

### University of Washington/University of BC/Simon Fraser University/Oregon State University/Boise State University

# Annual Cascadia Symposium on Environmental, Occupational, and Population Health Impacts of a Changing Climate on Worker Health, Vulnerable Populations, and Infectious Disease.

#### Thursday, January 09, 2025

#### 11:00a - 11:45a Registration

Location: Semiahmoo Pre-function Area (Outside of Blakely/Cypress)

#### 11:30a - 1:30a Buffet Lunch

Location: Semiahmoo Pre-function Area & Blakely/Cypress

#### 11:45a - 12:00p Welcome

Location: Blakely/Cypress Chair: Christopher Simpson

#### 12:00p - 1:00p David V. Bates Memorial Lecture:

Vivek Shandas Title: Sweat Equity: An ecology of everyday life on a warming planet

Timekeeper: Taryn Amberson

#### 1:00p - 1:20p Break

# 1:20p – 4:15p Joint Session on Cross Cutting Themes

Chair: Chris McLeod Timekeeper: Alexi T. Hu

## 1:20p – 2:00p Impacts of a Changing Climate on Worker Health

Session Chair: Chris McLeod (UBC) and Cynthia Curl (BSU)

Cheryl Peters (UBC): The Growing Threat of Climate Change to Worker Health in Canada

Elena Austin (UW): Advancing Research on the Health Impacts of Climate Disasters on Worker Populations; Opportunities and Challenges

#### 2:00p - 2:40p Impacts of a Changing Climate on Vulnerable Populations

Session Chair: Ofer Amram (WSU)

Stephanie Cleland (SFU): Childhood in a Changing Climate: The Health Effects of Early Life Exposure to Heat and Smoke Joan Casey (UW): Rising seas, temperatures, and inequities: hot takes on health and justice in a changing climate



## 2:40p – 3:20p Impacts of a Changing Climate on Infectious Disease

Session Chair: Christopher Simpson

Peter Rabinowitz (UW): Climate change and infectious disease: implications for workers

Renee Codsi (UW): Climate Change: drivers of migration and infectious disease

### 3:20p – 4:00p Panel Discussion on Crosscutting Themes

Moderator: Chris McLeod (UBC)

Timekeeper: Alexi T. Hu

Panelists:

• Cheryl Peters (UBC)

- Elena Austin (UW)
- Stephanie Cleland (SFU)
- Joan Casey (UW)
- Peter Rabinowitz (UW)
- Renee Codsi (UW)

#### 4:00p - 4:15p Break

# 4:15p - 5:30p Ignite/Lightning

Chair: Chris Buse

Timekeeper: Raine Abad

- 1. Hallah Kassem (UW student): Community engagement in Indigenous Food systems contamination studies: A scoping review
- 2. Spencer Lee (UBC student): Mid-term Projections of Fine Particulate Matter (PM2.5) Exposure from Anthropogenic and Wildfire Sources in British Columbia, Canada
- 3. Cecilia Martindale (UW student): Exploring co-exposures of temperature and glyphosate in the United States
- 4. Madalyn Nones (OSU student): Community Contexts of Health: A Comparative Study of Health Risk Factors and Outcomes Across 774 Communities in 25 Countries in the PURE Study
- 5. Harman Sandhu (UBC student): *Investigating differences in return-to-work outcomes for workers with work-related chronic pain and concurrent psychological injuries in British Columbia*
- 6. Sydney Spencer (UW student): Birth Experiences of U.S. South Asian Mothers on Employer-Sponsored Health Insurance
- 7. Meredith Spivak (BSU Student): Systematic Review of Non-Invasive Biomonitoring of Persistent Pesticides in Wildlife: The Use of Feathers and Fur to Inform a One Health Sentinel Surveillance System
- 8. Shayna Uhryn (UBC student): Comparison of Different Levels of Woodsmoke Exposure on Lung Health.
- 9. Lauren Blair Wilner (UW student): The National Flood Insurance Program (NFIP): spatial distribution of designations, policies, and claims across the United States



## 5:45p – 7:00p Poster Session

Location: Blakely/Cypress & Pre-function Area

Poster viewing and Pre-dinner Networking (Authors and Titles listed on page 7-8)

No host bar. Snacks sponsored by the Pacific Northwest Center for Occupational Safety and Health (PNASH) and the Northwest Center for

Occupational Health and Safety (NWCOHS)

## 7:00p - 9:00p Buffet Dinner

Location: Semiahmoo Pre-function Area & Blakely/Cypress

## 9:00p - 11:00p Networking and Social

Location: Packers Bar



and Preterm Birth Risk in California

# Friday, January 10, 2025

# 8:00 - 8:30 Breakfast

Location: Semiahmoo Pre-function Area & Blakely/Cypress			
8:30 – 9:50 Wildfire Smoke: Exposure and Health Location: Blakely/Cypress Chair: Michael Brauer Timekeeper: Yanbo Li	8:30 – 9:50 Climate & Health  Location: Saltspring/Saturna Chair: Chris Buse Timekeeper: Judy Wu	8:30 – 9:50 Community Health  Location: Lopez/Pender Chair: Ofer Amram Timekeeper: Anna Ivanov	
<b>8:30 – 8:45:</b> Mary Crocker (UW): Engaging Stakeholders to Design a Wildfire Smoke Action Plan for Children with Asthma	<b>8:30 – 8:45:</b> Chris Buse (SFU): Health impacts of climate change on health system practitioners across British Columbia, Canada	8:30 – 8:45: Kiffer Cards (SFU): Addressing "Lonelygenic" Environments Through Evidence- Based Public Health Guidelines for Social Connection	
<b>8:45 – 9:00:</b> Logan Dearborn (UW student): Joint effects of wildfire smoke and extreme heat on preterm births in California (2018- 2020)	8:45 – 9:00: Catherine Karr (UW): Environmental Influences on Child Health Outcomes (ECHO) - Yakima: Update and opportunities	8:45 – 9:00: Clarissa Carlos (UW student):  Evaluating a Participatory Research Study in an Environmental Justice Community: Using Rapid Extraction Analysis to Enhance Partnership and Increase Local Empowerment	
9:00 – 9:15: Stephanie Foster (OSU): Exposures at Public Schools and Childcare Centers in the United States and Implications for Children's Health	<b>9:00 – 9:15:</b> Kaylie Higgs (SFU): Addressing the Mental Health Impacts of Climate Change in British Columbia: A Multi-Component Government-Community-Academic Intervention	9:00 – 9:15: Anna Ivanov (WSU student): The Environmental Health Disparities Map: The Role of the Food Environment in Advancing Health Equity in Washington State	
9:15 – 9:30: Stepahanie Cleland (SFU):  Developing Robust Metrics to Characterize  Prolonged, Episodic Exposure to Wildfire  Smoke for Studies on Chronic Health  Outcomes	<b>9:15 – 9:30:</b> Judy Wu (SFU student): Climate & health Regional Differences in Eco-anxiety Among British Columbian Youth: Findings from the 2024 Youth Development Instrument	9:15 – 9:30: Margaret McGregor (UBC): Integrating Environmental Justice Approaches into Unconventional Oil and Gas Development and Health Outcomes Research – How Are We Doing?	
<b>9:30 – 9:45</b> : Rachel Sklar (UW): Renovation Status and Cooling Type Modify the Association Between Wildfire Smoke Exposure	<b>9:30 – 9:45</b> : Dan Trifone (Multnomah County Health Department): <i>Retrospective Evaluation of</i> the 2023 Regional Climate Health Monitoring Report: Improving Processes for Future Iterations	9:30 – 9:45: Panel Discussion: "Community, Health, and Solutions: Bridging Research and Action in a Changing Climate"	



10:10 – 11:30 Heat and Health in a changing climate	10:10 – 11:30 Occupational Health  Location: Saltspring/Saturna	10:10 – 11:30 Environmental Health and Epidemiology
Location: Blakely/Cypress	Chair: Cynnie Curl	Location: Lopez/Pender
Chair: Perry Hystad	Timekeeper: Meredith Spivak	Chair: Chris McLeod
Timekeeper: Madalyn Nones		Timekeeper: Hilary McLeland-Wieser
<b>10:10 – 10:25:</b> Kirstin Yeomans (OSU Student): Acute temperature-related mortality and hospitalizations in heart failure patients: Evidence from the Global Congestive Heart Failure Registry	<b>10:10 – 10:25:</b> Cheryl Peters (UBC): Overrepresentation of New Workers in Jobs with Multiple Carcinogen Exposures in Canada	<b>10:10 – 10:25:</b> Carson Mowrer (OSU student): Predicting Noise at High Spatial Resolution from a Systematic Measurement Campaign in Portland, Oregon
<b>10:25 – 10:40:</b> Cat Hartwell (Public Health - Seattle & King County): Co-Designing Heat Adaptation Solutions Through Community-Based Participatory Model-Building in King County	<b>10:25 – 10:40:</b> Emily Heer (UBC): Extreme weather events caused by climate change: Estimating the prevalence of at-risk workers in Canada	<b>10:25 – 10:40:</b> Renee Codsi (UW Student): Acceptance of tongue swabs for tuberculosis screening among migrants: a qualitative study
<b>10:40 – 10:55:</b> Sarah Henderson (BCCDC): Which medications influence the risk of mortality during extreme heat events? A novel approach using machine learning	<b>10:40 – 10:55:</b> Paul Demers (UBC): Potential for an Asbestos Exposure Registry to Contribute to Primary and Secondary Prevention	10:40 – 10:55: Corbin Schuster (OSU): Community-Centered Approaches to Understanding Barriers to Protection Against Wildfire Smoke Exposure Among Vulnerable Populations in the Yakima Valley
<b>10:55 – 11:25:</b> Panel Discussion: "Heat, Health, and Solutions: Bridging Research and Action in a Changing Climate"	<b>10:55 – 11:10:</b> Natalie Rejto (UW postdoc): Safety and Health Investment Project: Workplace Infection Control on Dairy farms	<b>10:55 – 11:10:</b> Christine Loftus (UW): Barriers and facilitators of early-life wildfire smoke protection in a rural, agricultural community: A community-led research study
	11:10 – 11:25: Panel Discussion: "Occupational Exposures, Health, and Solutions: Bridging Research and Action in a Changing Climate"	<b>11:10 – 11:25:</b> Marissa Childs (UW): Climate & health Climate warming is expanding dengue burden in the Americas and Asia



### 11:30-12:30 Student Award Winner Presentations and Wrap-up

Location: Blakely/Cypress Chair: Christopher Simpson Timekeeper: Hunt Solaro

**11:30 – 11:40** Alexi T. Hu (UBC student): *Identifying Vulnerable Populations to Extreme Heat Using a Cumulative Heat Exposure Threshold Algorithm in Western Metro Vancouver (2008-2023)* 

**11:40 – 11:50** Callan Krevanko (UW student): Cannabis sensitization and allergy in cannabis industry workers, recreational users, and non-users

**11:50 – 12:00** Yanbo Li (UBC student): Wildfire smoke-specific PM2.5 and SARS-CoV-2 test positivity (infections) and hospitalization risks through 2020-21 wildfire periods in British Columbia, Canada



#### **Posters**

## Thursday, January 9, 5:45 – 7:00pm Authors attend: 6:00 – 7:00pm

Location: Blakely/Cypress

- 1. Prem Gundarah (SFU student): Building Resilience to Emerging Airborne Threats and Heat Events: The BREATHE Project
- 2. Lilian Liu (UW student): A decision-support framework during wildfire smoke: rapid questionnaire design for perishable wildfire smoke exposure and health outcomes data collection
- 3. Laura Minet (U.Vic.): Analysis of Flaring Activities at Liquefied Natural Gas (LNG) Export Facilities Worldwide
- 4. Laura Minet (U.Vic.): Analyzing Effective Procedures During Wildfire Smoke Events Through Intervention Field Tests
- 5. Carson Mowrer: (OSU student): Residential Radon Exposure and Brain and Central Nervous System Cancer Risk in the Women's Health Initiative 1993 to Mid-2024
- 6. Catherine Slavik (U. Oregon): Seeing is believing?: How viewing radon risk maps impacts residential testing intentions
- 7. Raine Abad (SFU student): Opportunities for Open Science and Data to Support Cumulative Effects Assessment: An environmental scan of Canadian Literature
- 8. Alexandra Beukens (SFU student): AMR Stewardship in action: A policy scan on antimicrobial use in BC and Ontario dairy industries
- 9. Chris Buse (SFU): Risk communication for neglected tropical disease elimination and reduction in the Arusha and Monduli districts of the United Republic of Tanzania: A qualitative Study
- 10. Diana Ceballos (UW): Testing a Lead Take-Home Intervention in the Homes of Construction Workers: RECLEAN Pilot Study
- 11. Christine Chen (UBC student): The Wildfire Age: Genetic Susceptibility to Air Pollution Health Effects in Children
- 12. Yeon Cheong (UW student): Sustainable aviation fuel impacts on aircraft ultrafine particle emissions and community health implications
- 13. Autumn Dennistoun (UW student): Factors Related to Substance Use Awareness in Washington State Commercial Fishermen
- 14. Abigail Gilbert (UW student): Characterizing Zinc, Lead, and Mercury Concentrations and Variability in Human Hair Samples using Laser Ablation ICP-MS.
- 15. Jonika Hash (UW student): A Pilot Project Examining Ultrafine Particulates, Sleep, and Epigenetic Clocks Among an Underserved Sample of Mother-Child Dyads
- 16. Hilary McLeland-Wieser (UW student): Municipality Level Dense Vegetation and Dengue Incidence in Colombia
- 17. Rica Monis (UW student): Assessing the Seaweed Genus Ulva's Carbon and Nutrient Profile as a Potential Soil Amendment for Enhanced Agricultural Productivity
- 18. Abdullah Al Nayeem (OSU student): Estimating the contributions of different tourism sectors to NOx and PM 2.5 emissions in the Netherlands



- 19. Katharine Teigen (UW student): The Mental Health Impacts of Wildfire Exposure: A Scoping Review and Critical Evaluation of the Quantitative Evidence
- 20. Katherine White (UBC student): Interdisciplinary and mixed methods approaches to extreme heat: a community participatory study of older adults' experiences in Metro Vancouver
- 21. Judy Wu (SFU student): Eco-emotions in Children and Adolescents: A rapid review of qualitative literature
- 22. Ingrid Jarvis (UBC postdoc): Neighborhood playability and early childhood development in Metro Vancouver, Canada
- 23. Solmaz Amiri (WSU): Impact of Mobility and Nature on Mental Health during the Covid-19 Pandemic: Leveraging Google Location History
- 24. Amarachi Ezeocha (SFU student): One Health Communications Platform: Assessing the Information Needs of Health Practitioners