

British Columbia Environmental and Occupational Health Research Network

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Poster Abstracts



British Columbia Environmental and
Occupational Health Research Network

Ambient Air Pollution

- 1 Allen, Ryan Acute Respiratory Effects from Personal Exposure to Ambient and Nonambient Particulate Matter among Children with Asthma
- 2 Kardjaputri, Alice Differential Protein Expression by MALDI-TOF-MS Following The Deposition of Organic Particulate Matter Mimics
- 3 MacIntyre, Elaina Investigation of Air Pollution and Otitis Media in a Population-Based Birth Cohort
- 4 Barn, Prabjit Infiltration Of Forest Fire And Residential Wood Smoke: An Intervention Study To Assess Air Cleaner Effectiveness
- 5 Nethery, Elizabeth Evaluation of a Land Use Regression Model to Assess Exposure to Air Pollution During Pregnancy: Use of GPS Tracking and Personal Monitoring
- 6 Setton, Eleanor Air Pollution and Exposure Modelling

Environmental Policy / Knowledge Translation

- 7 Peters, Cheryl Environmental and social impacts of bauxite mining in Orissa, India through a Corporate Social Responsibility (CSR) lens
- 8 Elmieh, Negar The role of lifestyle characteristics and risk perceptions in preventing West Nile virus Disease.
- 9 Winters, Meghan The Impact of Climate on Utilitarian Bicycling: Results of a Canadian Study
- 10 Nicol, Anne-Marie News coverage of emerging health hazards: *Cryptococcus gattii* and West Nile virus
- 11 Giustini, Dean Expert searching of the grey literature: two collaborative wikis

Environmental Toxins

- 12 Muttray, Annette What Connects Mussels With Environmental And Human Health
- 13 Chan, Laurie Reconstructing Historical Mercury Exposure from Beluga Whale Consumption among Inuit in the Mackenzie Delta
- 14 Elmieh, Negar A Probabilistic Assessment Of Malathion Spray Exposures (PAMSE) For The Prevention Of West Nile Virus
- 15 Chan, Laurie Development And Application Of A Biochemical Marker For Mercury In Humans
- 16 Ong, Corinne Molecular Epidemiology of Two Emerging Food and Waterborne Parasitic Diseases
- 17 Uhlmann, Sasha Associating reportable communicable diseases with drinking water source and type: Using epidemiology and GIS mapping
- 18 Bartlett, Karen Successful environmental colonization of the mammalian pathogen, *Cryptococcus gattii*

Epidemiology Methods

- 19 Arrandale, Victoria Dyspnea in an occupational cohort: Evaluating two methods for analysis of longitudinal respiratory symptoms
- 20 Trask, Catherine Direct recruitment of workers and worksites in heavy industry for occupational field studies

Occupational / Environmental Hygiene Methods

- 21 Johnson, John Does radon present a health risk to BC workers?
- 22 Chan, Laurie Dietary Exposure To Perfluorinated Compounds In Nunavut
- 23 Chu, Winnie Cytotoxic drug exposure in British Columbia hospitals
- 24 Maal-Bared, Rasha The distribution of pathogenic bacteria on different surface types in agricultural watersheds: can we monitor biofilms to save lives?
- 25 Williamson, Jill Genome Wide Analysis of Single Nucleotide Polymorphisms in *Cryptosporidium hominis* organisms

Occupational Hygiene Methods

- | | | |
|----|---------------|--|
| 26 | Hon, Chun-Yip | Methods for Estimating Airborne Exposure to Healthcare Staff due to Cleaning of Various Spilled Organic Products |
| 27 | Hon, Chun-Yip | Evaluation of the Accuracy of Select Mathematical Models to Predict Airborne Concentrations from Small Indoor Spills |

Occupational Safety / Injury

- | | | |
|----|-------------------|---|
| 28 | Hackett, Georgina | Improving the Health and Safety of Community Health Workers |
| 29 | Kling, Rakesh | Patient Factors Associated with Violence or Aggression in an Acute Care Hospital |
| 30 | Dai, Sulan | Coastal Communities not out of the Woods: Occupational Health in British Columbia's Forest Sector |
| 31 | Horn, Charles | Working Safe: Injury prevention programs in Aboriginal enterprises |

Mental Health / Work Environment / Stress

- | | | |
|----|---------------|--|
| 32 | Daines, Donna | Developing and Evaluating a Tool to Examine Quality Workplace Environments for Nursing Faculty in Schools of Nursing in BC |
| 33 | Gilbert, Merv | Antidepressant Skills in the Workplace: Dealing with Mood Problems at Work |
| 34 | Samra, Joti | A Comprehensive Framework For Workplace Mental Health & Addiction: Practical & Research Implications |
| 35 | Davies, Hugh | Noise, Stress and Cardiovascular Disease – A Research Program |

Student presenters in green

Ambient Air Pollution

Poster	Name	Title	Abstract
1	Allen, Ryan Simon Fraser University	Acute Respiratory Effects from Personal Exposure to Ambient and Nonambient Particulate Matter among Children with Asthma	Exposure to fine particulate matter (PM _{2.5}) air pollution consists of exposure to both ambient-generated PM _{2.5} (E _{ag}) and non-ambient PM _{2.5} (E _{na}), i.e. particles from indoor sources and personal activities. We estimated associations between daily changes in these PM _{2.5} exposure categories and indicators of respiratory health among 13 children with asthma in Seattle. Particle composition analyses suggested that E _{ag} was due largely to combustion particles. Associations with lung function and airway inflammation were found only for E _{ag} . These results suggest that among these children the ambient-generated component of PM _{2.5} exposure is more irritating than the non-ambient component, perhaps due to differences in particle composition.
2	Kardjaputri, Alice ¹ Cruz-Sanchez, Teresita ¹ Haddrell, Allen ¹ Agnes, George ¹ van Eeden, Stephan ² ¹ University of BC ² Simon Fraser University	Differential Protein Expression by MALDI-TOF-MS Following The Deposition of Organic Particulate Matter Mimics	Inhalation of ambient particles can cause lung inflammation that leads to pulmonary and cardiovascular diseases. We qualitatively measure the synergistic changes in the differential expression of >20 pro-inflammatory mediators in human lung tissue cultures as a result of dosage with a known number and size of relevant ambient particle mimics differing chemical compositions.

Poster	Name	Title	Abstract
3	<p>MacIntyre, Elaina¹ Karr, Catherine² Demers, Paul¹ Lencar, Cornel¹ Tamburic, Lillian¹ Koehoorn, Mieke¹ Brauer, Michael¹</p> <p>¹ University of British Columbia ² University of Washington</p>	<p>Investigation of Air Pollution and Otitis Media in a Population-Based Birth Cohort</p>	<p>Otitis media is a common childhood disease and is presently the main reason children under 4 receive prescription medication in BC. Environmental tobacco smoke is an accepted risk factor but ambient air pollution has not been thoroughly investigated. We hypothesize that ambient air pollutants influence the development of otitis media through suppression of the immune system. Due to the multi-factorial nature of otitis media it is important that we adequately control for potential confounders. As part of the Border Air Quality Study we linked multiple datasets to control for potential confounders during investigation of this hypothesis in a population-based cohort.</p>
4	<p>Barn, Prabjit¹ Larson, T.² Noullett, Melanie³ Copes, Ray¹ Kennedy, Susan¹ Brauer, Michael¹</p> <p>¹University of British Columbia ²University of Washington ³University of Northern British Columbia</p>	<p>Infiltration Of Forest Fire And Residential Wood Smoke: An Intervention Study To Assess Air Cleaner Effectiveness</p>	<p>Forest fires and residential wood-burning are significant sources of fine particle (PM2.5) air pollution. As PM2.5 exposure is associated with adverse health effects, populations need to be provided with exposure reduction strategies during smoke episodes that are practical, effective, and evidence-based. Public health recommendations typically include remaining indoors and use of air cleaners, yet little information is available on the effectiveness of these measures. Specific objectives of this study were to measure indoor infiltration of outdoor PM2.5 from forest fires/residential wood smoke, to determine effectiveness of High Efficiency Particulate Air (HEPA) filter air cleaners in reducing indoor PM2.5 and to investigate determinants of infiltration and air cleaner effectiveness in homes.</p>

Poster	Name	Title	Abstract
5	<p>Nethery, Elizabeth Leckie, Sarah Marshall, Julian Brauer, Michael</p> <p>University of BC</p>	<p>Evaluation of a Land Use Regression Model to Assess Exposure to Air Pollution During Pregnancy: Use of GPS Tracking and Personal Monitoring</p>	<p>The Border Air Quality Study includes a cohort study of the relationship between exposure to traffic-based air pollutants during pregnancy and adverse birth outcomes. This cohort study estimates exposures using a land-use regression model and geo-coded home locations. To evaluate this approach, we compared measured (NO, NO₂, and black carbon) and modeled exposures for a sample of 62 pregnant, non-smoking women. For the pregnant women in this study, modeled exposure quartiles were moderately predictive of high or low measured exposures for NO. These results indicate that exposure classification of this population based land use regression models is appropriate for NO but not NO₂ or black carbon.</p>
6	<p>Setton, Eleanor Hystad, Perry Lightowlers, Christy Poplawski, Karla</p> <p>University of Victoria</p>	<p>Air Pollution and Exposure Modelling</p>	<p>As graduate students at the University of Victoria's Spatial Sciences Laboratory and members of the Border Air Quality Study (BAQS), our research activities focus on the study of air quality issues within the Georgia Basin-Puget Sound airshed. This poster introduces our particular research activities, including: spatial exposure simulation modelling, PM_{2.5} infiltration modelling, spatial modelling of woodsmoke from residential wood burning and land use regression modelling of traffic-related NO₂. The knowledge gained from our research, and from the overall BAQS project, will provide a better understanding of how to best manage air quality in this international airshed.</p>

Environmental Policy / Knowledge Translation

Poster	Name	Title	Abstract
7	<p>Peters, Cheryl University of BC</p>	<p>Environmental and social impacts of bauxite mining in Orissa, India through a Corporate Social Responsibility (CSR) lens</p>	<p>India is the fifth largest producer of aluminum ore in the world. Changes in mining regulations have allowed unprecedented foreign access to resources, notably in Orissa state. This has led to clashes between communities, government, and corporations that have sometimes become violent. This research addresses environmental and social impacts of mining on communities in Orissa, and how better application of Corporate Social Responsibility policies may have helped mitigate conflict. In particular, findings suggest that if companies had engaged in more open communication early on, they may have been able to negotiate effectively and ultimately gain access to contested ore reserves.</p>
8	<p>Elmieh, Negar¹ Dowlatabadi, Hadi¹ Casman, Elizabeth²</p> <p>¹University of BC ²Carnegie Mellon University</p>	<p>The role of lifestyle characteristics and risk perceptions in preventing West Nile virus Disease.</p>	<p>There are three measures through which a community can limit cases of West Nile virus (WNV): (1) avoidance: behavioral measures among individuals to reduce exposure to vectors, (2) deterrence: application of chemicals to deter mosquito bites, and (3) extermination: the application of pesticides to kill vectors. In order to better understand how people conceptualize WNV prevention measures, a questionnaire was designed to quantitatively estimate perceptions associated with WNV, pesticide spray campaigns using malathion, and potential alternatives (i.e. no action and use of DEET) among individuals and public health experts in four areas across Canada with varying exposure to WNV. The results of this study will be used to identify risk 'hot spots' and knowledge gaps for targeting risk communication strategies as well as to parameterize PAMSE, a Probabilistic Assessment model of Malathion Spray Exposures, for calculating malathion exposure from WNV control spraying programs.</p>

Poster	Name	Title	Abstract
9	<p>Winters, Meghan University of BC</p>	<p>The Impact of Climate on Utilitarian Bicycling: Results of a Canadian Study</p>	<p>There is rising interest in promoting utilitarian bicycling (bicycling to school, work, or for errands) for its multiple benefits to individual and environmental health, including improved fitness, decreased obesity, and reduced air and noise pollution. We investigated the impact of regional climate on bicycling patterns in Canadian cities by linking Canadian Community Health Survey data with Environment Canada and Census data, and conducting multi-level logistic modeling. We found that bicycling is associated with the regional climate in which one lives (more so for non-students than students), which can inform evidence-based transportation and environmental policy initiatives.</p>
10	<p>Nicol, Anne-Marie Hurrell, Christie University of BC</p>	<p>News coverage of emerging health hazards: Cryptococcus gattii and West Nile virus</p>	<p>The news media play an important role in raising public awareness about health risks. However, news coverage itself can transform the health messages that the public receives in a variety of ways. The press can get the facts wrong, or can be a key political site for the framing of risk issues. Another potentially problematic function of newspaper coverage is the discrepancy that can occur between the amount of press coverage about an issue and the magnitude of risk. The goal of this research was to compare the press coverage and epidemiological statistics of two emerging health hazards, Cryptococcus gattii and West Nile virus.</p>

Poster	Name	Title	Abstract
11	Giustini, Dean Wiebe, Megan University of BC	Expert searching of the grey literature: two collaborative wikis	The retrieval of grey literature in health is vital to the support of evidence-based practice. Health librarians can lead users to these hard-to-find documents, and share their search expertise with each other by participating in the building of wikis. Open access to grey literature in health presents challenges and/or opportunities: new publishing channels and search tools; a rich but scattered bibliography, and a deep hard-to-search Web.

Environmental Toxins

Poster	Name	Title	Abstract
12	<p>Muttray, Annette Vassilenko, Ekaterina Susan Baldwin</p> <p>University of BC</p>	<p>What Connects Mussels With Environmental And Human Health</p>	<p>Our research focuses on the p53 protein family pathways in the local mussel <i>Mytilus trossulus</i>. We and others found that the structure of the tumor suppressor p53 was highly conserved between vertebrates and mollusks. Mussels are commonly used in environmental monitoring programs and can be affected by a leukemia-like disease. The goal of our study is to find out whether p53 in mussels can be used as a biomarker based on correlations between leukemia and p53 expression levels and mutations. The poster will also announce an interdisciplinary workshop on the applicability of invertebrates as models for human cancers, particularly when studying potential environmental causes.</p>
13	<p>Chan, Laurie</p> <p>University of Northern BC</p>	<p>Reconstructing Historical Mercury Exposure from Beluga Whale Consumption among Inuit in the Mackenzie Delta</p>	<p>Mercury levels in biota in the Canadian Arctic appear to be increasing. Changes in mercury concentrations in animal tissues will have potentially significant effects on the people who consume these resources as part of a traditional diet. The consumption of marine mammals, such as beluga whales, is the primary source of dietary mercury intake. Beluga whales often contain high levels of mercury (Hg) in their tissues because they are slow-growing and long-lived organisms, and they are at a high trophic level. Changes in Hg concentrations in beluga can have impacts on dietary Hg exposure in people. Beluga whales were a focal resource for Inuit in the Mackenzie Delta (NWT) prior to Euroamerican contact.</p>

Poster	Name	Title	Abstract
14	<p>Elmieh, Negar¹ Dowlatabadi, Hadi¹ Casman, Elizabeth²</p> <p>¹University of BC ²Carnegie Mellon University</p>	A Probabilistic Assessment Of Malathion Spray Exposures (PAMSE) For The Prevention Of West Nile Virus	To assist public health decision-makers manage the threat of West Nile virus (WNV) in British Columbia, we developed a probabilistic model capture parametric and structural uncertainties in determinants of exposure different individuals in a community sprayed with malathion, an insecticide used to kill the adult mosquitoes that carry WNV. Probabilistic variables and distributions were defined and propagated throughout model equations to calculate probability distribution of doses received by exposure pathway and age. Results show that spraying in malathion in compliance with Canadian guidelines can still leave more than 5% of children under the age of 6 at risk of excessive exposure to malathion. This framework can be used to assess a variety of circumstances to provide quantitative insights for informed decisions in pesticide control measures to limit vector-borne diseases.
15	<p>Chan, Laurie</p> <p>University of Northern BC</p>	Development And Application Of A Biochemical Marker For Mercury In Humans	At high levels of exposure, methylmercury (MeHg) is well known to damage the visual, auditory and motor systems in both adults and children. However, due to the complexity and inaccessibility of the central nervous system (CNS), the effects of low-level exposure to MeHg are difficult to identify. MeHg is known to cause biochemical and molecular changes at concentrations well below levels that cause overt disease. Therefore, monitoring these early biochemical changes may offer a strategy to identify sub-clinical effects of MeHg in populations.

Poster	Name	Title	Abstract
16	<p>Ong, Corinne¹ Chow, Simon¹ So, Pauline¹ Piche, Renee¹ Chang, Karen¹ Leung, Amy¹ Hoang, Linda¹ Fyfe, Murray² Isaac-Renton, Judith¹</p> <p>¹University of BC ²BC Centre for Disease Control</p>	<p>Molecular Epidemiology of Two Emerging Food and Waterborne Parasitic Diseases</p>	<p><i>Objective:</i> The aim of this study was to use different molecular markers to characterize parasites isolated from outbreak-associated cases of cryptosporidiosis and cyclosporiasis for tracking disease transmission in various Canadian communities.</p> <p><i>Methods:</i> Clinical specimens collected from laboratory-diagnosed cases associated with outbreaks were analyzed using multi-locus genotyping. Molecular markers, including the small and large sub-unit ribosomal DNA (SSU and LSU rDNA), both internal transcribed spacers (ITS1 and ITS2) and the gp60 gene were amplified by PCR, sequenced and compared by multiple sequence alignment.</p> <p><i>Conclusions:</i> It was possible to differentiate between isolates from different cryptosporidiosis outbreaks based on the sequence differences of selected molecular markers.</p>
17	<p>Uhlmann, Sasha Simon Fraser University</p>	<p>Associating reportable communicable diseases with drinking water source and type: Using epidemiology and GIS mapping to improve surveillance techniques for waterborne infections in Langley, B.C.</p>	<p>We GIS mapped cases of potential waterborne illness from 1996-2005 in the Township of Langley, and determined the water source and type feeding each residence. We found that rates of illness were significantly higher for cases living on land serviced by private wells opposed to those living on land serviced by municipal drinking water. Further, rates were higher for municipal water that was a mix of surface and ground water, than the municipal water that was purely ground water.</p>

Poster	Name	Title	Abstract
18	Bartlett, Karen ¹ Kidd, Sarah ¹ Bach, Paxton ¹ Chow, Yat ¹ Kronstad, Jim ¹ MacDougall, Laura ² Galanis, Eleni ² ¹ University of British Columbia ² British Columbia Centre for Disease Control	Successful environmental colonization of the mammalian pathogen, <i>Cryptococcus gattii</i>	Investigations of the environmental colonization of <i>C. gattii</i> in British Columbia were begun in 2001 as human and veterinary cases of cryptococcosis were recognized. Since 1999 there have been over 160 reported human cases of cryptococcosis, and 6 fatalities. Documenting the environmental spread and genetic variation of <i>C. gattii</i> is useful information for clinicians and veterinarians who must be prepared for the appearance of this novel pathogen. In addition, the ability of a previously unknown organism to successfully colonize a stable ecosystem has broader implications in the modeling of potential spread of pathogenic organisms into new environments.

Epidemiology Methods

Poster	Name	Title	Abstract
19	<p>Arrandale, Victoria Koehoorn, Mieke MacNab, Ying Dimich-Ward, Helen Kennedy, Susan</p> <p>University of BC</p>	<p>Dyspnea in an occupational cohort: Evaluating two methods for analysis of longitudinal respiratory symptoms</p>	<p>Due to the complexities of analyzing repeated binary outcomes, changes in respiratory symptoms over time are rarely studied; we evaluated two statistical methods for this purpose. Discrete mixture models (SAS Proc Traj) were used to evaluate patterns of dyspnea change within subgroups. Generalized linear mixed models (SAS Proc Glimmix) were used to evaluate risk factors for dyspnea. Data from a cohort of marine workers was utilized. Proc Traj results suggest that there were two patterns of dyspnea change over time; one a constant low risk, the second a steadily increasing risk. After adjusting for lung function in Proc Glimmix models, being female was a significant risk factor, suggesting that women are more likely to report dyspnea irrespective of lung function. Both Proc Traj and Proc Glimmix can be applied to answer different research questions relating to respiratory symptoms over time.</p>
20	<p>Trask, Catherine</p> <p>University of BC</p>	<p>Direct recruitment of workers and worksites in heavy industry for occupational field studies</p>	<p>Typically, field-based occupational exposure and health assessment studies recruit workers via their employers. This method favours studies of one or a few larger companies, leaving small worksites unstudied. In a study of back injury risk factors in heavy industry (forestry, wood products, warehousing, transportation, construction), workers were recruited directly using a random sample of workers registered with the Workers' Compensation Board of BC, after which their employers were contacted for permission to enter the worksite. We describe the recruitment method and resulting participation rates, as well as its advantages, challenges, and strategies to overcome the challenges. Of 68 eligible workers, 57 (84%) agreed to participate, ranging from 74% to 100% in each industry. These 57 workers had 55 different employers, 74% of which gave permission, ranging from 64% to 100% between the industries.</p>

Occupational / Environmental Hygiene Methods

Poster	Name	Title	Abstract
21	Johnson, John ¹ Copes, Ray ² Morley, David ² Phillips, Brian ² ¹ IDIAS ² BC Centre for Disease Control	Does radon present a health risk to BC workers?	This WorkSafeBC-funded research investigates the health risk from radon, a naturally occurring radioactive gas, in selected BC workplaces. It focuses on characterizing sources of entry and levels within a selection of workplaces and industries in British Columbia. Assessments of worker exposure, the doses received by organs and tissues, and estimates of the health risk will be derived. Workplaces with the potential for high radon concentration have been identified and contacted to participate having passive radon monitors (PRM's) installed. Those agreeing will be visited and PRM's installed. The poster will describe radon monitoring with PRM's and the risk from radon exposure.
22	Chan, Laurie University of Northern BC	Dietary Exposure To Perfluorinated Compounds In Nunavut	Perfluorinated compounds (PFCs) used in such applications as cosmetics, fire fighting foams, and water and grease repellent coatings for fabrics and food packaging, can bioaccumulate and bioconcentrate in aquatic ecosystems and have been found in the Arctic. The objective of this study is to estimate the dietary exposure to PFCs in Nunavut based on the analysis of archived traditional food samples collected in Nunavut between 1997 and 1999. A newly developed solid phase extraction (SPE) method combined with liquid chromatograph-tandem mass spectrometry was used for the extraction and analysis of perfluorooctane sulfonate, perfluorinated carboxylates (C7-C13) and fluorotelomer unsaturated carboxylic acids.

Poster	Name	Title	Abstract
23	Chu, Winnie ¹ Ma, Timothy ¹ Barnjak, Tom ¹ Reveley, Summer ¹ Hon, Chun-Yip ² Astrakianakis, George ³ Danyluk, Quinn ⁴ Chua, Prescilla ⁴ ¹ Vancouver Coastal Health ² University of British Columbia ³ Occupational Health and Safety Agency for Healthcare ⁴ Fraser Health	Cytotoxic drug exposure in British Columbia hospitals	Medical ailments including cancer are treated daily in BC hospitals using cytotoxic drugs. Healthcare workers and the public are regularly exposed to these mutagens and carcinogens. UBC's School of Occupational & Environmental Hygiene has partnered with the Fraser and Vancouver Coastal Health Authorities and OHSAH to establish proper sampling and analytical protocols for assessing cytotoxic drug exposure. Wipe tests and LC/MS/MS analysis (detection limit=5 µg/L) of samples from BC hospital sites revealed amounts of methotrexate and cyclophosphamide as great as 79.5 pg/cm ² . Trace amounts (4.2 pg/cm ²) were also found in administration areas. These sampling and analytical protocols will form the basis of all future decontamination protocols.
24	Maal-Bared, Rasha Bartlett, Karen University of BC	The distribution of pathogenic bacteria on different surface types in agricultural watersheds: can we monitor biofilms to save lives?	Monitoring water quality is an essential component of safe drinking water delivery. However, current microbial evaluation techniques are not dependable. This research evaluates the potential for improving microbial water quality monitoring and outbreak prediction by using attached bacterial communities (biofilms) in source water. To do so, the presence of indicator organisms and pathogens was evaluated in water, as well as on a variety of surfaces in Elk Creek (British Columbia). The results showed that water column grab samples, especially during the dry season, are not representative of the indicator organisms and pathogens in the watershed that could reach consumers.

Poster	Name	Title	Abstract
25	<p>Williamson, Jill</p> <p>BC Centre for Disease Control</p>	<p>Genome Wide Analysis of Single Nucleotide Polymorphisms in <i>Cryptosporidium hominis</i> organisms: Investigating the Association between Geography and Genetic Diversity.</p>	<p><i>Cryptosporidium hominis</i> has recently emerged as a pathogenic parasite posing a significant health threat to humans. Having delineated from the closely related <i>Cryptosporidium parvum</i> yet evolving into its own unique model of pathogenesis, particularly in regards to its modes of transmission, has mandated a need for clarifying the degree and stability of genetic divergence between the two species. For the molecular epidemiology and range of transmission of <i>C. hominis</i> and <i>C. parvum</i> to become clearer it is imperative that interspecies and intraspecies genetic differentiation is resolved. Genetic polymorphisms in functionally or evolutionary relevant proteins could identify strain specific markers that may be related to epidemiologically important phenotypes.</p>

Occupational Hygiene Methods

Poster	Name	Title	Abstract
26	Hon, Chun-Yip ¹ Danyluk, Quinn ² ¹ Vancouver Coastal Health ² Fraser Health	Methods for Estimating Airborne Exposure to Healthcare Staff due to Cleaning of Various Spilled Organic Products	There are four methods for determining the resulting concentration level from a spilled chemical: 1) assume worst-case exposure, 2) measure the exposure level at the time of the spill, 3) calculating exposure levels <i>a priori</i> using mathematical exposure models, or 4) conduct simulated spills and measuring the resulting airborne concentration levels. In order to construct an effective spill control program, one must be familiar with each of these four methods and their application. Our discussion will focus on the advantages and limitations of each of these four methods from a practical industrial hygiene perspective.
27	Hon, Chun-Yip ¹ Danyluk, Quinn ² ¹ Vancouver Coastal Health ² Fraser Health	Evaluation of the Accuracy of Select Mathematical Models to Predict Airborne Concentrations from Small Indoor Spills	One method of establishing exposure levels resulting from a chemical spill is to use mathematical exposure models. However, the applicability of these models to conditions of interest is uncertain, as the predicted results have not been validated with those values obtained from real-time exposure monitoring of a spill. The objectives of our study were to: 1) evaluate the accuracy of selected models at estimating the generation rate of vapours resulting from simulated spills and 2) evaluate the accuracy of selected dispersion models at estimating the potential exposures to staff resulting from varying spill sizes of chemicals over time.

Occupational Safety / Injury

Poster	Name	Title	Abstract
28	<p>Hackett, Georgina Back, Chris Craib, Kevin Cvitkovich, Yuri Yassi, Annalee</p> <p>Occupational Health and Safety Agency for Healthcare</p>	<p>Improving the Health and Safety of Community Health Workers</p>	<p>In 2000, the Occupational Health and Safety Agency for Healthcare (OHSAH) in BC collaborated with a bipartite committee to develop interventions (education and training; a risk assessment tool (RAT); and a mechanical lift equipment registry) aimed at reducing workplace injuries among Community Health Workers (CHWs). Five agencies adopted the interventions to evaluate their effectiveness. Results demonstrated that education and training, and use of the RAT, appeared to be associated with increased injury reporting while effectively reducing the number of CHW time-loss injuries. Results showed that enhanced CHW perception of health, safety, and job satisfaction, could have a protective effect in reducing injuries and claims.</p>
29	<p>Kling, Raketl¹ Sidebottom, Claire² Milord, Rebecca^{1,3} Morrison, Janet⁴ Corbière, Marc¹ Craib, Kevin² Kidd, Catherine⁵ Long, Victoria⁵ Saunders, Sharon^{2,6} Yassi, Annalee^{1,2}</p> <p>¹University of BC ²Occupational Health and Safety Agency for Healthcare ³Centre for Aging and Health, Providence Health Care ⁴British Columbia Institute of Technology ⁵Vancouver Coastal Health ⁶British Columbia Nurses Union</p>	<p>Patient Factors Associated with Violence or Aggression in an Acute Care Hospital</p>	<p>The purpose of this study was to confirm factors currently used to predict the potential for patient violence or aggression in a large acute care hospital. A retrospective case-control methodology was used in this study. The patient variables that were significantly associated with patient violence or aggression were found to be: being a male patient, being younger, having a longer stay in the hospital and being diagnosed with a psychiatric illness or a mental disorder. Health care employers should incorporate this information into violence prevention methods and training to reduce this risk of violence to health care workers.</p>

Poster	Name	Title	Abstract
30	<p>Dai, Sulan University of Victoria</p>	<p>Coastal Communities not out of the Woods: Occupational Health in British Columbia's Forest Sector</p>	<p>Communities on British Columbia (BC)'s coast are traditionally based on resource industries, such as fisheries, forestry and mining. For a long time, the BC forest industry has been infamous for its poor safety record. In 2005, 49 deaths occurred in the forest industry. Between 1993 and 2002, as many as 250 forestry workers died in BC. An annual average of 25 fatalities and 92 serious injuries make BC's forest industry the most dangerous in North America. The majority of deaths and serious injuries are occurring in small operations on the coast. Numerous studies have been conducted to try and improve the safety of BC's forest sector, including a Forest Safety Task Force report which was released in 2004. The impact of forestry workers' deaths is devastating on their family and co-workers, while workers suffering from serious injury receive inadequate attention. It is an over-riding priority to significantly reduce and eventually eliminate the unacceptably high rates of deaths and serious injuries in BC's forest sector. There is also a real need to provide adequate health services and social support to injured workers.</p>
31	<p>Horn, Charles University of Victoria</p>	<p>Working Safe: Injury prevention programs in Aboriginal enterprises</p>	<p>The poster presentation will summarize a current research project concerned with injury prevention programs in small to medium Aboriginal business enterprises in British Columbia. The project has two principle aims: 1) to generate knowledge about the implementation and utilization of HSE programs in Aboriginal enterprises; and 2) based on the findings, to recommend strategies and procedures to support safe work environments in Aboriginal enterprises. The presentation summarizes the project goals, methodologies, and dissemination of the research results.</p>

Mental Health / Work Environment / Stress

Poster	Name	Title	Abstract
32	Daines, Donna ¹ Cash, Penny ² von Tettenborn, Linda ³ Doyle, Rose ⁴ Philippe-Welton, Carmen ⁵ Parkes, Maureen ⁶ ¹ Thompson Rivers University ² University of BC, Okanagan ³ Douglas College ⁴ Kwantlen College ⁵ North Island College ⁶ Langara College	Developing and Evaluating a Tool to Examine Quality Workplace Environments for Nursing Faculty in Schools of Nursing in British Columbia	This project will explore the impact of workplace environment elements on nursing faculty employment, and make recommendations for policy development and strategic planning activities to enhance recruitment and retention. The project is designed in two phases. First, finalizing development of a survey tool based on a Quality Practice Environments document prepared by the College of Registered Nurses of British Columbia, using faculty focus groups. Second, piloting the revised survey tool to determine validity. The study will inform an understanding of the complexity of the nursing education workplace environment, nationally & internationally, in a time of global nursing shortages.
33	Gilbert, Merv ¹ Samra, Joti ² Bilsker, Dan ³ ¹ Gilbert Acton ² Simon Fraser University ³ University of BC	Antidepressant Skills in the Workplace: Dealing with Mood Problems at Work	An existing depression self-management manual was adapted for the workplace, providing a cost-effective and evidence based tool to address mood problems at work. In this manual, titled Antidepressant Skills in the Workplace, strategies derived from a cognitive behavioural model are taught in the context of workplace issues: both work stresses contributing to depression and impact of depressive symptomatology upon work function. The manual was adapted through: 1. a series of focus groups involving a full range of stakeholders in workplace mental health; and 2. trial dissemination via several employee and family assistance programs.

Poster	Name	Title	Abstract
34	<p>Samra, Joti Coleridge, Peter Goldner, Elliot Milne, Kate</p> <p>Simon Fraser University</p>	<p>A Comprehensive Framework For Workplace Mental Health & Addiction: Practical & Research Implications</p>	<p>Purpose: To develop a comprehensive framework - across level of prevention and by stakeholder group - for conceptualizing workplace mental health and addiction issues, for the purpose of guiding research and practice initiatives. Importance Of The Problem: A review of the literature was conducted to identify existing research and/or applied frameworks in the area of workplace mental health and addiction. A comprehensive framework was not identified in the existing empirical or gray literature. The dearth of an existing framework is notable, as a comprehensive framework can be of tremendous value in guiding both research and practice initiatives in an integrated fashion.</p>
35	<p>Davies, Hugh</p> <p>University of BC</p>	<p>Noise, Stress and Cardiovascular Disease – A Research Program</p>	<p>Exposure to noise has been identified as probable causal agent for cardiovascular disease (CVD), one of the leading causes of death in Canada, likely via a pathogenic stress response. We have a new research program investigating this intriguing relationship. Following studies that characterized mortality and morbidity risk, we are now re-examining the data to look at issues of temporality, predisposition to disease, and “joint-effects” of simultaneous stress exposures. We are proposing studies to examine the role of noise in development of hypertension, and to examine the joint effects of noise and air pollution on CVD in the community. We collaborate with the Border Air Quality Study, the European RANCH project, and the SOEH Firefighters’ Heart Disease study.</p>

