

Final Program

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

Annual Cascadia Symposium on Environmental, Occupational, and Population Health

Borders, Intersections and Boundaries: Issues at the Nexus of Environment, Occupation and Population Health

Thursday, January 11, 2024

11:00 – 11:45 Registration

Location: Semiahmoo Pre-function

11:30 – 1:30 Buffet Lunch

Location: Semiahmoo Pre-function/Blakely/Cypress

11:45 – 12:00 Welcome

Location: Blakely/Cypress

Chairs: Michael Brauer (UBC), Chris McLeod (UBC)

12:00 – 1:00 David V. Bates Memorial Lecture: The New Pollution

Sarah Henderson

Scientific Director of Environmental Health Services, BC Centre for Disease Control; Associate Professor, School of Population and Public Health, University of BC

1:15 – 4:15 Joint Session on Cross Cutting Themes

Chair: Michael Brauer (UBC)

1:15 – 2:15 Wildfire smoke

Stephanie Cleland (SFU): *The cognitive and mental health impacts of wildfire smoke exposure*

Christopher Pyke (Labor & Industries Washington): *The Washington State Wildfire Smoke Rule*

Mona Shum (Aura Health and Safety, UBC): *How do you protect workers from wildfire smoke in the absence of occupational regulations?*

2:15 – 2:30 Break

2:30 – 3:30 Disparities and inequalities in a changing world of work

Presenters: Anjum Hajat (UW), Cynthia Curl (Boise State), Chris McLeod (UBC)

3:30 – 4:15 Occupational exposure to fentanyl

Presenters: Marissa Baker (UW), Hugh Davies (UBC), Marc Beaudreau (UW), Matthew Jeronimo (UBC)

<p>4:15 – 4:45 Break</p>
<p>4:45 – 5:45 Ignite/Lightning Session Chair: Christopher Simpson (UW) Timekeeper: Chizitara Nkwopara (UBC)</p>
<ol style="list-style-type: none"> 1. Allison Clonch (UW student): <i>Characterizing the H-2A and H-2B foreign visa workforce in Northwest agriculture, fishing, and forestry</i> 2. Angel Kennedy (SFU student): <i>Educating about climate change: Lessons for eco-social health literacy for youth and children</i> 3. Sigride Asseko (OSU student): <i>Household air pollution and polycyclic aromatic hydrocarbons and chemical mixture exposure levels in low- and middle-income countries</i> 4. Joan Casey (UW): <i>The 2021 heat dome event and preterm birth in Oregon and Washington State</i> 5. Jorge Rivera-Gonzalez (UW student): <i>Microbiome comparison of dairy workers and community controls in the Yakima Valley</i> 6. Matthew Bozigar (OSU): <i>A Cascadia collaboration: Simultaneously addressing community concerns and scientific research gaps in transportation noise exposures for Portland, Oregon</i> 7. Meredith Spivak (BSU student): <i>Sex differences in acute pesticide poisonings among farm workers in Washington</i> 8. Rachel Ziejka (UW student): <i>Hunting dogs as sentinels for avian influenza: Examining zoonotic disease transmission risk and human-canine interactions</i> 9. Chris Simpson (UW): <i>Measuring participant exposure to terpenes in a forest bathing clinical trial</i> 10. Pranav Srikanth (UW student): <i>Workplace needs and well-being of transit operators related to exposure to passenger drug use</i>
<p>5:45 – 7:00 Poster Session Location: Semiahmoo Pre-function/ Blakely/Cypress No host bar Poster viewing and pre-dinner networking Authors and titles listed on page 5</p>
<p>7:00 – 9:00 Buffet Dinner Location: Blakely/Cypress</p>
<p>9:00 – 11:00 Networking and Social Location: Packers Bar</p>

Final Program

Friday, January 12, 2024

8:00 – 8:30 Breakfast

Location: Semiahmoo Pre-function

8:30 – 9:50 Wildfire Smoke: Assessing and Managing Exposure and Health Impacts in Cascadia

Location: Blakely/Cypress
Chair: Michael Brauer (UBC)
Timekeeper: Chizitara Nkwopara (UBC)

8:30 – 8:45: Catherine Slavik (UO): *How does the use of and adherence to Air Quality Indices vary among parents in western US and Canada? Exploring barriers to reducing children’s exposure to wildfire smoke*
8:45 – 9:00: Mary Crocker (UW): *Wildfire smoke communication and knowledge gaps for pediatric pulmonary providers*
9:00 – 9:15: Ravneet Mundi (SFU student): *Building community resilience to reduce fire smoke exposure*
9:15 – 9:30: Stephanie Cleland (SFU): *Population-level exposure to co-occurring wildfire smoke and extreme heat events in British Columbia, 2010 – 2020*
9:30 – 9:45: Eric Coker (UBC): *Enhancing wildfire smoke exposure assessment for epidemiological research in British Columbia, Canada with low-cost sensors and machine learning*

8:30 – 9:50 Workplace Health

Location: Saltspring/Saturna
Chair: Chris McLeod (UBC)
Timekeeper: Andrea Jones (UBC)

8:30 – 8:45: Lindsay Forsman-Phillips (UBC): *Tailored sun safety messages for outdoor workers*
8:45 – 9:00: Robert Macpherson (UBC): *Work injury and disability among fisheries, aquaculture, maritime and land transportation workers in British Columbia, Canada*
9:00 – 9:15: Shelley Stephan-Recaido (UW): *Characterizing the burden of occupational chemical exposures by sociodemographic groups in the United States: A job exposure matrix-based approach*
9:15 – 9:30: Taryn Amberson (UW student): *Understanding traumatic stress in emergency nurses: A systematic review*
9:30 – 9:45: Anita Minh (UBC): *Making work “work”: Adaptive economic engagement for people facing barriers to employment*

8:30 – 9:50 Resource Extraction: Health and Environmental Impacts

Location: Lopez/Pender
Chair: Cynthia Curl (BSU)
Timekeeper: Stephanie Skourtes (UBC)

8:30 – 8:45: Ashley Tseng (UW student): *Tunes we’re not rocking out to: Substantial presence of heavy metals in Escherichia coil isolates from the Salish Sea ecosystem*
8:45 – 9:00: Farrah Shroff (UBC): *Light at the end of the tunnel: Mining justice and health*
9:00 – 9:15: Maeve Leduc (SFU student): *First Nations-led cumulative effects management to restore, protect, and advance community and ecological health.*
9:15 – 9:30: Margaret McGregor (UBC): *The human health effects of unconventional oil and gas development (UOGD): A scoping review of epidemiologic studies*

9:50 – 10:10 Break and check out from hotel rooms

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<p>10:10 – 11:30 Climate Change</p> <p>Location: Blakely/Cypress Chair: Perry Hystad (OSU) Timekeeper: Dawn Mooney (UBC)</p>	<p>10:10 – 11:30 Environmental and Occupational Epidemiology</p> <p>Location: Saltspring/Saturna Chair: Melanie Gorman Ng (BCCSA) Timekeeper: Anjini Sam Chee (UBC)</p>	<p>10:10 – 11:30 Exposure and Health Impact Assessment Tools</p> <p>Location: Lopez/Pender Chair: Christopher Buse (SFU) Timekeeper: Ismail Shawish (UBC)</p>
<p>10:10 – 10:25: Kirstin Yeomans (OSU student): <i>Acute temperature exposure and mortality in the prospective urban and rural epidemiology cohort: A case-crossover study in 764 communities and 22 countries.</i></p> <p>10:25 – 10:40: Katherine White (UBC student): <i>Barriers to extreme heat mitigation and adaptation in older adult households: Mixed methods analysis of a citizen science study in the City of Vancouver</i></p> <p>10:40 – 10:55: Judy Wu (SFU student): <i>Climate concern and eco-anxiety in BC youth: Findings from the 2023 youth development</i></p> <p>10:55 – 11:10: Sarah Rudrum (Acadia University): <i>Diagnosing climate change: Health care provider responses to extreme weather</i></p> <p>11:10 – 11:25: Alexi Hu (UBC student): <i>Responding to Rising Temperatures: Reevaluating BC’s Heat Alert Thresholds</i></p>	<p>10:10 – 10:25: Josh Alampi (SFU student): <i>Combined prenatal exposures to folate and lead and the development of autistic-like behaviors in a Canadian pregnancy cohort</i></p> <p>10:25 – 10:40: Ofer Amran (WSU): <i>Where do people access food? Using mobile phone location data for food environment research</i></p> <p>10:40 – 10:55: Matthew Bozigar (OSU): <i>Domestic radon exposure and childhood cancer risk in 722 countries in the United States, 2000 to 2018</i></p> <p>10:55 – 11:10: Kiffer Card (SFU): <i>The concerned steward effect: Exploring the relationship between climate anxiety, psychological distress, and self-reported climate related behavioural engagement</i></p>	<p>10:10 – 10:25: Chris Zuidema (UW): <i>Evaluation of Orthotrichum lyellii moss as a biomonitor of diesel exhaust</i></p> <p>10:25 – 10:40: Stephanie Foster (OSU): <i>Have flame retardant chemical exposures changed over time? An exposure assessment using silicone wristbands and home environment factors among Oregonian preschool-aged children across a 10-year period</i></p> <p>10:40 – 10:55: Emily Gemmell (UBC student): <i>“Room to howl?”: Application of a novel playability metric to Canadian urban neighbourhoods</i></p> <p>10:55 – 11:10: Max Nonnamaker (Multnomah County EHS Division): <i>You are here? Expanding our approach to representing people, places and lived experiences in interactive environmental health mapping tools</i></p> <p>11:10 – 11:25: Carson Mowrer (OSU student) <i>Systematic measurement of community noise exposures in Portland, OR: Implications for environmental justice and population health</i></p>
<p>11:30-12:30 Student Award Winner Presentations and Wrap-up</p> <p>Chair: Chris McLeod (UBC) Location: Blakely/Cypress</p> <p>11:30 – 11:40 Xiaocong Guo (UBC student): <i>Heat related illness among workers in British Columbia: Extreme hot weather in 2021 compared to 2001 – 2020</i></p> <p>11:40 – 11:50 Sammi Cheung (UW student): <i>Comparison of wastewater metagenomes between low-income and high-income suburbs in Harare, Zimbabwe</i></p> <p>11:50 – 12:00 Justin Fernandes (SFU student): <i>Evaluation of cleaner air spaces with the VCH region</i></p>		

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Posters

Thursday, January 11, 5:45 – 7:00 pm

Authors attend 6:00 – 7:00 pm

Location: Blakely/Cypress

1. Ahmad Jalil (UNBC student): *Assessing the health impacts of particulate bound metals in downtown Prince George: A health indexing study on the differential effects of high and low dust days*
2. Abigail Gilbert (UW student): *Examining the utility of LA-ICP-MS for detection of time-resolved zinc exposures and determination of hair growth rate*
3. Alya Govorchin (SFU student): *Decolonizing fire governance: First Nations sovereignty and health during wildfire emergencies*
4. Ashley Moore (UW student): *Synthesizing the evidence for public health practitioners: natural hazards and health factsheets*
5. Angel Kennedy (SFU student): *Centering the mental health of youth and children during the climate crisis: lessons from interviews with teachers on the role of art, hope and action in education*
6. Ben Loosley (Vancouver Coastal Health): *Assessing exposure risks to healthcare workers who crush oral medications*
7. Jennifer Bettis (Border Policy Research Institute): *Understanding inequities associated with the use of travel measures during the COVID-19 pandemic: The case of the US-Canada border*
8. Christine Yanagawa (SFU student): *Exploring equitable bike share: A mixed methods study on Vancouver public bike share access across neighbourhoods*
9. Colleen Moore (UBC student): *Dust (PNOS) exposures in a paper mill*
10. Diana Ceballos (UW): *Using colorimetric wipes to characterize lead surface levels in construction workers' homes and cars*
11. Erin Tavares (Vancouver Coastal Health): *Optimizing portable high efficiency particulate air (HEPA) purifier use in BC long-term care facilities*
12. Han-Jiun Ke (UBC student): *What does playable look like? Assessing features associated with perceived playability in neighborhood environments among Canadian families*
13. Hilary McLeland-Wieser (UW student): *Evaluating bovine specific IgE in relation to cow exposure risk and personal protective equipment use among dairy workers*
14. Shirley Huang (UW student): *Estimates of population highly annoyed from transportation noise in the United States: an unfair share of the burden by race and ethnicity*
15. Ingrid Jarvis (UBC): *The relationship between residential green space visibility and cognitive functioning in adult respondents of the Health and Retirement Study*
16. Jane Dai (UW student): *Healthy food service guidelines in worksites and institutions: a scoping review and research agenda*
17. Jesse Cooper (Vancouver Coastal Health): *A contingency plan for N95 filtering facepiece respirator (FFR) shortages: Vaporized hydrogen peroxide decontamination of N95 FFRs*
18. Jianna Gimenez (BSU student): *Assessing chronic exposure to glyphosate using urine analysis*
19. Justin Fernandes (SFU student): *Evaluation of cleaner air spaces with the VCH region*

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20. Kaylee Byers (SFU): *Navigating the information landscape: Barriers and priorities in long COVID care*
21. Kayli Jamison (SFU student): *Chronic barriers: Long COVID patients' odysseys within the healthcare system*
22. Kiffer Card (SFU): *"Complex, complicated grief for both of us": The new dynamics of long COVID relationships*
23. Kiera Tsakonas and Simi Badyal (SFU students): *Rapid review of the impacts of climate change on the healthcare workforce: Implications for adaptation across BC's health system*
24. Kira Johnson (SFU student): *Advancing interspecies justice in planetary health*
25. Bradley Longman (OSU student): *Key insights from malaria outbreak investigations in Africa, 2000 – 2022*
26. A. Mallory Thomas (UW student): *A one health approach to land tenure and zoonotic disease exposure for pastoralists in Marsabit County, Kenya*
27. Madalyn Nones (OSU student): *The use of predictive modeling to predict all-cause mortality incidence due to climate change-induced extreme heat in low- and middle-income countries: a systematic review*
28. Raissa Shrestha (UBC): *Compliance with sun protection policies by lifeguards at Toronto's outdoor pools, wading areas and beaches*
29. Spencer Lee (UBC student): *Outdoor air pollution exposure and adult asthma incidence: A systematic review and meta-analysis*
30. Suhail Marino (UBC) presenting for Andrea Jones/ Chris McLeod (UBC): *What occupational health and safety management system components predict firm work injury rates in the British Columbia construction industry?*
31. Suhail Marino (UBC): *Towards safer workplaces: Learning from experiences in the Health and Safety Excellence program in Ontario, Canada*
32. Tina Afshar (UBC student): *Acute vaping cessation is associated with an increase in nasal inflammatory mediators*
33. Sarah Chae (SFU student): *Case-based learning approach to discuss the roles of physicians in the face of the planetary health crisis in British Columbia*
34. Stephanie Cooper (SFU student): *Changing climates and changing practices – how can we increase tick surveillance by vets?*
35. Rita Bellanca (UW student): *Occupational health support for personnel interacting with animals*