR code.



RUTH'S OKRA AND POTATOES Sara Woolcock, Nutritional Sciences, MPH 2020

"My mom grew up in Georgia, and her favorite Southern food is okra. But where I grew up, the closest place we could find okra was about an hour's drive away. When my mom did make the pilgrimage to buy okra, it would be the special dish that evening. Now, my mom always cooks this recipe when she comes to visit me in Seattle, and it reminds me of the taste of home."



THAI BASIL PORK Megumi Matsushita, Environmental Toxicology, PhD Candidate

"My friend Jane would invite me over for weeknight dinners with a rotating list of 'food friends.' She'd cook these meals for us and provide a welcoming space for us to connect across different identities and cultures. When we all reunited at Jane's wedding years later, the food friends instantly reconnected by reminiscing over which of Jane's dishes we ate together."

Emily Sakaida, Food Systems, Nutrition and Health,

BELGIAN STOOFVLEES (BEER BEEF STEW)

Michelle Bulterys, Epidemiology, PhD Student



YAO HAN Elsie Pring, Student Academic Services Assistant, SPH

"Yao Han is a kind of Cambodian hotpot made of a satay sauce, coconut milk, broth, palm sugar, and pounded herbs and roots. When the weather grew colder, my family would huddle around a large hotpot with produce from season's prior and 'steamboat.' My family never had much but this dish reminds me of how family contributions growing, picking and cooking the seasonal foods mattered."

Research Briefs



UW among first to receive CDC gun safety research funds in more than two decades

The UW has received a three-year, \$1.5 million grant from the Centers for Disease Control and Prevention (CDC) to conduct critical firearm research among youth living in rural communities one of the first CDC grants of its kind to be awarded in decades.

Firearm-related injuries are the second leading cause of death among adolescents, and every day approximately 100 people in the U.S. die from these injuries. Yet for more than 20 years, the CDC did not fund firearm research due to the passage of a 1996 amendment that prohibited them from using funds to advocate for gun control. Following an act of Congress that clarified the meaning of the amendment, this financial freeze came to an end in September 2020 when the CDC awarded more than \$7.8 million to 16 research groups — including the UW and its partners — who are seeking to better understand and prevent firearm violence.

"This is a historic development and consequential milestone for the field of public health in general, and the science of violence and injury prevention in particular," said Ali Rowhani-Rahbar, associate professor of epidemiology, who leads the study.

Rowhani-Rahbar and his research team will examine youth handgun carrying in rural areas because these communities have high levels of firearm access and mortality, yet have been historically both under-researched and underserved. This study will use existing data and collect new data from rural adolescents to improve understanding of the cultural context, scope, risks, attitudes and patterns associated with handgun carrying. Researchers will also test the effectiveness of a community program that promotes healthy youth development.

"The goal of this project is to fill this knowledge gap and provide actionable evidence for informing strategies that can prevent firearm-related injury and promote safety among adolescents in rural communities," said Rowhani-Rahbar.

Partners collaborating on this study include the UW Social Development Research Group, Harborview Injury Prevention and Research Center, Washington State University, Arizona State University and Seattle Children's Research Institute.

UW-led network to confront emerging pandemic viruses

An international group of researchers — led by faculty from the UW Schools of Public Health and Medicine — have formed the United World Antiviral Research Network (UWARN) to combat emerging viral pandemics.

This network was established through a fiveyear, \$8.75 million grant from the Centers for Research in Emerging Infectious Diseases at the National Institutes of Health. UWARN's timely goals include tracking emerging viral infectious diseases, developing urgently needed diagnostics and therapeutics, and expanding knowledge of viral immune responses — key to vaccine development. UWARN is being led by four UW faculty

School of Medicine.



Patients get green light to self-swab for COVID-19

Swab samples self-collected by patients are just as effective in identifying infections of the novel cornonavirus as samples collected by clinicians, according to a March 2020 study co-authored by Gerard Cangelosi, professor of environmental and occupational health sciences.

The study found that tests using self-collected swab samples accurately detected COVID-19 in more than 90% of positive patients, which is consistent with the rate of clinician-collected samples. Based on this research, the U.S. Food and Drug Administration has already updated its guidance, allowing patients nationwide to self-swab for COVID-19.

testing efficiency.

Washington state.

members: Judith Wasserheit, professor and chair of global health and professor of epidemiology at the UW School of Public Health; Peter Rabinowitz, professor of environmental and occupational health sciences and of global health at the UW School of Public Health; and Wesley C. Van Voorhis and Michael Gale, Jr., professors of medicine at the UW

In addition to the University of Washington, UWARN encompasses researchers from Fred Hutchinson Cancer Research Center, Rockefeller University and five partner laboratories in Brazil, Senegal, South Africa, Pakistan and Taiwan.

"Nasal swabs are extremely easy for anyone to self-collect, in any setting. So it's an excellent way to expand screening while reducing worker exposure," Cangelosi said. In addition to protecting frontline health care personnel, this form of testing also preserves personal protective equipment, such as face masks, gowns and gloves, and enhances COVID-19

Led by United Health Group Research & Development and OptumCare - one of the largest health care systems in the U.S. - the study included nearly 500 patients at OptumCare facilities in

HIV prevention injection nearly twice as effective as standard pill

A new HIV prevention treatment called cabotegravir (CAB LA) proved 89% more effective than the current standard of care in a clinical trial so effective that the study was halted early.

"It still amazes me how strong an effect we saw and that the study stopped at such an early interim analysis," said the study's lead statistician Jim Hughes, a professor of biostatistics with the UW School of Public Health. "This is truly a once-in-alifetime event!"

Both CAB LA and the standard pill Truvada are highly effective pre-exposure prophylaxis (PrEP) treatments. However, people on Truvada must remember to take a daily pill, while CAB LA is administered by injection every two months, making it an appealing alternative option. To test CAB LA's effectiveness, the study enrolled more than 3,000 women in seven countries in sub-Saharan Africa. Each woman received either CAB LA and a placebo pill or Truvada and a placebo injection. While new HIV infection rates were extremely low for both groups, they were significantly lower for those receiving CAB LA.

CAB LA is now available to all participants in the study, which was run by the HIV Prevention Trials Network. Final analysis and regulatory approval are needed before it becomes widely available. At that point, Hughes predicts that CAB LA could contribute to major reductions in new HIV infection rates.



Positive review of dapivirine ring presents new milestone for women's HIV prevention

Women in sub-Saharan Africa face persistently high rates of HIV infection. However, a monthly vaginal ring is one step closer to becoming a tool they can use to protect themselves.

The ring, which women can insert and replace on their own, slowly releases an antiretroviral drug called dapivirine into the vagina.

After 16 years of research and development, the ring received a positive scientific review from the European Medicines Agency (EMA) for use in women, ages 18 and older, who live in low- and middle-income countries. A team of investigators from all over the world — including the UW School of Public Health — conducted research that was submitted to the EMA as part of the ring's review process. If approved by African authorities, the ring would be the first biomedical prevention method specifically for cisgender women (women whose gender identity matches their sex assigned at birth) and the first long-acting prevention method.

"This is a critical step toward providing women with an HIV prevention tool that is discreet and fully under their control," said Jennifer Balkus, assistant professor of epidemiology at the UW School of Public Health.

Women, workers of color filling most 'highhazard/low reward' jobs in Washington

Women hold two-thirds of the jobs in Washington state that present high risk of exposure to COVID-19 and offer low rewards — in the form of inadequate wages and benefits — according to a report co-authored by the UW School of Public Health and South Seattle College.

The report examined data on Washington workers during the pandemic and identified 55 occupations that are both low reward and high hazard due to elevated risk of exposure to the novel cornonavirus. These occupations range from home health aides to retail salespersons to restaurant waitstaff. Roughly 900,000 people fill these 55 occupations, and 66.5% of these workers are women. These workers, 70% of whom hold jobs deemed essential during the pandemic by Gov. Jay Inslee, are also disproportionately non-white; people of color constitute 35% of workers in these low reward/ high hazard jobs despite representing only 30% of Washington state's total workforce.

"We really need to ensure that there are targeted policies or regulations to help these workers, especially since we now know who they are and what occupations and industries they fall into," said Marissa Baker, assistant professor of environmental and occupational health sciences at the UW School of Public Health and co-author of the report.

In order to determine which occupations were at higher risk of exposure to COVID-19 and to make specific recommendations for workplace safety, the researchers examined several dimensions of a job, including physical proximity to others, dealings with external customers and work with a team or group, among several other factors.

Baker and her co-authors offered four key recommendations that policymakers and business leaders can adopt to support the health and financial well-being of workers: enacting airborne transmissible disease standards for workplaces,



instead of relying on voluntary guidance; supporting comprehensive COVID-19 disclosure, testing and tracking; promoting and enforcing use of workplace safety committees; and ensuring workers have access to benefits, such as hazard pay and paid leave for quarantine periods.

"Even though this has been a devastating time for the American workforce, we can harness this moment and make big structural changes that can forever improve the relationship between work and health," Baker said.

Research Briefs

Survey uncovers critical disparities in food insecurity among King **County households**

An online summer survey, the Washington State Food Security Survey or WAFOOD, co-created by the University of Washington, Washington State University and Tacoma Community College, revealed substantial disparities in food insecurity among households in King County, Washington. Food insecurity is a household-level economic and social condition of limited or uncertain access to food. Researchers launched the online survey to gather data about how the COVID-19 pandemic and subsequent economic downturn have affected food access and economic security for Washington state residents.

"We know from increased demand at food banks and in food assistance programs that there has been a steep increase in food insecurity, but we don't know the details. How are needs changing?" said Jennifer Otten, associate professor of environmental and occupational health sciences at the UW School of Public Health.

The survey, which ran from June-July 2020, compiled results from 2,621 Washington state residents across 38 counties, and of those respondents, 861 lived in King County. Key findings include that 30% of households in King County were food insecure; 57% of those households had children. By analyzing survey responses using participant-provided ZIP codes, researchers found that food insecurity was particularly prevalent in South Seattle and South King County. The survey also determined that respondents of color (42%) were more than 1.5 times as likely to be food insecure as white respondents (26%).

A number of factors can contribute to food insecurity, including lack of income; limited access to grocery stores; lack of transportation; and instability in food production, processing and delivery; among many others. The survey found that rising food costs and reduced safety in grocery shopping were



significant barriers to adequate food access for King County residents. In addition to food access issues, many respondents living in food insecure households experienced other problems such as increased stress, anxiety and depression. Respondents living in food insecure households also experienced negative shifts in their eating habits, with 55% rating their diets as fair or poor. Of those reporting fair or poor diets, 78% said their diets worsened during the pandemic.

"The information gathered by this survey will help state and community partners understand what people are experiencing and help with resource allocation for Washington state residents," said Otten. The WAFOOD team anticipates releasing data from their second survey wave in the coming weeks. "This next wave of data will tell us more about how food access issues and demand for food assistance have shifted later into the pandemic."

Northwest Center for Public Health Practice steps up to help prevent sexual violence

(OSPI).

Adolescence is often when people first experience acts of sexual violence; however, the Northwest Center for Public Health Practice (NWCPHP), housed in the UW School of Public Health, intends to stop this pattern before it starts by evaluating the impact of an innovative program aimed at middleschoolers. While other sexual violence interventions tend to focus on the individual, the Youth-Centered Environmental Shift (YES!) program is designed to prevent sexual violence at the school-wide level. Another key component of this evidence-based program is engaging students in the implementation process.

"We're really excited to explore this collaborative



Intervention for prisoners could break cycle of opioid addiction

Researchers have created an intervention for people behind bars that could help them beat opioid addiction. The intervention was tested with inmates suspected of opioid use disorder across four Washington state jails. The inmates met with a trained corrections staff member who offered guidance about how to access treatment medications, such as methadone, buprenorphine or long-acting naltrexone, upon leaving jail.

The study found that 16% of inmates who received the intervention started treatment medications after their release, compared to 8% of intervention.

decrease that risk."

Research Briefs

approach that centers students as the experts of their own experiences," said Andrea Wessel, sexual violence prevention specialist at the Washington State Office of Superintendent of Public Instruction

In collaboration with OSPI and Harborview Injury Prevention and Research Center, researchers will collect data from students and staff at three middle schools piloting the YES! program over three years. "Programs like this can have a much bigger effect on youth development and our communities by helping prevent harm before it happens," said Betty Bekemeier, director of NWCPHP.

inmates in the group that did not receive the

"In the weeks after release, people with opioid use disorder are extremely likely to relapse and are at greatly increased risk from dying from an overdose," said Caleb Banta-Green, principal research scientist at the UW Alcohol and Drug Abuse Institute and affiliate associate professor of health services at the UW School of Public Health, who led the study. "Effective treatment medications dramatically

A legacy of health and equality for all

Remala Family Foundation endows fellowship to increase diversity of MPH students

WRITTEN BY STARRE VARTAN FAMILY PHOTO BY JAKE MAGRAW @IMDMCREATIVE

efore Miriam Flores came to the Master of Public Health (MPH) program at the University of Washington School of Public Health, she case-managed parents and pregnant women who were agricultural workers at a community health center in Othello, Wash. Many spoke an Indigenous Mexican language, Mixtec, and weren't proficient in Spanish or English. Flores, who is also Mexican and did asparagus weeding when she was younger, became a trusted source as she shared information about prenatal topics, child development and health education with the parents-to-be in Othello.

"The community faced so many challenges - language barriers, access to health care, deportation or fear of deportation, and lack of affordable housing," says Flores. "I realized I could better help communities like this by pursuing a master's degree in Maternal and Child Health."

It's exactly that kind of work that the Remala family — Rao and Satya Remala and their daughters Srilata and Srilakshmi - wants to see more of in the field of public health. That's why the Remala Family Foundation recently established an endowment in the School, specifically for graduate students pursuing their MPH. They want this funding to support students from underserved backgrounds — like those who are among the first generation in their family to attend college or have diverse lived experiences.

The Remala family have made direct and impactful giving part of their family mission. "Giving endowments is in our DNA," says Rao, who credits education with his success. From a small town in India, he studied there through his master's

degree, and then worked to develop his country's first microcomputer in 1978. He later attended the University of Washington to pursue his PhD in computer science before joining Microsoft in 1981 as one of the company's first 50 hires. During his 23 years at Microsoft, holding a variety of positions, he helped

develop and manage early versions of the Windows operating system, until retiring in 2004.

Graduate student Miriam Flores

Srilata and Srilakshmi followed their father's path, prioritizing education and the whole family shares a commitment to educational and public health advocacy and philanthropy. Elder sister Srilakshmi serves as a UW College of Education ambassador where the family also established an endowment to diversify the education workforce in the STEM fields.

Rao hasn't forgotten his roots; one of the Remala Family Foundation's projects is building an eye hospital in his home village in Andhra Pradesh. Those roots inform the work their foundation does at the UW, too. "Immigrant families work really hard and want their families to succeed," says Srilata. "That ties back to this endowment where we're trying to create more opportunities for people of color."

Srilata has first-hand knowledge of these dynamics, as the founder of the Maternal Health Coalition, an organization

"IF OUR ENDOWMENT CAN FILL THE GAP IN SOMEONE'S EDUCATION TO MAKE IT MORE ACCESSIBLE, THAT'S

— Srilata Remala

REALLY FANTASTIC."

that focuses on "Ensuring all pregnant and parenting people have access to just and equitable healthcare." She's passionate about this subject, especially following the birth of her first child, and thinks it's imperative to support and empower underrepresented people to fill leadership roles in public health to ensure healthier outcomes for all people.

"I think part of the problem is that [the Maternal and Child Health field] has really been directed by people who don't understand what Black and Brown mothers go through, and what they feel when they are in these situations where they're not being seen or heard. So one huge thing that we're pushing for is more people of color, especially Black and Brown women, to be trained in maternal and child health services," says Srilata. Historically, the cost of education has been a barrier to these populations, which is where the Remala family endowment comes into play. "If our endowment can fill the gap in someone's education to make it more accessible, that's really fantastic," says Srilata.

The Remalas' goal aligns with the values of the School and

the objective of its Campaign for Students (SEE PAGE 47 TO LEARN MORE), which aims to attract and retain a diverse, equity-driven student body by increasing private financial support.

If you are interested in creating your own legacy in the UW School of Public Health, please contact Megan Ingram, associate dean for advancement, at mkingram@uw.edu or 206-616-7197.

The Remala-Dorner-Kamdar Family. Satya and Rao Remala with their daughters Srilakshmi and Srilata and their husbands Viren and Charles.





Grandkids Kailash (6); Kahaan (5); Saanvi (4); Saila (8 months).

Flores, the MPH graduate student focusing on epidemiology, has seen the same gap Srilata seeks to address in her own work — and that's informed her choices. "My plan is to finish the MPH program, and if possible, continue my education through a PhD and my epidemiologic research in the areas of pesticide exposure among agricultural workers - specifically among women, pregnant women and their children," she says. She also hopes to one day open a community health center.

It's these dynamics that prove that every gift matters, says Rao, who sometimes considers his family's impact in light of some of the other big charitable organizations in the Seattle area: "The Gates Foundation and Bezos - they're doing amazing work all over the world. Sometimes we ask ourselves, with a small foundation, what kind of impact can we make? But if we can provide free education for one woman of color, and she is going to go and make such an impact in the community — it does make a lot of difference."

CHANGEMAKERS OF PUBLIC HEALTH

WRITTEN BY ASHLIE CHANDLER

isrupting the spread of COVID-19. Revolutionizing women's health care and environmental health research. Expanding access to mental health care. Tackling climate change, gun violence and houselessness. Fighting for health equity and human rights. Training diverse public health leaders.

These are just a few ways the University of Washington School of Public Health's 50 Changemakers of Public Health are making a positive impact on the world.

The 50 Changemakers, honored as part of the School's 50th anniversary, are distinguished alumni who have advanced the field of public health through research, practice or education. Others are younger alumni just starting to make an impact but who have the power to inspire future public health leaders.

These public health champions represent a small slice of the School's community of more than 10,000 alumni worldwide who are addressing some of the most pressing population health issues of our time.

Honorees were chosen in an open nomination process and selected by fellow School of Public Health alumni. They represent all departments across the School and most interdisciplinary programs.

In the midst of a pandemic and an unprecedented movement for social and racial justice, some of these changemakers are conducting studies to disrupt the spread of COVID-19, while many are working with community organizations to change the complex interplay of factors that keep some people from being as healthy as others.

Among this list are renowned scientists conducting

groundbreaking research to end the global HIV epidemic, prevent cancers and other chronic diseases, improve worker health and safety, and address gun violence in America. There are also leaders of nonprofits, health systems and other schools of public health. Five of these changemakers have or are currently leading their nation's efforts on health.

Public health saves lives, and though local health departments have been chronically underfunded, our alumni have made amazing accomplishments in towns, cities and states across the United States and globally. These changemakers have had to get creative to design programs and influence policy that protect communities from issues such as toxic chemical exposure and air and water pollution. Additionally, other innovators on our list are creating new approaches to understand big data and building the statistical foundation needed to make advances, improvements and breakthroughs in public health and medicine.

Importantly, this group — like most of our alumni — is committed to health equity. Several folks have been vital to providing equitable health care and public health outreach to Black, Indigenous, Latinx, and refugee and immigrant communities, as well as the elderly and those affected by war and natural disasters. What's more, educators on the list are helping to prepare the next generation of public health professionals who embody the diversity of the communities they will serve.

Meet our 50 Changemakers on the following pages. To learn more about each one in depth, visit:

sph.uw.edu/50-changemakers-public-health

COLLABORATING TO INFECTIONS' OF HIV

9th SA AIDS

ELIZABETH BUKUSI MPH 2000, PhD 2006. Epidemiology

PUTTING AN END TO AIDS IN KENYA



CHERYL ANDERSON MS 1997, Epidemiology; PhD 2001, Nutritional Sciences Program

USING NUTRITION TO FLIMINATE HEALTH **DISPARITIES IN CHRONIC** DISEASE RISK



MOHAMED ALI

FIGHTER FOR

COMMUNITY IN

JARED BAETEN

PhD 2001, Epidemiology

ACHIEVE 'NO NEW

WASHINGTON

STATE

THE SOMALI

MPH 2008, Global Health



CARE





SALIMA ALIBHAI Online Executive MPH 2013, Health Services

IMPROVING GLOBAL ORAL HEALTH THROUGH PREVENTION AND INNOVATION

GARNET ANDERSON PhD 1989, Biostatistics

SAVING LIVES BY REVOLUTIONIZING WOMEN'S HEALTH

> MARY T. BASSETT MPH 1985, Health Services

BRINGING EQUITY TO THE FOREFRONT IN NYC AND BEYOND

JANICE CAMP MSPH 1984, Environmental & Occupational Health Sciences

BUILDING BRIDGES WITH INDUSTRY TO IMPROVE WORKPLACE SAFETY



GARY CHURCHILL PhD 1988, Biostatistics

DISENTANGLING COMPLEX HUMAN **DISEASES & AGING**





JEFFREY HENDERSON MPH 1999, Health Services

PARTNERING WITH COMMUNITIES TO IMPROVE NATIVE HEALTH

CHRISTINE HURLEY MHA 1977, Health Services

A LEADER IN SEATTLE'S COMMUNITY HEALTH CENTER MOVEMENT

> PATRICIA JANSSEN MPH 1993 (Maternal and Child Health), PhD 2001, Epidemiology

IMPROVING MATERNAL AND CHILD HEALTH THROUGH PERINATAL CARE

JAMES KIARIE MPH 2001, Epidemiology

ADVANCING HIV PREVENTION AND TREATMENT WORLDWIDE





DENISE KOCH MS 1999, Environmental & Occupational Health Sciences

TACKLING AIR & WATER POLLUTION IN ALASKA



KUNG-YEE LIANG

PhD 1982, Biostatistics

TOP STATISTICIAN

LEADING HEALTH

ROSA MARLENE

MANIATE CUCO

TACKLING HIV IN

MOZAMBIQUE

MPH 1996, Health Services

RESEARCH IN

TAIWAN

LAURA KOUTSKY PhD 1987, Epidemiology PAVING THE WAY

FOR A VACCINE TO PREVENT CERVICAL CANCER



JEFFREY LEEK MS 2005, PhD 2007, Biostatistics

INNOVATING DATA SCIENCE METHODS AND EDUCATION

XIHONG LIN MS 1992, PhD 1994, Biostatistics

CREATING HIGH-IMPACT STATISTICAL METHODS FOR GENOMIC DATA



DANIEL MALONE MPH 2007, Health Services

FIGHTING TO END HOMELESSNESS AMONG SOCIETY'S MOST VULNERABLE

MPH 2016, Global Health

IMPROVING HEALTH EDUCATION AND OUTREACH TO SEATTLE'S IMMIGRANT COMMUNITIES



ROBERT NEWMAN MPH 1998, Epidemiology

> HELPING GOVERNMENTS STRENGTHEN HEALTH SYSTEMS & DEFEAT MALARIA, TB AND HIV

MENTAL HEALTH AND SUICIDE IN CHINA COMMUNITIES

MICHAEL PHILLIPS

MPH 1985, Epidemiology

ADDRESSING



WASHINGTON'S LATINX

JENNIFER SCHECHTER MPH 2011, Health Services

REDUCING PREVENTABLE DEATHS IN TOGO BY REMOVING BARRIERS TO CARE



KATHERINE TESCHKE PhD 1994, Environmental & Occupational Health Sciences

INNOVATING THE STUDY OF WORKPLACE EXPOSURES

JÜRGEN UNÜTZER MPH 1996, Health Services

EXPANDING ACCESS TO EFFECTIVE MENTAL HEALTH CARE



PIONEERING METHODS TO UNDERSTAND ENVIRONMENTAL **EXPOSURES**

KENNETH MUGWANYA PhD 2016, Epidemiology

> PREVENTING NEW **HIV INFECTIONS IN** AFRICA



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ETENI LONGONDO

MPH 2005, Health Services

LEADING THE DRC

DISEASE OUTBREAKS

THROUGH SIX



ESSENTIAL

NOPKERS

BRUCE PSATY MPH 1986, Epidemiology

UNCOVERING THE ADVERSE REACTIONS OF COMMONLY USED DRUGS





FREDERICK **RIVARA** MPH 1980, Health Services

NATIONAL THOUGHT LEADER ON INJURY PREVENTION AND CONTROL

EMMA SPICKARD BS 2019, Public Health-Global Health (College Honors)

FINDING THE INTERSECTION BETWEEN PUBLIC HEALTH AND POLICY



VY TRAN BS 2016, Environmental & Occupational Health Sciences

DISCOVERING A PASSION FOR WORKER SAFETY & ENTREPRENEURSHIP

CLARICE WEINBERG PhD 1980, Biostatistics

One building, six schools, infinite possibilities

New health sciences building to feature active learning and cross-disciplinary education

WRITTEN BY MEREDITH BAILEY

ulking concrete structures with maze-like hallways and auditorium-style lecture halls are the architectural mainstays of many college campuses, but the University of Washington is intentionally constructing a different kind of space — one that invites collaboration, creativity and community.

The new Health Sciences Education Building, slated to open in 2022, will be nestled in the heart of south campus along Pacific Avenue. The 4-story, 110,000 square-foot building is designed to be a hub for all six health sciences schools, where students in dentistry, medicine, nursing, pharmacy, public health and social work can spend the day learning, both in and outside the classroom.

The building's exterior will feature light-reflecting glass and metal surfaces, a courtyard and terrace, but what's most striking is on the inside: an array of spaces - from large classrooms that accommodate up to 140 students to small breakout rooms for groups of eight - dedicated to active learning.

Designing a student-centered building that serves the needs of all the health sciences requires a lot of planning ---including input from faculty, staff and students — as well as funding. The state of Washington has invested \$70 million in the \$100 million project. The university is seeking to

raise an additional \$30 million in gifts from the community. Opportunities are available for naming spaces in the building.

MORE ENGAGEMENT, BETTER OUTCOMES

One way you know you are in an active learning classroom is by the sound. Rather than a single voice booming from behind a lectern, you'll hear the low rumble of multiple voices, students quietly brainstorming, sharing feedback and asking questions. "The goal of active learning is to get students to learn with and from each other. You're actually taking advantage of the fact that you're all in a room together," says Sara Mackenzie, teaching professor for the Department of Health Services.

For example, Mackenzie uses an active-learning technique called think-pair-share, where students first reflect individually on a question she has posed. Then they share their ideas with a partner or small group, before joining a discussion with the entire class. These types of active-learning techniques help students retain information and apply concepts to situations they are likely to encounter in the workplace. Active learning also presents opportunities for students to hone their speaking skills, particularly when discussing controversial topics.

Betelehem Tessema, an undergraduate student majoring in public health-global health, felt too



Sara Mackenzie teaching class pre-pandemic (January 2020).

intimidated to raise her hand in class when she first started college. "My interactive classes taught me how to speak up in larger groups," says Tessema. "Plus, it's really helpful to hear how other people are interpreting what we're reading or what we're doing."

The new Health Sciences Education Building is designed with active-learning activities in mind. Classrooms will feature mobile tables and chairs that swivel to make it easier for students to converse with their neighbors. Multiple projection screens and whiteboards will be positioned around larger rooms. The classrooms will be distance-learning enabled, with care given to eliminate distractions, such as noise and

Changing the meaning of 'teamwork' to improve health outcomes

activity.

By learning together in a shared building, health sciences students at the UW will learn to appreciate the different skills and expertise that individuals bring to an interdisciplinary health prevention, promotion and care team. This is a primary goal of the new Health Sciences Education Building.

"We want our students to get out of their territories to consider who else can help them do what's right for their patients or the population," says Peggy Odegard, professor and associate dean at the UW School of Pharmacy. Odegard works in diabetes care, an area she says benefits from this sort of awareness, trust and teamwork.

A cross-disciplinary approach to caring for patients with diabetes, which affects more than 460 million people worldwide, could lead to better health outcomes and reduce costs. Placing the patient at the center and involving physicians, nurses, pharmacists and dentists in their care could prevent heart attack and stroke, foot ulcers, blindness, kidney failure and poor oral health. Health administrators influence overall care quality and safety. Engaging social workers could ensure a patient's access to health education, mental health care and services such as food assistance.

Importantly, stopping the diabetes epidemic will require collaboration with public health professionals who play a role in supporting proven interventions to prevent or delay the onset of diabetes, such as strategies that promote healthy nutrition and increase physical

Public health experts also have a huge task in bringing about systemic change through advocacy and policy work, says Gary Chiodo, a public health dentist and dean of the UW School of Dentistry. They are key to ensuring that other health professionals and the U.S. health care system, in general, recognize upstream drivers of diabetes including income, education, housing and access to nutritious food and health care. It is important that health sciences students understand this bigger-picture view and that they take it with them into their practice, according to Chiodo. "Learning alongside students in public health will catalyze that," he says.

inadequate lighting which is critical given that SPH and the other health sciences schools train students and provide continuing education training across not only the Pacific Northwest region, but also globally.

"Unlike a typical lecture hall with fixed, tiered seating, and maybe one screen that not everyone can see well, these classrooms are flexible, modern and designed for a multidirectional flow of information," says Hilary Godwin, dean of the UW School of Public Health.

TEAMING UP ACROSS DISCIPLINES

Team-based work facilitates learning among students in a class and across disciplines. An important focus of the six health sciences schools is interprofessional education (IPE): training students how to work together to improve the health of individuals and communities.

"I cannot think of a single job in public health where you just sit behind a desk and do your own work," says Godwin. "To address the huge problems we're facing as a society, like the opioid crisis, you have to be able to collaborate with all kinds of people. If we don't train students how to do this now, then they won't be prepared for success in the workforce."

Collaboration in public health practice and in health care settings has not only become the norm but also reduces costs and enhances both the delivery and experience of care. "People across disciplines have different ways of seeing the world and bringing them together yields more innovation and advancement," says Mackenzie. "That's how you truly influence health outcomes."

In addition to providing a variety of multidisciplinary-use classrooms, the new Health Sciences Building will feature an anatomy lab and "skills lab suite" where students across different programs can participate in clinical simulations and



Students in SPH380 working together pre-pandemic (January 2020)

practice working toward common goals.

The building's IPE commons is a place where students from all the health sciences can gather between classes to engage in discussions or group work. Other informal shared spaces include a quiet study area, a collaboration lobby, a communal kitchen and library.

"It's not just about what happens in the classroom," Godwin says. "We want students working together in diverse teams outside of class too, but to do that they need somewhere to congregate."

Work on the new building began last summer and a formal groundbreaking ceremony was held on Aug. 27, 2020. As construction progresses, Godwin and other faculty members are brainstorming new educational possibilities. "We're thinking about the ways we can leverage this space to develop new programs and to better meet the health needs of communities in our region and around the globe."

To learn more about supporting the new building and opportunities for recognition through naming a space, please contact Megan Ingram, associate dean for advancement at the UW School of Public Health, at mkingram@uw.edu or 206-616-7197.



Groundbreaking ceremony of the new Health Sciences Education Building. Left to right: Dean Edwina Uehara, School of Social Work: Dean Sean D. ullivan. School of Pharmacy: Executive Dean Azita Emami School of Vursing; Dean Gary Chiodo, School of Dentistry; and Dean Hilary Godwin, School of Public Health.

SPH CAMPAIGN for students

New SPH fundraising campaign invests in students shaping the future of public health

WRITTEN BY MEREDITH BAILEY

he COVID-19 pandemic, systemic racism, economic recession, unprecedented wildfires

and storms — these crises have upended our lives in ways that are both immediate and long lasting. But they have also delivered a powerful lesson: a key to creating healthy, sustainable communities the world over is investing in a welltrained public health workforce.

The UW School of Public Health is at the forefront of this mission — educating future professionals who can address the myriad problems facing us, from health disparities to opioid addiction to climate-change fueled natural disasters. To coincide with its 50th Anniversary, the School has launched its Campaign for Students, an initiative to ensure that resources are

available to support future public

health leaders who reflect the communities they serve, as they progress through their studies and pursue their passions.

Lifting the financial burden

The School routinely attracts top talent, students like Sumaya Mohamed, who is interested in global health in the context of the global diaspora. Since her teenage

years, she has been volunteering with organizations in South King County, Wash., that help East African refugees and immigrants live sustainable, successful lives.

Mohamed brings an important lens and lived experience to her work that make her uniquely



Sumaya Mohamed, MPH student, Global Health

poised to lift up and leverage the strengths of these communities. Born in a refugee camp in Iffo, Kenya, Mohamed and her family relocated to Auburn, about 28 miles south of Seattle, when she was five years old. "My parents didn't speak English, and the systems refugees and immigrants have to navigate are really complicated," she says. "Those experiences pushed me to focus on social justice and global health."

The UW School of Public Health was an ideal place for Mohamed to pursue a master's degree in global health because of its high caliber program and proximity to numerous global health organizations. But there was one big obstacle: the cost. The School loses outstanding student candidates to other universities due to a lack of funding, a problem compounded by the high cost of living in the Puget Sound region. A priority of the SPH Campaign for Students is to increase funding for scholarships and fellowships, awards that can make higher education more attainable.

Tuition funding made all the difference for Mohamed, the first person in her family to attend college and enroll in graduate school. She is a recipient of the Endowed Fellowship for Global Health Excellence, Equity and Impact. "It lifted a brick house off my shoulders," she says. "I can focus on my studies instead of worrying about how I'm going to pay for everything."

This funding allowed Mohamed to continue her work with Mama AMAAN (Somali for "safe motherhood"), a project that explores the effectiveness of a community-developed and run program of pre- and postnatal care services among South King County's Somali immigrants and refugees. As an MPH student, she also assisted









CALLED to action

with research in Malawi to understand the cultural acceptability and feasibility of a minimally invasive tissue sampling approach that can be used to understand cause of death among children.

Facilitating collaboration

Financial support alleviates stress for students, and it can also make it possible for them to engage in interdisciplinary training and collaborations that are essential to tackling complex public health problems. Antonio Olivas-Martinez, a physician, is pursuing a PhD in biostatistics to bring his two passions, mathematics and medicine, closer together.

During his internal medicine residency at a prominent research hospital in Mexico City, Olivas-Martinez noticed that many medical











professionals lacked literacy in health statistics. "My colleagues would ask me to help them analyze data," says Olivas-Martinez, who has an undergraduate degree in mathematics. "But statistics is its own language - knowing how to correctly interpret research is important for helping patients make informed decisions."

At the UW School of Public Health, Olivas-Martinez, a Pat Wahl Endowed Fellow in Biostatistics, has focused on team-based, interdisciplinary work. He has collaborated with students of various public health disciplines to develop a proposal for a clinical trial. He has also participated in multiple research projects where he examines clinical data to improve the treatment of diseases such as breast cancer and COVID-19. Facilities that promote interaction and



Antonio Olivas-Martinez, PhD student, Biostatistics.

the Next Generation of **Public Health Professionals**

intellectual exchange often catalyze partnerships among students and between students and faculty. These types of collaborations will be greatly enhanced by the Health Sciences Education Building and Gilbert S. Omenn, MD, PhD and Martha A. Darling Environmental Health Research Laboratories, two new spaces that will increase the synergy between public health students and those from other health professions.

Olivas-Martinez plans to continue the synergistic nature of his studies upon graduation through teaching and conducting research. "One of the things I love about the field of biostatistics is that it involves collaborations with everyone that's how we make progress," he says.

Supporting students to follow their passions

When students have access to financial support, it doesn't just increase their opportunities for collaboration and learning - it demonstrates that they matter. "My awards made me feel like a valued part of the UW community," says Martell Hesketh, MPH '20.

A graduate of the Community-Oriented Public Health Practice (COPHP) program, Hesketh was a recipient of the Rattlinggourd Endowed Scholarship & Fellowship and the Health Services Excellence, Equity and Distinction Award. Now, Hesketh works as a program evaluator at the Urban Indian Health Institute, a tribal epidemiology center that conducts research and supports Urban Indian Health programs across the U.S.

Hesketh's relationship with the Urban Indian Health Institute began during graduate school; the institute served as the site of her summer internship and capstone project. Experiential learning opportunities like these, which allow students to apply their skills and knowledge in real-world settings, are an essential part of education at the UW School of Public Health. Support from donors helps to ensure that students are able to choose sites that match their passions, where they can make the greatest difference, regardless of whether the host organization has funding to hire them.

The Campaign for Students will support a number of experiential programming enhancements, such as infrastructure development, increased staffing and stipends

approaches to about.

that's actually community."

For more information about the SPH Campaign for Students, please contact Megan Ingram, associate dean for advancement at the UW School of Public Health, at mkingram@uw.edu or 206-616-7197.







for graduate practicums. Other program-related campaign priorities include the establishment of a student emergency fund and expansion of the student mentoring program. Hesketh's field-based learning experiences translated into a full-time job upon graduation. They also positioned her to tackle complex public health issues, such as how to reframe what constitutes "data," and to train others in Indigenous

evaluation, an area she is deeply passionate

She says, "Instead of relying only on statistics to determine the success of a program, Indigenous evaluation is about honoring traditional ways of knowing, like storytelling, and collecting information meaningful to the



Martell Hesketh, MPH '20, Community-Oriented Public Health Practice program

A call to action

Our ability to meet the public health challenges of the future is critically dependent on our ability to recruit and support students who share the lived experiences of the communities that we serve. This support not only makes the difference between whether students can afford our programs, it also gives them the flexibility to work on complex, interdisciplinary research problems and provides the freedom from financial burden to pursue their passions. We need your help creating a future that is centered on

equity. We hope that you will join us as a donor to the SPH Campaign for Students: sph.washington.edu/giving

Strengthening a public health workforce

Online MPH Program helps professionals tackle rural health inequities

WRITTEN BY EMELINE COKELET MENEKEN

hen Leah Wainman sought a way to translate community conversations about mental health needs into data that could inform health care policy, she found the solution in her online classroom.

A community engagement coordinator at the time for a North Puget Sound nonprofit, Wainman was also enrolled in the UW School of Public Health's Online Master of Public Health (MPH) Program. During her workday she documented people's experiences with depression in rural counties to better link behavioral and physical health services; in her coursework she was learning about health data analysis - and found she could apply those tools directly to her job in real time.

That's exactly the kind of value the School aims to provide with the Online MPH Program.

"Students can take what they learn in their classes back to their workplace every day," says Professor Jeff Harris, chair of the School's Department of Health Services and an Online MPH Program faculty member. "It's not just theoretical."

The program is designed for working professionals who want to grow their foundational knowledge and skills to improve health in their communities. Increasingly, the program focuses on training health leaders and practitioners to address inequities in Washington state's rural and tribal communities.

The COVID-19 pandemic has brought attention to stark health disparities between rural and urban communities. "We know there's a need to address these disparities, and the best way to do that is to train the workforce from those communities," says Miruna Petrescu-Prahova, director of the Online MPH Program. The Pacific Northwest's rural communities also lack data and infrastructure needed to tackle obesity, diabetes, tobacco use, mental health, violence and injury, and oral health, according to a 2019 study led by the School.

Wainman, who earned her MPH in 2019, found that

BY THE NUMBERS 1980 700+ FOUNDED ALUMNI

92% of graduates surveyed reported the program advanced their careers



Online MPH alum Leah Wainman

the data analysis skills she learned through the program were invaluable for ensuring community members' lived experiences informed policy development. Now an epidemiologist for Washington state's Island County Public Health and a member of the Governor's Interagency Council on Health Disparities, she emphasizes collecting and reporting health data disaggregated by race and ethnicity to better identify and make progress on health challenges facing people of color on Whidbey and Camano islands.

"In rural communities," says Wainman, "marginalized populations are just that — they're marginalized. They're not necessarily out there and seen. ... If you don't see somebody, you don't count them."

This approach to illuminating the needs of underserved communities has stayed with alumna Donalda Dodson since she completed the MPH program in 1985. As the executive director of Oregon Child Development Coalition in Wilsonville, Ore., Dodson and her team support the families of migrant and seasonal workers to address diabetes, child nutrition, infant safe sleep, and other health challenges unique to their largely transient populations.

Dodson says the MPH program helped her develop the mindset and confidence to approach health issues from a new perspective and tackle them more effectively.

"One of our instructors said, 'You're not always going to be able to articulate how what you're learning now will impact what you're doing," Dodson recalls. "But you will be able to notice if you're doing it differently."

The 18-month program draws students who are at various stages in their careers. Through weekly online classes, independent and group coursework, a practicum, and a capstone project or thesis, students learn cutting-edge tools and approaches to understand and address health issues facing their communities. Public health practitioners who teach the courses bring their varied field experiences into the classroom, while students enhance the conversation through their own

expertise and stories.

Since its start in 1980 as the Extended MPH Degree, the program has graduated more than 700 students. Many, like alumna Vickie Ybarra, now lead public health programs, agencies and nonprofits.

Ybarra enrolled in the MPH program in the 1990s while working to expand prenatal care for migrant women and families in the Yakima Valley.

"I knew I needed more skills and training to best meet the opportunity of creating a more robust health care safety net for those in greatest need," she says.

The program helped her to assess the causes and consequences of Yakima County's population transformation at the time to majority Hispanic births and then majority Hispanic children entering schools as immigrant families arrived in the valley. That experience, she says, strengthened her commitment to make lives better for children and families furthest from opportunity and set her on a policy leadership path. She now oversees the Office of Innovation, Alignment, and Accountability for the Washington Department of Children, Youth, and Families.

Today, the Online MPH Program is undergoing its own transformation with the launch of the "Online MPH 2.0" in Fall 2021. The revamped program will include a restructured curriculum, an enhanced online learning environment, courses that more closely align with the needs of the public health workforce, and a Spring quarter cohort in addition to its Autumn quarter cohort. As the program expands, students are being recruited from rural and tribal communities to build capacity for improving health equity across Washington state, Petrescu-Prahova says.

By preparing a workforce to effectively tackle challenges among the most marginalized populations, the Online MPH Program is positioning the state's smallest communities for better health today and tomorrow.

PROGRAM HIGHLIGHTS

- Full-time, 18 month, six-quarter program
- Two entry dates autumn and spring quarters
- Classes meet mostly online, with three on-campus sessions
- Working professionals earn an advanced degree in public health while continuing their careers
- Students take on leadership roles tackling public health challenges and promoting health equity and social justice

Right: Coulee Dam, Wash. Credit: University of Washington



New labs for a new era in public health

WRITTEN BY STARRE VARTAN ILLUSTRATION BY ELIZAR MERCADO

ouis Pasteur, discoverer of vaccines, stated a major truth: "Without laboratories, men of science are soldiers • without arms." Lab work was at the heart of making large-scale population health advances in his era — and it's just as true today.

As a fellow public-health champion, Gilbert S. Omenn knows how right Pasteur was: he and his wife, Martha A. Darling, have recently bestowed one of the largest gifts ever received by the UW School of Public Health - specifically for new environmental health research laboratories at the School.

"Well-equipped laboratories and outstanding staff are essential to detect chemical, microbiological and physical exposures from the environment and drive progress in reducing such exposures and their risks to our health," Omenn says.

Omenn credits his parents and his mentors for fostering his broad interdisciplinary interests and his drive to contribute to a better world. Professionally, he has embraced basic research, innovations in clinical genetics, public policy and leadership roles through the National Academies of Sciences, Engineering, and Medicine, the National Institutes of Health, the biotech world and a presidential and congressional commission on risk.

"When I graduated from Harvard Medical School, my speech on behalf of the class was 'On Curiosity,'" Omenn says. That curiosity informed his life's work. "Asking compelling questions for which we may have no current answers and taking the roads 'less travel'd' can be stimulating throughout our lives."

Omenn's wife, Martha, who he met 46 years ago in Paris, has a similar attitude about her career in international economics, first as a White House Fellow at the U.S. Treasury, then at Boeing and later in education policy. "I have always been drawn to problem solving. One challenge is finding the right tools. I view our investment in this suite of labs as providing vital tools to SPH students, faculty and partners as they address all sorts of environmental problems and work

toward formulating solutions," says Darling.

That marriage of curiosity and problem solving is at the heart of Omenn and Darling's gift: "Experimental science depends on insightful hypotheses, cutting-edge technologies and places to bring together committed and collaborative researchers and students," says Omenn. To that end, he sees newer and smarter lab spaces as imperative for the future of public health.

"This truly is a transformative gift," says Dean Hilary Godwin. The old labs were "tired" and not state of the art, she notes. This was particularly surprising considering the strength of the laboratory research program in the School's Department of Environmental & Occupational Health Sciences (DEOHS). In addition, the labs provide essential services for the state of Washington that began in 1951 with the Environmental Health Laboratory, which supported research into air pollution for local government. These services expanded in the 1960s to improve occupational health for the state's workers via public worker compensation funds.

"Having up-to-date facilities is absolutely essential to maintain DEOHS's strong rankings and competitive research program as well as their ability to continue serving the needs of the state," says Dean Godwin.

This gift includes funding for modern, more efficient spaces for existing molecular toxicology, vivarium, cell culture and microbiology labs in the Roosevelt Building, as well as new labs for mass spectrometry, biosafety level 2, trace metals, inorganics and gas calibration analysis.

In addition, the Field Research and Consultation Group lab will be renovated, which will be ideal for prototyping new devices and keeping sample collection materials that are important to have on hand for larger, population-based research studies.

Elaine Faustman, director of the DEOHS Institute for Risk Analysis and Risk Communication, says she'll be using the new labs and they will have an "exponential impact" on some of the most important work DEOHS scientists do. Faustman works to identify metals such as arsenic and cadmium that may cause negative health effects in children. She'll be using the new labs for "low-level metal analysis capabilities, which is critical as the neurodevelopmental toxicity of metals continues to plague our region as well as our nation," says Faustman. She and Omenn launched a multi-school course at the UW on Risk Assessment and Risk Management in 1982 that remains popular to this day.

That kind of far-reaching, large-scale public health work is exactly the kind of science Omenn and Darling aim to support with their gift. "As revealed to all during this pandemic, making a difference at the scale of populations - through innovative and trusted science, systems of public health services and compassionate care, and encouragement of healthful behaviors - fits with the School and its role in President Ana Mari Cauce's Population Health Initiative," says Omenn.

In thanks for this gift and previous gifts to the School and his long-standing commitment to public health, the UW is honoring Omenn with a new annual lecture focused on how science informs risk assessment and public engagement. The annual lecture will be hosted by DEOHS in the fall quarter.

DEOHS Chair Michael Yost says he's building an incubator environment for both faculty and students. This lecture is part of that idea: "The transformational experience this offers our students is the unique combination of scientific skills and communication skills needed for effective collaboration," says Yost.

Omenn and Darling hope to inspire others to "help make a better world, whatever their career or community focus." Along with a focus on the natural world, Omenn says, "We want to inspire an appreciation for the interaction of individual differences and responsible behaviors with all kinds of environmental exposures, then to reduce disease risks and enhance wellness."





Gilbert S. Omenn and Martha A. Darling

ABOUT GILBERT S. OMENN

Omenn came to the UW in 1969 as a fellow in Medical Genetics with pioneering UW Professor Arno G. Motulsky. In 1971, Omenn joined the faculty in the Medical Genetics tracks in Internal Medicine. He launched the Robert Wood Johnson Clinical Scholars Program in 1975 across the UW Schools of Medicine, Public Health and Business. Meanwhile, he also served in Washington, D.C. as a White House Fellow at the Atomic Energy Commission and later as an associate director of the White House Office of Science and Technology Policy and Office of Management and Budget. He returned to the UW in 1982 in the School of Medicine and as chair of DEOHS and then as dean of the School of Public Health from 1982 to 1997. Omenn championed toxicology, eco-genetics and risk assessment as research foci for DEOHS, which led to the School receiving major funding from the National Institute of Environmental Health Sciences and Environmental Protection Agency.

In 1997, Omenn moved to the University of Michigan to serve as chief executive officer of the Health System and executive vice president for medical affairs. For the past 15 years, he has led the University-wide Center for **Computational Medicine and Bioinformatics and** the global Human Proteome Project. In addition, he is an affiliate professor at the UW School of Public Health in DEOHS.

If you are interested in creating your own legacy in the UW School of Public Health, please contact Megan Ingram, associate dean for advancement, at mkingram@uw.edu or 206-616-7197.

Working toward becoming an anti-racist school of public health The beginning of a vital journey

WRITTEN BY ASHLIE CHANDLER PHOTOS BY ELIZAR MERCADO

Close your eyes. Take a deep breath in through your nose. Exhale all the air out through your mouth.

These are the calming words Shanise Owens, a doctoral student at the UW School of Public Health, would hear every Wednesday at 10 a.m. last fall as she and other participants worked through a mindfulness breathing exercise on Zoom. The group would repeat these steps several times for a few minutes, and then they'd get to work.

This is not a common practice in meetings in academia, but it is how a team leading equity, diversity and inclusion (EDI) efforts at the School began each of their meetings in 2020, a year unlike any other. As the world stared down a deadly virus devastating Black, Indigenous and Latinx communities, saw a new moment of reckoning on racism, and anxiously awaited the results of a futureshaping U.S. presidential election, the SPH EDI team took a moment to breathe.

The breathing exercise helped Owens, an EDI research assistant, to center herself — to bring her awareness and attention to how she was feeling in that moment and to set intentions for the difficult work ahead. Much of that work over the last 10 months has been focused on developing the first in a series of School-wide anti-racism trainings. This is just one step on a larger road map guiding the School toward becoming an anti-racist institution, a charge that is long overdue and has been driven by students.

Also on the road map are strategies to improve the way the School attracts, hires and matriculates faculty, staff and students from different backgrounds, and to remove barriers that prevent them from being successful. The School is taking a hard look at the way students are educated, research is conducted and other operations are handled, at the same time recognizing there is still a lot of healing that needs to take place. This inward gaze is a vital part of the School's pursuit to dismantle systemic racism, a public health issue that requires acting to undo the racist policies that continue to shape everyday realities of health for communities.

"People know what health disparities are intellectually but they don't know it spiritually," says Owens, who studies in the Department of Health Services and also has master's degrees in clinical psychology and global mental health. "When you talk about health disparities, you're talking about my uncle who died because he avoided treatment at a hospital due to COVID-19 and my older cousin who works in public transportation and is now on life support because of COVID-19. How do we start changing the conversation so it's not so intellectual but you actually feel it in your heart and you understand that these are real lives that matter?"

This is a hard question to answer, and the challenging task to find a solution seems to rest on the shoulders of EDI team members and volunteers. It's clear that having these tough and uncomfortable conversations is necessary to bring about the kind of change Owens and others want to see, and that the







"There isn't one right way to undo 500 years of racism and, to be clear, the School is likely never going to fully become anti-racist."

School is committed to making. A seismic shift is also needed in the way leadership, faculty, staff and students think about themselves and how they maintain racist structures.

"Anti-racism work is a journey and we're at the very beginning," says Victoria Gardner, assistant dean for EDI, who joined the School in 2018. Gardner now has a team that includes rukie hartman, an Office of the Dean staffer who supports EDI part time, and Ahoua Koné, co-chair of the SPH EDI Committee, a School-wide governing body.

"There isn't one right way to undo 500 years of racism and, to be clear, the School is likely never going to fully become anti-racist," says Koné, a clinical assistant professor in the Department of Global Health. "Even the slightest change will be hard to achieve."

Though this team has taken on the hard and harrowing responsibility to discover and implement strategies to help move the School along its path, every person within the institution must also see themselves in this work. The positive news is that there is a starting point, as the School launched its new anti-racism training in the fall of 2020. Created by Gardner, Koné and hartman, in collaboration with Owens and a School-wide anti-racism work group, the training takes a community-based approach that emphasizes continuous

> unlearning and relearning at

the individual,

system levels.

interpersonal and

Participants are introduced to

race, racism, anti-

racism and white

supremacy culture

in organizations as

well as techniques

for modeling antiracist behavior.

This provides the

School a shared



rukie hartman is an Office of the Dean program operations specialist who supports EDI part time.



Ahoua Koné is co-chair of the SPH EDI Committee, a School-wide governing body.

language and framework, what hartman says has historically been non-existent. So far, nearly 200 core faculty and 230 staff have taken part in the first training sessions offered by the EDI team. The School will continue to offer the training through 2021 and is committed to seeing this type of work continue into the future.

To complement the universal training, faculty, staff and students are urged to build upon their anti-racism practice in affinity groups, community spaces where problems can be discussed and solved. People can also engage in additional skills- and action-based trainings that address issues such as microaggressions. Additionally, they can take part in activities or programs centered on a Common Book for all members of the School community. Fittingly, this academic year, the School is reading "How to Be an Antiracist" by Ibram X. Kendi as its Common Book.

To establish accountability and transparency, the School will need to collect data on these trainings, along with other activities, and develop metrics to measure their impact. The team recognizes that this is not an easy thing to do, and "people will have to reconsider and critically think about what it means to 'measure' this sort of thing," Gardner says, "Antiracism training doesn't typically have benchmarks."

Says hartman: "The goal shouldn't be to show how great we are in numbers. It's about that cultural change and knowing there is a sense of trust in our community. To me, the real measure of good EDI work is how people feel, and it's much harder to measure feeling."

Following the murder of George Floyd in May 2020, Dean Hilary Godwin was motivated by a call from more than 300 students to create School-wide anti-racism training, and she entrusted the EDI team with developing it. The initiative ---and the School's greater EDI road map - was also informed

by earlier work led by faculty members Amy Hagopian, Clarence Spigner and India Ornelas to develop a curriculum competency requiring all students in the School to "recognize the means by which social inequities and racism, generated by power and privilege, undermine health," according to their published paper. A similar curriculum competency was also adopted by the Council on Education for Public Health for accredited MPH programs after recommendations were made by the School's curriculum committee.

"The article is a wonderful gift from the authors to help all of us, not just students, think about how we can do our work better," Gardner says. "We want to challenge people in the School to take this on as part of their individual work to become better humans and better public health professionals."

These acts of innovation continue to happen in EDI committees in departments across the School. Folks in the Department of Epidemiology recently produced a course development tool to help instructors modify their teaching and course materials to reflect EDI and anti-racism principles. In 2019, a team from the Department of Global Health led a qualitative study



School's EDI team.

that depicted the lived experiences of people in the School and defined priority areas of improvement. The study was funded by a Diversity and Inclusion Seed Grant from the UW's Office of Minority Affairs with matching funds from the department and the School's Office of the Dean.

Owens says this sort of funding is important to propel EDI and antiracism efforts forward and to signal a commitment to change. She and other students have been key to moving EDI forward, offering their voices to compel the School to address its own racism. According to Owens, students want to see more funding for EDI, more representation at all levels of the School and more anti-racist principles incorporated in public health teaching and research. Some of this work is



Victoria Gardner is the School's assistant dean for EDI.

Shanise Owens is a PhD student in the Department of Health Services and research assistant for the

already under way throughout the School.

Owens is hopeful about the School's anti-racism journey and the role she can play, but she is also mindful of her own well-being, she says, and the breathing exercises have helped.

"These trainings encourage us to have the uncomfortable dialogue about hundreds of years of discrimination and racism in public health," she says, "and that dialogue continues to move us along the path toward creating a more diverse and inclusive environment within the School."

The School may make mistakes along its journey to become anti-racist, but it is the accountability, reflection, growth, continued learning and actions that come next that truly count, she says.

"Anti-racism work is a journey and we're at the very beginning."











New Hans Rosling Center for Population Health to spur collaboration

WRITTEN BY JEAN JACKMAN

Bring together top UW and global talent already working on complex, inter-related public health challenges, and create more opportunities for collaboration. That's the vision behind the newly completed Hans Rosling Center for Population Health on the UW campus. "The Hans Rosling Center is a physical home and creative hub for researchers, educators and practitioners focused on urgent health issues around the globe — designed to accelerate and amplify the impact of collective public health efforts," said Hilary Godwin, dean of the UW School of Public Health.

Melinda Gates.

humanity.

The Center houses:

For more information, visit:

1. The Seated IV sculpture by Wangechi Mutu

WELCOME HOME:

Built with a leadership gift from the Bill & Melinda Gates Foundation and funding from Washington state and the UW, the center is named for the late Hans Rosling, a Swedish physician and educator with decades of public health experience in under-served countries. Rosling was a longtime colleague and friend of Bill and

The 300,000-sq. ft Rosling Center features an open floor plan and lots of natural light. Diverse art installations throughout the building honor the connections between cultures, the natural world and

• Portions of the UW School of Public Health, including the Department of Global Health

• Institute for Health Metrics & Evaluation (IHME)

• Offices of the Population Health Initiative

www.uw.edu/populationhealth/hans-rosling-center

2. "Boundless Topographies" sculptural installation by Rachel Mica Weiss

New Faculty



Elena Austin, assistant professor, Environmental & Occupational Health Sciences, focuses on multipollutant exposure metrics, geographic information systems, remote sensing, risk communication in farm-worker communities and the development and evaluation of data visualization tools.



Sarah Collier, assistant professor, Environmental & Occupational Health Sciences, and core faculty member in the Nutritional Sciences Program, examines the resilience of agricultural systems due to climate change and other stresses, with an emphasis on environmental outcomes and implications for farmers.



Cristen Harris, associate teaching professor, Epidemiology, is a registered nutritionist, a clinical exercise physiologist, and certified as a sports dietitian. She is passionate about whole-person health and wellness.



John Hartgraves, associate teaching professor, Health Services, focuses on health care informatics, quality improvement, leadership principles, change management and innovation.



Christine M. Kava, acting assistant professor, Health Services, investigates the processes and factors associated with implementation of evidence-based interventions for tobacco control in work site settings.



Christopher Kemp, acting assistant professor, Global Health, works to narrow the global treatment gaps for mental health, HIV, and nutrition, with a specific focus on implementation science and economic evaluation.



Karen Levy, associate professor, Environmental & Occupational Health Sciences, focuses on the ecology and epidemiology of food and waterborne diseases. Her research group applies microbiological and epidemiological methods to study water quality, food safety, and the impact of climate change on the transmission of diarrheal diseases.







Judit Marsillach, clinical assistant professor, Environmental & Occupational Health Sciences, focuses on exposomic research examining the dynamics of environmental exposures and oxidative stress leading to the development of adverse birth outcomes and chronic human diseases.

Darcy Rao, acting assistant professor, Epidemiology, blends empirical epidemiological research and mathematical modeling to inform the design and implementation of interventions to prevent transmission and morbidity from sexually transmitted infections.



Anne Riederer, clinical associate professor, Environmental & Occupational Health Sciences, assesses exposures of young children and pregnant women to heavy metals, pesticides, and other environmental neurotoxicants.



Keshet Ronen, acting assistant professor, Global Health, investigates the use of mobile communication technology to improve behavioral health in underserved communities, particularly in Kenya and the US.

Join Our Faculty

The UW School of Public Health is one of the nation's premier schools of public health. Located in Seattle, a high-tech, global health hub, the School was established in 1970, enrolls 1,900 students and employs about 250 primary and joint faculty members. The School is recognized worldwide for its strength in public health



Marie Spiker, assistant professor, Epidemiology, and core faculty member in the Nutritional Sciences Program, is a registered dietitian nutritionist and public health nutrition researcher. Drawing from mixed-methods research and systems science, her work focuses on connections between food systems and human nutrition.



Jenna van Draanen, assistant professor, Health Services and Child, Family, and Population Health Nursing, studies the social determinants of mental health and substance use disorders with expertise in the impact of early poverty and childhood adversity.

research. In fiscal year 2020, the SPH faculty was aw more than \$200 million in external funding for research and training from federal, state, and local governmental agencies, as well as private foundations. To learn more about faculty career opportunities at the School, visit: sph.uw.edu/careers/faculty

News and Announcements



Three SPH faculty elected to the National Academy of Medicine

David Eaton honored with David Rall Medal

Congratulations to these UW School of Public Health faculty elected to the National Academy of Medicine in October 2020:



Patrick Heagerty, professor of biostatistics, School of Public Health

Election to the Academy recognizes individuals who have demonstrated outstanding professional achievement and commitment to service.

The Academy cited Heagerty for his "development of novel statistical models for longitudinal data to better diagnose disease, track its trajectory, and predict its outcomes."

Kaufman was recognized for his "international leadership in understanding the health effects of ambient air pollution." Sullivan was cited for "pioneering U.S. guidelines for evidencebased drug formulary development."



Joel Kaufman, professor of environmental and occupational health sciences and epidemiology (School of Public Health) and general internal medicine (UW School of Medicine)



Sean Sullivan, dean and professor of the UW School of Pharmacy and professor of health services (School of Public Health).

David Eaton, professor emeritus of environmental and occupational health sciences, was awarded the Academy's David Rall Medal for distinguished service as chair of a study committee. The Academy noted Eaton's "significant leadership and dedication to improving health and furthering science." Eaton is also former vice provost of the UW Graduate School.



Pamela Collins named executive director of I-TECH



The International Training and Education Center for Health (I-TECH) appointed Pamela Collins as its new executive director effective July 1, 2020.

A psychiatrist and mixed-methods researcher, Collins joined the UW in 2018 as director of the Global Mental Health

Program, within the Department of Global Health and the Department of Psychiatry and Behavioral Sciences. She also serves as director of Faculty Development at DGH and as principal investigator of EQUIP Nairobi, a pilot implementation of Trauma-Focused Cognitive Behavioral Therapy in Nairobi, Kenya.

Before joining the UW, Collins was director of the Office for

Research on Disparities & Global Mental Health and the Office of Rural Mental Health Research at the National Institute of Mental Health. She also taught for 13 years at Columbia University.

I-TECH works with local ministries of health, universities, nongovernmental organizations, medical facilities and other partners to support the development of a skilled health work force and wellorganized national health delivery systems.

"I am humbled and thrilled by the opportunity to join and lead the I-TECH community," said Collins.

New SPH 2020-2025 strategic plan launched



The SPH 2020-2025 Strategic Plan was launched in July 2020 and we're already making progress. Despite COVID-19, budget uncertainties and other hurdles, the SPH community came together to create an ambitious roadmap that lays out a shared vision and action plans for the next five years. Work began in September 2019 and wrapped up in July 2020.

"This plan is the result of tremendous collaboration among faculty, staff, students, alumni and partners," said Dean Hilary Godwin. "We're excited to engage our entire community in bringing the plan to life."

With public health impact at its core, the strategic plan defines the SPH North Star as follows:

- UW School of Public Health tackles the greatest health challenges in our region and around the world.
- Our groundbreaking discoveries are fueled by rigorous science and equity-driven solutions.
- Our students are leaders who emerge prepared to work in partnership with communities to improve the health of all people.

The first year of the plan's rollout has been focused on implementing a new SPH faculty compensation program and evaluating best practices for faculty and staff development as well as student support.

For plan details and progress, visit: sph.uw.edu/about/strategic-plan

making across SPH.

Farquhar is a clinical professor of health before joining the UW.

Over the past two decades, Baeten's research focused primarily on the prevention of HIV and other sexually transmitted diseases. He has led pivotal clinical trials and implementation science research related to pre-exposure prophylaxis for HIV prevention. In his most recent role as vice dean for strategy, faculty affairs and

Strategic Plan.

Stephanie Farquhar named to associate dean position

Stephanie Farquhar was named associate dean for evaluation and improvement for the School of Public Health. This position is

focused on improving the use of data to meet new goals for strategic planning, student services and equity, diversity and inclusion. Farquhar will oversee efforts to collect and share data and measure progress toward attaining these goals, while improving access to data to help drive informed decision-



services and environmental and occupational health sciences. In addition to her teaching background, she has years of evaluation and data experience as a researcher and in administrative roles in her previous academic role in Portland, Oregon. She also served as a social research scientist at Public Health - Seattle & King County

A new chapter for vice dean **Jared Baeten**

Jared Baeten has left SPH to become vice president of Clinical Research at Gilead Sciences, where he will lead the company's work on HIV treatment and prevention.

new initiatives, Baeten led the development and implementation of the new SPH Faculty Compensation Plan and chaired the steering committee that created the 2020-2025 SPH

Baeten also served as professor of global health, epidemiology and medicine in the Division of Allergy and Infectious Diseases. He was director of the UW/Fred



Hutch Center for AIDS Research (CFAR), co-director of the UW International Center for Clinical Research (ICRC) and co-principal investigator of the NIH-funded Microbicides Trials Network.

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