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SAFEGUARDING OUR FUTURE

Leading at the Intersection of Climate and Health

CHaNGE

Center for Health and the Global Environment

UNIVERSITY of WASHINGTON | SCHOOL OF PUBLIC HEALTH

Our Vision for CHanGE

A world in which climate action protects health, and health action prioritizes climate resilience

CHanGE is based in the UW School of Public Health bridging the Departments of Global Health and Environmental and Occupational Health Sciences. It's also a member of the College of the Environment's EarthLab, the university's interdisciplinary coalition focused on our most pressing environmental challenges.

PRIORITIZING HEALTH EQUITY

CHanGE works locally, nationally and around the world with frontline communities, health organizations, and others to quantify present and future risks to health brought on by the impact of climate change, identify effective policies and pathways to reduce these risks, and implement solutions at scale.

DECISION SUPPORT

Health ministries in low and middle-income countries as well as U.S. policymakers want to know the answers to questions such as: "Which communities are most at risk from wildfire smoke?" "How should we adapt surveillance strategies for communities vulnerable to infectious diseases propelled by climate change?" "How much should we invest to minimize heat-related risks?" Informed by its work around the world, [CHanGE builds tools](#) to answer these questions and guide the best decisions.

TRAINING THE NEXT GENERATION

CHanGE is building the skilled workforce of the future, ready to protect community and global health, advance health equity, and tackle this moment's defining challenges as we adapt to a changing climate.

"The UW is the best place to do this work. We're at the confluence of medicine and public health. We have deep physical sciences expertise in climate and environment. We have a global perspective and we're making strong policy connections. Most importantly, we have all the necessary collaborators working together from the Institute for Health Metrics and Evaluation, to the Climate Impacts Group, to EarthLab."



JEREMY HESS,
DIRECTOR OF CHanGE

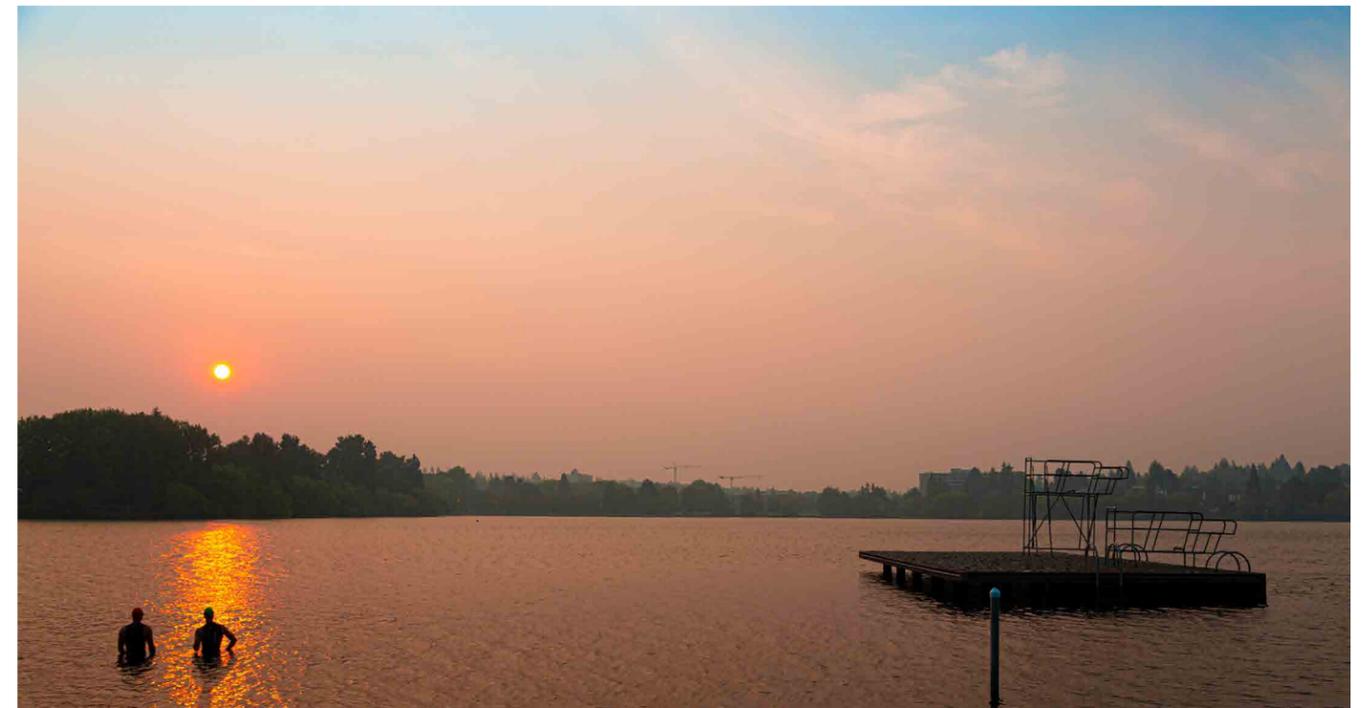
FROM PANDEMICS TO WILDFIRE SMOKE TO EXTREME WEATHER

Addressing Climate-Induced Health Emergencies

On June 26, 2021, Seattle experienced its most intense heatwave in recorded history. Interstate 5, north of the city, buckled and had to be closed. The high temperatures affected the entire Pacific Northwest region, where 2,779 emergency department visits for heat illness occurred from June 25 to 30. In Washington, more than 220 people went to emergency rooms with heat-related illnesses, and [at least 600 people died state-wide](#).

"Heat is the number one weather-related killer in the U.S.," says CHanGE Founding Director Kristie Ebi. She adds, "Nearly all of these deaths are preventable."

CHanGE is working with local, national, and global partners to prevent such deaths and



advise cities and states in shaping their response. Positioned for action, CHanGE maximizes the UW's interdisciplinary and collaborative culture and leverages public and private partnerships worldwide.

While saving lives, these critical research-based partnerships also expand our collective knowledge. For example, an international coalition that developed and implemented a heat action plan in Ahmedabad, India, proved key organizations like public health institutions and the Indian Meteorological Department could collaborate to better prepare and protect community health. In the summers of 2014 and 2015, their actions added up to an estimated 2,380 lives saved. India has since applied these lessons to 17 more cities and 11 states in the face of increasingly common extreme weather events like heatwaves.

Regardless of where people live, they need these kinds of responsive, globally informed collaborations. For instance, in Sub-Saharan Africa, pregnant women and newborn babies have an increased risk for complications and death from heat exposure. An international team is changing those outcomes by focusing on the education of traditional birth attendants, male partners, and health care workers to increase hydration and breastfeeding, along with planning to keep facilities cooler.

CHANGE STUDENTS IN ACTION

In Seattle, treating patients during those scorching days in June, after nearly two years with a front-row seat to the COVID-19 pandemic, fourth-year UW Emergency Medicine resident Dr. Zack Wettstein was glad that heat was the only hazard. "We were lucky we weren't inundated with air pollution at the same time, which often occurs," he says, calling to mind the week in September of 2020 when a giant plume of smoke blanketed the city.

A CHanGE student and UW Emergency Medicine Population Health Research Fellow, Wettstein understands better than most the increasing need for healthcare leaders to share knowledge, collaborate and mount coordinated responses that prevent climate-related ER visits and allow communities to adapt and thrive.

"I can only contribute so much by taking care of patients one at a time," he says. "By collaborating with partners with experience in other realms beyond public health, including the built environment, atmospheric sciences, social science, and economics, we can achieve greater positive health impact for the broader community."

[From state health departments to the CDC to the World Health Organization](#) read more about [CHanGE students advancing the field](#).

COMMUNITY DRIVEN SOLUTIONS

Over a decade ago, in response to flooding and other impacts on their lands on the Salish Sea, the Swinomish Tribe declared a climate emergency. Since then, they have been leading the way in community-centered adaption planning.

In 2017, this planning expanded to include indigenizing the CDC's Building Resilience Against Climate Effects framework into I-BRACE, a framework for indigenous communities. As one of the framework's developers and champions, CHanGE's Jeremy Hess serves as an advisor to the process in collaboration with Jamie Donatuto, who works for the Swinomish Tribe as a community environmental health analyst.

"The community successfully raised the funding for this work. Some money went to CHanGE, but Jeremy and his group are always available and working far more than they get paid for. I feel like part of the reason it works is that they go above and beyond," says Donatuto.

A HOLISTIC VISION

There are many important lessons in this leading effort, including problem-solving in more inclusive and holistic ways. For example, the Swinomish Tribe's concept of health does not stop at the individual. Instead, it encompasses the many reciprocal relationships between people and land, including traditional livelihoods based on keystone foods within the ecosystem.

Along with a broader concept of health, I-BRACE also includes a cyclical decision-making process that gathers community input. In addition, ancient community solutions such as clam gardens help integrate traditional ecological practices and are implemented alongside atmospheric data, climate



Photo courtesy of Front and Centered

projections, and more. In this way, the Swinomish Tribe develops comprehensive and evolving short and long-term solutions that honor physical and spiritual connections and contribute to healthier people within a healthier community.

EQUITABLE AND LIFE-AFFIRMING

Similarly, CHanGE also partners with another Seattle-area organization leading at the forefront of climate and health as the largest coalition led by communities of color in the Pacific Northwest. Front and Centered recognizes that systemic injustices put communities of color, people with lower incomes, and Indigenous people on the frontlines of climate and health emergencies.

Esther Min, CHanGE alumna and UW faculty, serves as a director of environmental health research and partnerships for Front and Centered. "CHanGE and Front and Centered co-launched a Collaboratory that asked, 'How do we co-create knowledge and

evidence that prioritizes community voices?" she explains. "That leadership approach of prioritizing communities and asking what they want to see is critical, rather than research and funding driving the ideas."

Front and Centered is responding to acute threats and advancing an agenda to build a more healthy and sustainable future that relies on community resilience and social equity. This includes approaches that focus on place-based strategies, equitable decision-making processes, and an emphasis on renewable and equitable energy and economy.

TRANSFORMING THE LARGER STAGE

These critical efforts exist within a much larger context. That's why a crucial part of this work is the systemic, local to global, interdisciplinary support that CHanGE provides. CHanGE seeks to inform inter-agency connections and policy changes that

create more just, agile and responsive decision-making.

"As someone with a toxicology background, I'm familiar with clean water standards," says Donatuto. "You can assess what's in a river or a lake or an ocean, and if you go over safe thresholds, there are ramifications or mechanisms to address them. At the intersection of climate and health, we don't have that ability yet. If the community says X is impacted and we want to do Y, they don't yet have the policy safety net to back them up."

"Getting to the fundamentals of environmental justice and health in our nation, where you live determines how long you are going to live," says Min. "It shouldn't matter where you live. Present and future public health leaders need to center research and decision-making around communities, involving people in meaningful ways for the greater health of us all."



“We need philanthropic partners who have the same ambitious, transformative vision that we do and who are ready to work with us.”

— CHanGE Director Jeremy Hess

FUNDERS OF THE FUTURE

“CHanGE faculty have been working on these issues globally to locally for a very long time with deep experience and insights,” says Hess. “With the appropriate levels of investment, we have the expertise, the vision and the ambition to put together tools that can fundamentally change how we perceive, address, and reduce these risks.”

SUPPORT THE WORLD WE WANT

With three connected investment areas, your action today allows our region’s experts to advance solutions that address the most pressing, life-threatening climate-related health issues of our time.

Prior to 2021, less than 0.04 percent of the National Institute of Health (NIH) annual budget went to efforts connecting climate and health. The result? Top health and climate problem-solvers must continually scramble to fit solutions, relationships, and expertise into prescribed funding slots while strategic approaches languish. As federal funding catches up to the need, help fill these important gaps. We welcome endowed or outright gifts at any level. Our fundraising priorities include:

1. SUPPORTING STUDENT CHANGEMAKERS

Allow students to become the future leaders we need while helping to solve our most pressing climate and health problems. Our aim is to increase the number of students who represent communities on the front lines of climate and health injustice. Your support will help ensure that more students can maximize their understanding of climate and health problems and develop solutions through participation in strategic partnerships with communities and government entities.

2. SUSTAINING AND STRENGTHENING STRATEGIC PARTNERSHIPS

Support community-centered collaborations that inform CHanGE’s research and technology development. Flexible resources allow for the development of trust-based relationships and strategic and iterative partnerships with frontline communities locally, nationally and around the world. These relationships lead to more comprehensive understanding of the problems and equity-based solutions that benefit everybody.

3. DEVELOPING NEXT-GENERATION CATALYTIC TOOLS

Build the capacity to meet today’s climate and health challenges head-on by helping CHanGE advance and scale its next-generation technical support. A new suite of responsive, integrated applications and analytics tools will position communities and governments to better assess risks and prioritize action. Through the development of first-of-its-kind climate-oriented software solutions, CHanGE will provide decision-makers with the intelligence they need to protect community health both close-to-home and world-wide.



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