



Photo: UK Department for International Development

Soil and water can be contaminated with intestinal worms

Bridging the “Know-Do” Gap

How implementation science is improving health worldwide

Anemia. Weakness. Malaise. Intestinal discomfort. Interrupted cognitive and physical development.

For nearly two billion people across the planet, these symptoms are part of daily life. They're part of living with soil-transmitted helminths—more commonly known as intestinal worms—inhabiting victims' bellies, sapping their nutrients and stunting their physical and cognitive development.

In countries where the disease is endemic, intestinal worms have long been a public health problem and a human rights issue—and the UW School of Public Health is doing something about it. Researchers are playing a leading role in DeWorm3, a project coordinated by the Natural History Museum in London and funded by the Bill & Melinda Gates Foundation that seeks to interrupt the transmission of worms.

“Soil-transmitted helminths have a low-level,

ongoing transmission cycle. We're trying to see what happens if we actually treat the entire community—preschool-aged children to adults—and compare that to the current standard of only treating kids,” says Arianna Means, PhD candidate and DeWorm3 research scientist.

The project, led by Associate Professor Judd Walson, seeks to leverage existing mass drug administration programs in Benin, Malawi and India currently used for another disease, lymphatic filariasis (commonly known as elephantiasis). This makes DeWorm3 one of the largest projects to date in the field known as implementation science.

“There's a lot of drive to conduct research and publish it, but then it's over,” Means says. “Implementation science is actually taking that next step, bridging the 'know-do' gap. It's asking, 'What does this research

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Bridging the “Know-Do” Gap

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mean for the people suffering from these diseases? Who can benefit from interventions?’ and then doing something about it. Implementation science is research-based and scientific, but it’s also action-oriented.”

And there’s no better place to do this work than the UW, Means says. The Department of Global Health is home to the world’s first PhD program in metrics and implementation science, transforming the way people approach population health to improve lives.

On average, it takes 17 years in the U.S. to go from the discovery of an intervention to its implementation at scale, according to Kenny Sherr, associate professor of global health. On the global level, the gap is even larger. “What implementation science tries to do is to take what we know works in terms of health interventions from randomized controlled trials, or efficacy trials, and to improve the speed and quality



Photo: Dennis Wise/University Marketing & Communications

Arianna Means, PhD candidate and DeWorm3 research scientist

of its implementation to have an impact on population health,” Sherr says.

According to Bryan Weiner, professor of global health and health services, implementation science includes helping domestic health care organizations figure out how to use the most innovative and effective practices to deliver preventive services and care to those most in need.

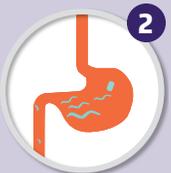
To see the full story, visit: washington.edu/boundless/improving-public-health

DEWORM3 TRIAL

PROPOSED TREATMENT



1 A pill called albendazole will be administered to the entire community —preschool-aged children to adults— twice a year.

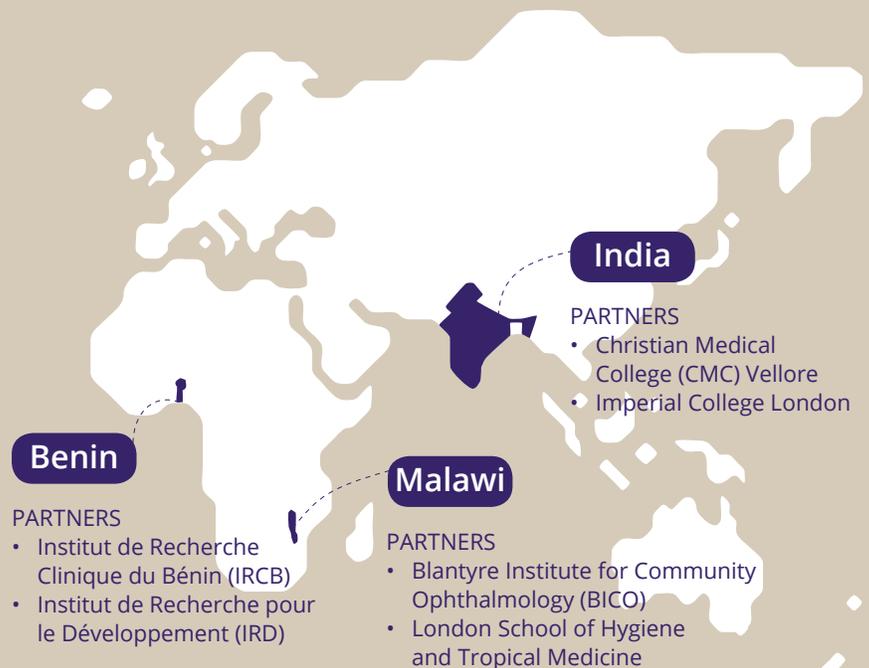


2 The pill sterilizes eggs, larvae and full-grown worms living in the gut and sapping nutrients.



3 Worms pass eggs in feces, which can contaminate the environment. As a result, even after treatment, community members may still be at risk of re-infection.

LOCATIONS



Infographics: Lauren Lee/University Marketing & Communications



Photo: © MEDEX Northwest

Charlotte Sanders, MSW,
speaks with Tent
City 3 resident

Meeting People in Need Where They Are

What causes someone to live on the streets?

Consider a story about one man who was unable to work because he had severe arthritis in both hips. The man couldn't pay rent and had nowhere to go. A hip replacement would have put him back to work, but the surgeon would only operate if the man had a place where he could recover.

"He was caught in a terrible catch-22," says Sara Marquis, an MPH student in the Department of Health Services, "unable to afford housing due to an illness beyond his control and unable to receive treatment due to his lack of stable housing."

The lesson is that a few unfortunate circumstances can make or keep someone homeless, says Marquis, who works with University District Street Medicine. Other SPH students gained similar insights this winter when nearly 60 homeless individuals moved to campus as part of Tent City 3. Several students, including Marquis, learned to engage tent city residents around their health care needs in UW's first course on homelessness. Through UW Medicine's MEDEX Northwest, students explored factors such as domestic violence, mental health, drug use and debt.

"Medical debt of \$150 was enough to create housing instability and ruin credit scores for some," says Jessica

Bielenberg, an MPH student researching homelessness and medical debt for her thesis. She collaborated with Tent City 3 and Nickelsville residents to design a survey and gather stories about financial hardship and health care. "I was nervous," Bielenberg says. "But I was able to build relationships and listen, and engage them to be part of the solution."

Bielenberg and eight other students from the Community-Oriented Public Health Practice (COPHP) program took the same approach while conducting the UW's formal evaluation of Tent City 3. As part of a course on program evaluation taught by COPHP Director Amy Hagopian, students assessed questionnaires, held focus groups and conducted interviews to evaluate whether the tent city achieved its goals.

Students found that 90 percent of residents were satisfied with their stay and all felt safe. Most in the UW community viewed the stay as positive and 61 percent of students, faculty and staff said the UW should host again.

"Homelessness is a serious public health issue," says MPH student Hena Parveen, who was part of the evaluation team. "I wasn't able to relate to homelessness until I worked on this project. It's a step to start meeting them where they are."

AWARDS & SCHOLARSHIPS

2017 Rattlinggourd Endowed Fellow



Community is important to Gabriel Cortez. A member of the Navajo Nation, he has deep connections to his people, the reservation and his home state of New Mexico.

Raised in Aztec, a town 40 minutes away from

the Navajo reservation, Cortez is the first of four siblings to finish college and go to graduate school.

"My mom raised us off the reservation so we'd have better educational opportunities," Cortez said. "She wanted to give us a leg up, and now I'm here at one of the best schools in the nation."

Cortez, an MPH student in the Community-Oriented Public Health Practice program, credits his mother for his passion for public health.

"I lost my mom when I was 21 from complications with stress, hypertension and Type 2 diabetes," he said. Cortez hopes to use skills learned at SPH to evaluate public health interventions and address the social determinants of health that persist in Native American communities.

"Community, to me, means family," he said. "It's about connecting to people, finding common ground and working together to create change and improve health."

Thanks to the Rattlinggourd Endowed Fellowship, Cortez was able to buy books, statistical analysis software and a new bed, which has improved his health and productivity.

The Rattlinggourd Endowed Scholarship and Fellowship was established by Dylan and Susan Wilbanks. It fosters public health advances in Native American and Alaska Native communities by providing support to public health students who demonstrate promise in working with underrepresented communities.

Karr Wins Presidential Early Career Award



Catherine Karr, professor of environmental and occupational health sciences, was named a recipient of the 2017 Presidential Early Career Award for Scientists and Engineers. It's the highest honor given by the U.S. government to early

career scientists and engineers.

Awardees are selected for their "pursuit of innovative research at the frontiers of science and technology and their commitment to community service as demonstrated through scientific leadership, public education or community outreach," according to a White House release.

Karr uses a community-engaged approach to research, focusing on environmental contaminants and pediatric respiratory health—including asthma, the health of farmworker children and global children's environmental health. Her recent projects include working with Native American and Latino communities in the Yakima Valley to develop low-cost air pollution sensors aimed at reducing wood smoke exposure. She is also conducting an intervention trial among Yakima youth with asthma to evaluate the effectiveness of home air cleaners.

Karr is also a professor of pediatrics and adjunct professor of epidemiology at the UW, as well as director of the Northwest Pediatric Environmental Health Specialty Unit, a regional consultation and education service. She cares for patients and teaches resident physicians at the Pediatric Care Center at UW Medical Center-Roosevelt.



Job Placement

Percentage of job-seeking SPH graduates employed within 1 year of graduation, based on a survey of 2014-15 alumni.



Photo: Copyright © 1995–2017 Boeing

NEW PARTNERSHIP

Formal Bond with Boeing to Boost Talent Pipeline

A new partnership with Boeing aims to bolster the School's academic programs and improve the company's talent pipeline.

The partnership comes with a philanthropic gift and establishes the School's first "focal," a company leader who will serve as a formal conduit between Boeing's Environment, Health and Safety (EHS) team and the Department of Environmental and Occupational Health Sciences.

"This partnership enhances the value we each contribute to our mission and serves to support healthy communities and workplaces locally, nationally and globally," Chair Michael Yost said.

Across the UW, there are 61 other Boeing focals responsible for building relationships with academic units.

"The focal will strengthen the relationship between Boeing and our department," Yost said. "The focal will also strengthen the relationship between our alumni who work at Boeing and our students."

Students have gained real-world experience through internships at the company. After graduation, many have gone on to work in Boeing's major production facilities in Renton and Everett.

Yost sees Boeing as a strategic partner in identifying the critical skills students need to increase their competitive advantage for jobs at the company.

"We want to help enhance the curriculum with business needs in mind," said Susan Colligan, manager of Boeing's EHS team and the School's focal. Internships help with job readiness, Colligan explained, and Boeing is eager to improve the network between student interns and internship opportunities.

Colligan received a master's in industrial hygiene and safety from the department in 1986. She has worked at Boeing for 10 years and is one of more than 25 alumni currently on the EHS team.

Some students in the department are required to complete an internship to graduate, including all undergraduates in environmental health and graduate students in the 15-month accelerated degree programs for occupational and environmental exposure sciences and applied toxicology.

"A key component of our accelerated degree programs is to have the students work in the real world to gain the practical experience they need," Yost said. "We value this experience as part of student training."

A formal presentation of the gift will be made to Yost during the American Industrial Hygiene Conference and Exposition in June. The gift will create the Boeing Environmental Health Excellence Fund and support students through internships and other career development opportunities.

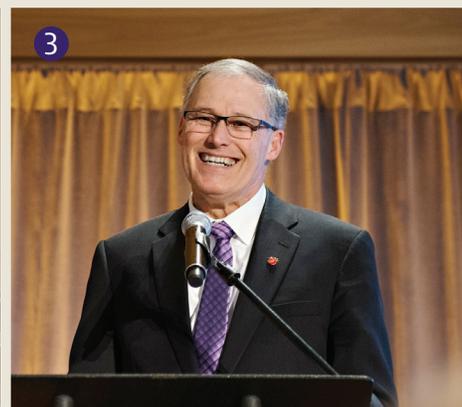
SCHOOL CELEBRATIONS

In February, we celebrated the 10th anniversary of the Department of Global Health and its many achievements. We looked ahead to the next generation of challenges during a symposium with local partners, community members and global health leaders.

At an evening reception, Melinda Gates, UW President Ana Mari Cauce and Gov. Jay Inslee

highlighted the impact of the global health sector in Washington state.

That same week, we celebrated two of our most exceptional alumni, Bernice Dahn and Patricia García, both ministers of health. They received this year's SPH Distinguished Alumni Award and presented on the importance of a public health education in their careers.



Photos: 1, 3, 5, 6: Barbie Hull; 2, 4: David Masuda

- 1 UW Regent Kristianne Blake with William H. Gates Sr. and Melinda Gates
- 2 Bernice Dahn (MPH '05), minister of health of Liberia, presenting during the 2017 Distinguished Alumni Award lecture
- 3 Gov. Jay Inslee touts Seattle as an epicenter for global health

- 4 Patricia García (MPH '98), minister of health of Peru, receiving the 2017 Distinguished Alumni Award from Interim Dean Joel Kaufman
- 5 Chris Elias, president, Global Development Program, Bill & Melinda Gates Foundation; Interim Dean Joel Kaufman; and Tom Cohen
- 6 UW President Ana Mari Cauce with Judith Wasserheit, chair, Department of Global Health, and Melinda Gates

New Endowed Professorship for Study of Population Health

Two long-time SPH faculty members recently established a unique and timely endowed professorship. The Bezruchka Family Endowed Professorship for the Public Understanding of Population Health seeks to fund a distinguished scholar focused on the study, teaching and dissemination of knowledge about population health. The aim is to expand a program to explore and share information about the social, economic and political determinants of health in the U.S. and in the wider context of global health.

Stephen Bezruchka and Mary Anne Mercer have dedicated their careers to the study of the social determinants of health and to pursuing social justice. Bezruchka and Mercer, both senior lecturers, see a need for improved awareness of the relatively poor health status of the U.S. population compared to



other developed nations. It is their hope that the holder of the professorship will engage with others to champion a greater understanding of the factors that promote or limit the health of populations.

This new fund will continue the couple's legacy as activists and defenders of underserved and under-resourced communities, and help fulfill their long-term goal for health equity. It was made possible by an inheritance from Bezruchka's working-class immigrant parents, Jaroslaw and Stella Bezruchka.

THE POWER OF GENEROSITY

Professor Emeritus Deepens Support for the MHA Program

Austin Ross, a lifelong mentor to hundreds of students and professionals, and his wife Annette understand the value of investing in a public health education.

Ross was executive vice president and chief operating officer of Virginia Mason Medical Center, a pioneer in the health administration field and a visionary for integrated care. He also enjoyed a second career as a professor in the Department of Health Services. When he retired from teaching in 1999, Virginia Mason and friends of the Master of Health Administration (MHA) program established the Austin Ross Endowed Chair in Health Administration in his honor.

Through their bequest, the Ross family is committed to the longevity of the MHA program. They have designated funds from their estate to the endowment that will help recruit and retain distinguished faculty to prepare the next generation of health administration practitioners.

"I believe that our Health Services graduates are exceptionally well prepared to contribute to improving public health," Ross says. "We donate to help ensure that support is in hand to help make this happen. We consider this an obligation of appreciation."

Are you considering a bequest to SPH or have you already included SPH in your will? Contact Libby Singer at 206-221-6343 or ersinger@uw.edu. We will work with you to ensure your gift does exactly what you intend.



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ANNOUNCEMENTS

New Faculty



Vanessa Galaviz, *lecturer, Environmental and Occupational Health Sciences*, is interested in minimizing environmental, public health and education disparities. She specializes in exposure assessment and environmental health concerns along the U.S./Mexico border.



Chris Vogliano, *lecturer, Epidemiology*, is interested in nutrigenomics and creating a sustainable and waste-free food system that is healthy for both people and the planet.



Sarah Knerr, *acting assistant professor, Health Services*, researches relationships between genetic beliefs and health behavior, with a goal of informing genetic and genomic interventions across the cancer continuum. Her area of emphasis is cancer prevention and control.



Elizabeth Cromwell, *assistant professor, Global Health*, is known for her research regarding early infant diagnosis of HIV infection. She is interested in international health and development and HIV prevention.

2017 Graduation Speaker



Natalia Kanem, assistant secretary-general of the United Nations and deputy executive director of the UN Population Fund, will speak at the SPH

graduation celebration in June.

For more than three decades, Kanem has worked to improve the health and education of women and children worldwide. Originally from Panama, she began as a student of medicine and public health in the U.S. before boldly forging an international philanthropic path. Now, at the UN, she works to expand the possibilities for millions of women and children to lead healthy and productive lives.

After receiving her MPH from the Department of Epidemiology in 1990, Kanem co-founded the Harlem Center for Health Promotion and Disease Prevention. She also served as founding president of ELMA Philanthropies, Inc. and funded pioneering work through the Ford Foundation.

In 2007, she was honored with the SPH Distinguished Alumni Award.