

# A New Way Forward: Navigating a Path for Local Epidemiology

**November 25 to 27, 2018**

Crowne Plaza  
Niagara Falls, ON





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# Welcome!

The conference objectives are to provide an opportunity for public health professionals to:

- Share implementation and operationalization strategies for the new Ontario Public Health Standards
- Discuss the role of the epidemiologist for evidence-informed decision-making in the local context
- Explore tools and methods for assessing health inequities and identifying priority populations
- Network with colleagues and strengthen connections

## What's next for APHEO? Your Voice Matters

### Membership Consultation Opportunity - Monday November 26, 3:00 PM

#### Facilitator: Susan Tremblay, Consultant, Management Advisory Service

The 2018 Executive Committee initiated a process to seek feedback from the membership on what the new APHEO mission means to them, how it may impact the future direction of the Association, including who can participate in its governance and how it is governed in the future.

This facilitated session represents the final step of the consultation process, after which recommendations for action will be made to the 2019 Executive Committee.

Participants will have the opportunity to participate in a constructive and collaborative discussion on options to embody APHEO's new mission and to assess their merits. In addition, key strategies will be discussed to ensure that APHEO preserves its local public health focus. The 2018 Executive Committee looks forward to your participation.

#### 2018 Conference Planning Committee

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**Chair:** Mackenzie Slifierz, City of Hamilton Public Health Services

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**Planning Committee Members:** Lydia Cheng, Peel Public Health • Tim Chisamore, Niagara Region Public Health • Jessica Deming, Region of Waterloo Public Health and Emergency Services • Stanley Ing, Chatham-Kent Public Health • Po-Po Lam, Peel Public Health • James Macintosh, City of Hamilton Public Health Services • Kelsie Near, Toronto Public Health • Saamir Pasha, Windsor-Essex County Health Unit

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**Planning Services Provided by:** Chuck Schouwerwou, ConferSense Planners Inc.

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#### 2018 Executive Committee

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<b>President</b>	Vidya Sunil, Haliburton, Kawartha, Pine Ridge District Health Unit
<b>Vice-President</b>	Jessica Deming, Region of Waterloo Public Health and Emergency Services
<b>Secretary</b>	Erica Clark, Huron County Health Unit
<b>Treasurer</b>	Stanley Ing, Chatham-Kent Public Health
<b>alpha Representative</b>	Emma Tucker, Halton Region Public Health
<b>OPHA Representative</b>	Suzanne De Haney, Eastern Ontario Health Unit
<b>Member at Large</b>	Lydia Cheng, Peel Public Health
<b>Past-President</b>	James Macintosh, City of Hamilton Public Health Services

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### Crowne Plaza Information

#### Conference Wireless

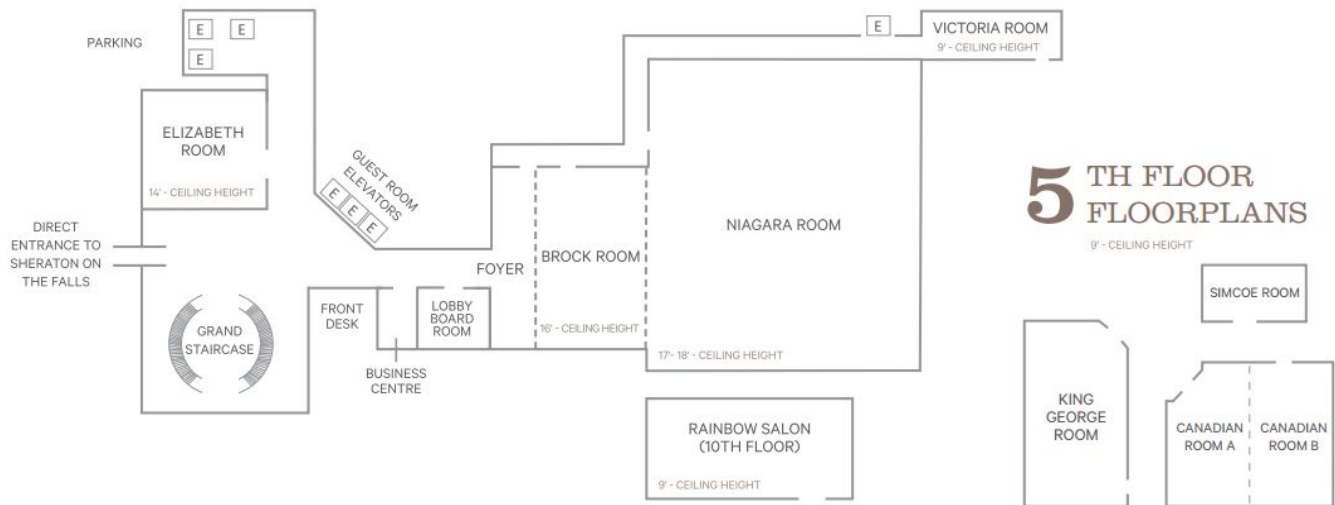
Group: APHEO  
Username: apheo  
Password: Conference

#### Breakfast

At the Crowne Plaza, breakfast can be purchased at:

- Starbucks Cafe - Lower Lobby
- Rainbow Room - 10th Floor

### Hotel Map:





# Conference Agenda

## Sunday November 25, 2018

Time	Event	Location
1:00 - 7:00 PM	<b>Registration</b>	Brock Room
5:00 - 7:00 PM	<b>Opening reception</b> Light refreshments will be provided and a cash bar will be available.	Rainbow Salon

## Monday November 26, 2018

Time	Event	Location
8:00 AM	<b>Registration and networking</b> (Note: breakfast not provided)	Brock Room
8:45 AM	<b>Opening remarks</b>	Niagara Room
9:00 AM	<b>Keynote presentation:</b> Dr. David Williams; Local public health epidemiology: Foundations for an evolving provincial health system	Niagara Room
9:30 AM	<b>Expert panel discussion:</b> National Collaborating Centre for Methods and Tools; Introduction to evidence-informed decision making in public health	Niagara Room
10:45 AM	<b>Break</b>	Brock Room
11:00 AM	<b>Concurrent sessions 1, 2, 3</b>	(See table on pg. 5)
11:30 AM	<b>Concurrent sessions 4, 5, 6</b>	(See table on pg. 5)
12:00 PM	<b>Lunch</b>	Brock Room and Niagara Room
1:00 PM	<b>Terry Delmore Award of Excellence presentation</b> <b>Elaine Hector Student Award presentation:</b> Jennifer Liang; Trends in calls to paramedics for suspected opioid overdoses in Toronto	Niagara Room
1:30 PM	<b>Workshops A, B</b>	(See table on pg. 5)
2:45 PM	<b>Break</b>	Brock Room
3:00 PM	<b>What's next for APHEO? Your voice matters:</b> A facilitated consultation session of the APHEO membership	Niagara Room
4:00 PM	<b>Free time</b>	
5:30 PM	<b>Bowling and arcade social event</b> Dinner will be provided and a cash bar will be available.	Strike Rock N' Bowl, 4960 Clifton Hill, Niagara Falls

**Monday Concurrent Sessions and Workshops:**

Time	Niagara Room	Elizabeth Room	Canadian A/B Room
11:00 - 11:30 AM	<b>1:</b> Indicator dashboard development using Power BI	<b>2:</b> Racial/ethnic variations in maternal pre-pregnancy weight and gestational weight gain and their impact on fetal overgrowth in Ontario	<b>3:</b> A changing climate: Assessing health impacts and vulnerabilities due to climate change within Simcoe Muskoka
11:30 AM - 12:00 PM	<b>4:</b> Data and analytics at Niagara Region Public Health (NRPH): A new beginning?	<b>5:</b> The Healthy Growth Initiative	<b>6:</b> Indoor radon levels of Windsor-Essex County households 2016 to 2018
1:30 - 2:45 PM	<b>Workshop A:</b> Using a toolkit to measure health inequalities in Canada	<b>Workshop B:</b> Introduction to evidence-informed decision making	

**Tuesday November 27, 2018**

Time	Event	Location
8:00 AM	<b>Registration and networking</b> (Note: breakfast not provided)	Brock Room
8:45 AM	<b>Opening remarks</b>	Niagara Room
9:00 AM	<b>Keynote presentation:</b> Dr. Laura Rosella; Population health analytics in action: Data and tools for assessing health inequities and population health priorities	Niagara Room
9:45 AM	<b>Keynote presentation:</b> Dr. Flora Matheson and Trevor van Ingen; Monitoring health inequities: Ontario Marginalization Index updates and products	Niagara Room
10:30 AM	<b>Rapid poster presentations</b>	Niagara Room
10:45 AM	<b>Break</b>	Brock Room
11:00 AM	<b>Workshop C</b>	<b>Concurrent sessions 7, 8</b>
11:30 AM		<b>Concurrent sessions 9, 10</b>
12:00 PM	<b>Lunch</b>	Brock Room and Niagara Room
1:00 PM	<b>Workshop D</b>	<b>Concurrent sessions 11, 12</b>
1:30 PM		<b>Concurrent sessions 13, 14</b>
2:00 - 3:00 PM	<b>Annual General Meeting</b> <ul style="list-style-type: none"> <li>Core Indicators project 20th birthday celebration with cake</li> <li>Announcement of the 2019 APHEO Executive Committee</li> </ul>	Niagara Room

**Tuesday Concurrent Sessions and Workshops:**

Time	Niagara Room	Elizabeth Room	Canadian A/B Room
11:00 - 11:30 AM	<b>Workshop C:</b> The Importance of Data in Quality Improvement Projects (Note: two offerings of an identical session)	<b>7:</b> Surveillance of the deaths of people experiencing homelessness in Toronto	<b>8:</b> Estimating population benefits using a risk tool: An example of high resource users in Ontario
11:30 AM - 12:00 PM		<b>9:</b> Meaningful engagement: Relationship building with First Nations and public health In Ontario	<b>10:</b> Using an evidence-informed approach to improve chlamydia rates in Niagara
1:00 - 1:30 PM	<b>Workshop D:</b> The Importance of Data in Quality Improvement Projects (Note: two offerings of an identical session)	<b>11:</b> City of Hamilton Health Check: A standardized process for assessing the local burden of disease and identifying priority health outcomes	<b>12:</b> Monitoring cannabis use and harms in Ontario: Identifying potential indicators
1:30 - 2:00 PM		<b>13:</b> Strengthening a population health approach for health system planning	<b>14:</b> Youth drinking and policy: Evaluating the impact of Ontario alcohol policy change on the alcohol use behaviours of adolescents

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DLSPH is leading a training collaborative supported by an Ontario Ministry of Health and Long-Term Care Health and Well-Being grant to support Ontario's public health workforce to develop skills in health equity, population health assessment and effective public health practice.



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# Keynote Presentations

## **Mon 9:00 – 9:30 AM** Local public health epidemiology: Foundations for an evolving provincial health system

### **Speaker:**

Dr. David Williams, Chief Medical Officer of Health, Ontario Ministry of Health and Long-Term Care

As the Chief Medical Officer of Health, Dr. Williams has oversight of the public health system in Ontario. In his two most recent annual reports, *Mapping Wellness: Ontario's Route to Healthier Communities* and *Improving the Odds: Championing Health Equity in Ontario*, he emphasized the importance of local population health data as foundational for efforts to improve the health of Ontarians. Dr. Williams will speak about system-level actions planned or underway that fulfill the recommendations from his annual reports, as well as his vision for the future role of public health epidemiology practiced at the local level, within the broader scope of the evolving health system.

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## **Mon 9:30 – 10:45 AM** Introduction to evidence-informed decision making in public health

**Speaker:** Dr. Maureen Dobbins, Scientific Director, National Collaborating Centre for Methods and Tools

### **Panelists:**

John Barbaro, Simcoe Muskoka District Health Unit

Katherine Russell, Ottawa Public Health

Po-Po Lam, Peel Public Health

The National Collaborating Centre for Methods and Tools provides leadership and expertise in evidence-informed decision making (EIDM) to Canadian public health organizations. We believe that using the best available evidence to inform public health practice and policy will strengthen and improve the public health system, ultimately leading to better health for all Canadians. This session provides an overview of evidence-informed public health (EIPH) and the EIDM process. A panel presentation and discussion will explore the insights and experiences of finding and using evidence from an epidemiologist's perspective.

### **Objectives:**

- To provide an introductory overview of evidence-informed public health
- To discuss the experiences of using evidence-informed decision making from an epidemiologist's perspective

**Tue 9:00 – 9:45 AM Population health analytics in action: Data and tools for assessing health inequities and population health priorities****Speaker:**

Dr. Laura Rosella, Associate Professor, Dalla Lana School of Public Health, University of Toronto

The presentation will cover recent work from the Population Health Analytics Laboratory that draws from linked demographic, clinical, behavioural, social, and health outcomes information. From these sources, we gain a comprehensive perspective on population health, allowing us to inform decision-making related to improved public health and health system performance, reduced inequities, and health system sustainability.

This session will demonstrate examples of population health data analysis in Ontario that can be used to public health and health system action, including the Ontario Mortality Atlas and other studies from the Ontario Population Trends in Improved Mortality: Informing Sustainability and Equity of the health care system (OPTIMISE) study.

**Objectives:**

1. To review key trends in population health outcomes and health equity in Ontario
  2. To discuss the ways that diverse population-based data sources can be used to monitor health inequities and inform health system decision-making
  3. To demonstrate how population health monitoring and measurement is the foundation for a strong and robust health system
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**Tue 9:45 – 10:30 AM Monitoring health inequities: Ontario Marginalization Index updates and products****Speakers:**

Trevor van Ingen, Epidemiologist Lead, Public Health Ontario

Dr. Flora Matheson, Scientist, Centre for Research on Inner City Health, St. Michael's Hospital

The Centre for Urban Health Solutions at St. Michael's Hospital and Public Health Ontario (PHO) have updated the Ontario Marginalization Index (ON-Marg). ON-Marg is a widely used tool for measuring neighbourhood-level marginalization, and this update allows for more recent and robust reporting of trends in population health inequities.

This presentation will discuss how the ON-Marg has been updated and validated, as well as examine its potential uses and impact on public health practice in Ontario. Additionally, a demonstration of PHO's new interactive tools will showcase how ON-Marg can be used to measure health inequities in Ontario.

**Objectives:**

By the end of this session, participants will be able to:

- Describe how the Ontario Marginalization Index was updated and validated
- Explain why the development of a tool such as the Ontario Marginalization Index is important to the practice of public health in Ontario
- Learn about PHO's interactive products, to explore marginalization and health inequities in Ontario



# Award Presentations

**Mon 1:00 – 1:30 PM**

## The Terry Delmore Award of Excellence

**About Terry Delmore:** Terry Delmore was one of the first public health epidemiologists in Ontario. He began his career in 1987 at Niagara Region Health Department and finished in Halton Region in 2003. Terry was a founding member of APHEO, and APHEO president in 2001. He was the recipient of the alPHa Distinguished Service Award in 2003 in recognition of his years of dedicated service in the public health field. Terry was highly respected in the field, a mentor to many novice epidemiologists across the province, someone who gave freely of his time to help others. Terry died in 2010 following a lengthy battle with cancer.

**Purpose of the award:** The Terry Delmore Award of Excellence, named so to honour his professional achievements and legacy, was created by the APHEO Executive Committee and awarded to its first recipient in 2004. The purpose of the Award is to recognize outstanding contributions in the advancement and/or promotion of the discipline and professional practice of public health epidemiology in Ontario.

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## The Elaine Hector Student Award

**Purpose of the award:** APHEO recognizes and celebrates students engaged in applied public health epidemiology, who help to shape the future of public health in Ontario. The Elaine Hector Student Award recognizes the best student abstract at the APHEO conference.

**Award recipient and presenter:**

Jennifer Liang, Toronto Public Health / Dalla Lana School of Public Health, University of Toronto

**Presentation title: Trends in calls to paramedics for suspected opioid overdoses in Toronto**

**Additional authors:** Kandace Ryckman, Toronto Public Health; Chris Olynyk, Toronto Paramedic Services; Adam Thurston, Toronto Paramedic Services; Russell MacDonald, Toronto Paramedic Services

**Abstract:** A novel collaboration between Toronto Paramedic Services (TPaS) and Toronto Public Health allows for real-time monitoring of calls to paramedics for suspected opioid overdoses by using electronic patient care records completed by TPaS. Trends in the first year of data collection include an increase in calls during summer months and during social assistance payment periods. Preliminary geographic trends indicate a strong concentration of non-fatal calls in the downtown core and more evenly distributed fatal calls across the city. Examining trends in calls to paramedics can influence planning harm reduction services and targeting overdose prevention outreach during high-risk periods and for high-risk areas.



# Concurrent Sessions

## **Session 1** Indicator dashboard development using Power BI

**Date and location:** Mon Nov 26, 11:00-11:30 am, Niagara Room

**Presenter:** Crystal Palleschi, Lambton Public Health

**Abstract:** Objective: To develop interactive dashboards with program and population health indicators for each public health program.

Approach: The epidemiologist led teams through a brainstorming process to identify priority indicators. Power BI was used to create indicator dashboards for each program.

Results: Dashboards are being used to support a new Integrated Planning cycle. This presentation will highlight the School Health dashboard which brings together data from multiple programs.

Significance: Epidemiologists can support evidence-informed decision making by packaging program and population health data in one place and presenting it in a way that is visually appealing and easy to understand.

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## **Session 2** Racial/ethnic variations in maternal pre-pregnancy weight and gestational weight gain and their impact on fetal overgrowth in Ontario

**Date and location:** Mon Nov 26, 11:00-11:30 am, Elizabeth Room

**Presenter:** Yanfang Guo, Better Outcomes Registry and Network (BORN) Ontario

**Additional authors:** Qun Miao, BORN Ontario; Tianhua Huang, North York General Hospital; Deshayne Fell, School of Epidemiology and Public Health, University of Ottawa; Shi Wu Wen, Ottawa Hospital Research Institute; Mark Walker, Department of Obstetrics and Gynecology, University of Ottawa Faculty of Medicine; Laura Gaudet, Department of Obstetrics and Gynecology, University of Ottawa Faculty of Medicine

**Abstract:** Racial/ethnic variations in pre-pregnancy weight and gestational weight gain (GWG) were observed among women who had prenatal screening and a singleton birth in Ontario. Asian women were more likely to have inadequate GWG and Caucasian women were more likely to have excessive GWG. High pre-pregnancy weight and excessive GWG accounted for a high proportion of large for gestational age (LGA) neonates in all racial/ethnic groups and the effects varied by race. Excessive GWG contributed more to LGA than pre-pregnancy BMI in White and Asian women, and pre-pregnancy overweight and obesity contributed more than excessive GWG to LGA in Black women.



### **Session 3** A changing climate: Assessing health impacts and vulnerabilities due to climate change within Simcoe Muskoka

**Date and location:** Mon Nov 26, 11:00-11:30 am, Canadian A/B Room

**Presenter:** Ainslie Butler, Simcoe Muskoka District Health Unit

**Additional authors:** Morgan Levison and Steve Rebellato, Simcoe Muskoka District Health Unit

**Abstract:** In 2017, the SMDHU completed a climate change vulnerability assessment to identify health outcomes; determine vulnerable populations; and identify actions for mitigation of climate change-associated adverse health outcomes. The assessment provides information on projected climate change impacts based on exposure, sensitivity, and adaptive capacity. Health impacts were explored across six climate-sensitive categories: temperature extremes; extreme weather events; air quality; contamination of food and water; vector-borne disease; and exposure to ultraviolet radiation. This presentation will outline the role of epidemiologists in supporting the development of the SMDHU climate change and health vulnerability assessment.

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### **Session 4** Data and analytics in at Niagara Region Public Health (NRPH): A new beginning?

**Date and location:** Mon Nov 26, 11:30 am-12:00 pm, Niagara Room

**Presenter:** Sinéad McElhone, Niagara Region Public Health

**Abstract:** There are many unique challenges to applying modern data analytics techniques within Public Health Departments. With the growth of health related digital data (e.g. structured/unstructured data from EHRs, Google Analytics, Geospatial data) as well as the continuation of obtaining data from traditional sources (e.g. survey data such as CCHS and RRFSS, Statcan data); Epidemiologists and Analysts are grappling with the diversity of data now available, the governance associated with these new and traditional data sources and how to transform these data into usable insights to support decision making to improve the health of local populations.

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### **Session 5** The Healthy Growth Initiative

**Date and location:** Mon Nov 26, 11:30 am-12:00 pm, Elizabeth Room

**Presenter:** Gillian Alton, Better Outcomes Registry and Network (BORN) Ontario

**Abstract:** The Healthy Growth Initiative (HGI) is a provincial surveillance system to obtain accurate and timely information on growth (height and weight) and behavioural risk and protective factors for Ontario children and youth from birth to 18 years of age. The HGI utilizes data from electronic medical records of primary care providers. Preliminary analyses from the HGI will be presented, along with an exploration and discussion of data reporting needs of public health units to assist with data reporting requirements associated with the healthy growth and development standard in the new Ontario Public Health Standards.

**Session 6 Indoor radon levels of Windsor-Essex County households 2016 to 2018**

**Date and location:** Mon Nov 26, 11:30 am-12:00 pm, Canadian A/B Room

**Presenter:** Saamir Pasha, Windsor Essex County Health Unit

**Additional authors:** Mathew Roy and Karen Lukic, Windsor Essex County Health Unit

**Abstract:** Radon is a naturally occurring odourless and colorless gas posing health risks with high indoor concentrations. Windsor-Essex County Health Unit conducted a study to determine radon levels in homes across Windsor-Essex County, in the winters of 2016 and 2017. Almost 11% of eligible homes participating in the study had radon levels greater than the Health Canada radon guideline of 200 becquerels per cubic meter (Bq/m<sup>3</sup>). The Windsor-Essex County average concentration was 91.6 Bq/m<sup>3</sup>. House characteristics such as year of original construction and number of levels in the house influenced the amount of radon accumulating indoors.

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**Session 7 Surveillance of the deaths of people experiencing homelessness in Toronto**

**Date and location:** Tue Nov 27, 11:00-11:30 am, Elizabeth Room

**Presenter:** Janet Heng, Toronto Public Health

**Additional authors:** Simon Hanukov, Joyce Bernstein and Shusmita Rahman, Toronto Public Health

**Abstract:** Toronto Public Health has designed and is managing a system for recording deaths among people experiencing homelessness. The purpose is to learn more about the health needs of this most vulnerable population. The system relies on the reporting of more than 200 agencies and programs working with homeless people throughout Toronto. Reports are submitted through a secure online survey-tool, and include known demographics of the deceased, and various facts surrounding the death. All data are sent to the Office of the Chief Coroner of Ontario for validation.

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**Session 8 Estimating population benefits using a risk tool: An example of high resource users in Ontario**

**Date and location:** Tue Nov 27, 11:00-11:30 am, Canadian A/B Room

**Presenter:** Meghan O'Neill, Population Health Analytics Lab, University of Toronto

**Additional authors:** Kathy Kornas and Laura Rosella, University of Toronto

**Abstract:** A large proportion of health care spending is incurred by a small segment of the population; however, little is known about how interventions targeted at preventing high resource users (HRU) impacts resource spending at the population level. We applied a population-based risk tool for predicting HRU in Ontario, Canada to estimate 5-year HRU risk among adults in the 2013/2014 Canadian Community Health Survey. We modelled the potential effectiveness of three different HRU prevention strategies over a 5-year period. The largest reduction in HRU burden was achieved by a population-wide strategy, compared to a targeted, high-risk approach.



## **Session 9** Meaningful engagement: Relationship building with First Nations and public health In Ontario

**Date and location:** Tue Nov 27, 11:30 am-12:00 pm, Elizabeth Room

**Presenters:** Alanna Leffley, Grey Bruce Health Unit and Maurice Switzer, Nimkii Communications

**Additional authors:** Kim Lalonde, Nipissing First Nation; Mariette Sutherland, Public Health Sudbury and Districts

**Abstract:** The 2018 OPHS requires boards of health to engage with Indigenous communities, organizations and First Nations. Currently, little formal guidance is available concerning how to do so effectively. For this LDCP project, PHUs were surveyed to explore their perspectives on engagement with First Nations as well as perceived successes and challenges. Results identified specific engagement practices, facilitators, challenges, and additional supports needed for future engagement. There is interest amongst PHUs to collaborate as effective partners but there is a lack of resources, direction and knowledge - including access to statistical data, in order to be effective in this regard.

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## **Session 10** Using an evidence-informed approach to improve chlamydia rates in Niagara

**Date and location:** Tue Nov 27, 11:30 am-12:00 pm, Canadian A/B Room

**Presenters:** Rachel Skellet and Sandy Dupuis, Niagara Region Public Health

**Abstract:** Epidemiologists at Niagara Region Public Health have analyzed data to identify the top 10 health issues in Niagara through a life course approach. As a continuation of this analysis, chlamydia has been identified as the top reportable disease for residents aged 20-29. With males seeking out testing less often than females, an EIPH process was followed to understand what effective community interventions could be used to improve testing rates. Five recommendations have been summarized from the literature and are currently being assessed for applicability in Niagara.

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## **Session 11** City of Hamilton Health Check: A standardized process for assessing the local burden of disease and identifying priority health outcomes

**Date and location:** Tue Nov 27, 1:00-1:30 pm, Elizabeth Room

**Presenter:** Katrice Carson, City of Hamilton Public Health Services

**Additional authors:** Mackenzie Slifierz, Jessica Liu and Elisa Berg, City of Hamilton Public Health Services

**Abstract:** The objective of the City of Hamilton Health Check (HHC) assessment was to apply a consistent and standardized approach to quantifying and prioritizing the burden of disease for Hamilton. Using a rational approach to priority setting, HHC applies a multi-criteria decision analysis to common population health measures. A set of 38 health outcomes were scored based on criteria that considered the amount of people impacted, disease severity, uniqueness to the local community, and the current trends. The health outcomes ranking first overall in the City of Hamilton were lung cancer, unintentional poisoning, and chronic obstructive pulmonary disease.



## **Session 12** Monitoring cannabis use and harms in Ontario: Identifying potential indicators

**Date and location:** Tue Nov 27, 1:00-1:30 pm, Canadian A/B Room

**Presenter:** Justin Thielman, Public Health Ontario

**Additional authors:** Brent Moloughney and Pam Leece, Public Health Ontario

**Abstract:** In the changing legal environment around cannabis, it is important to monitor potential changes in cannabis use and cannabis-related harms. This presentation will examine cannabis monitoring in other jurisdictions, discuss which indicators are identified as high priority to public health practitioners in Ontario, and describe data sources that capture the high priority indicators in Ontario.

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## **Session 13** Strengthening a population health approach for health system planning

**Date and location:** Tue Nov 27, 1:30-2:00 pm, Elizabeth Room

**Presenters:** Marc Lefebvre, Public Health Sudbury and Districts and Amira Ali, Ottawa Public Health

**Additional authors:** Vera Etches, Ottawa Public Health; Lise Labrecque, Ottawa Public Health; Ruta Valaitis, McMaster University; Anita Kothari, University of Western Ontario; Nancy Murray, McMaster University; Louise Simmons, Eastern Ontario Health Unit; Cal Martell, Champlain LHIN; Sinéad McElhone, Niagara Region Public Health; Ruth Sanderson.

**Abstract:** The 2017/18 a Special Edition LDCP project, aimed to answer: "What are the key elements for a successful PHU-LHIN collaboration as required by *Patients First Act*, to achieve an improved health system in Ontario informed by a population health approach?" A mixed methods study design was used for this two-phase study. In phase 1, a qualitative study was used to inform a cross-sectional online survey (phase 2). LHINs and PHUs share ideas and motivation for collaborative work in the interest of the community's health. Various processes and structures can be put in place to support this vision for working together.

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## **Session 14** Youth drinking and policy: Evaluating the impact of Ontario alcohol policy change on the alcohol use behaviours of adolescents

**Date and location:** Tue Nov 27, 1:30-2:00 pm, Canadian A/B Room

**Presenter:** Mahmood Gohari, University of Waterloo

**Abstract:** Since December 2015, some grocery stores across Ontario allowed selling alcoholic beverages. Using data from 2295 students in grades 9 to 12 across Ontario and Alberta we evaluated to what extent the policy changes affected youth trajectories of alcohol use. This quasi-experimental study identified four classes of alcohol drinkers: Non-drinkers, experimenters, light drinkers, and heavy drinkers. Alcohol trajectories of youth that exposed to the new policy indicated a higher likelihood of transition to the problematic drinking statuses relative to unexposed youth. We observed less likelihood of returning to a lower severity class or transitioning out of drinking than unexposed groups.



# Workshops

## **Workshop A** Using a toolkit to measure health inequalities in Canada

**Date and location:** Mon Nov 26, 1:30-2:45 pm, Niagara Room

**Presenters:** Erin Pichora and Noura Redding, Canadian Institute of Health Information

**Additional authors:** Sara Allin, Kinsey Beck, Christina Catley, Geoff Hynes, Maegan Mazereeuw, and Dana Riley, Canadian Institute of Health Information

**Description:** Health equity is a growing priority for healthcare systems in Canada; however, there is limited routine measurement and reporting of inequalities in health care access, quality and outcomes. This workshop will provide participants with an overview of a toolkit developed by the Canadian Institute for Health Information (CIHI) to plan, analyze and report on inequalities. Using a practical example, participants will learn how to use newly developed standard equity stratifier definitions, identify available stratifiers in CIHI and Statistics Canada data, calculate stratified indicator rates and summary measures, and apply key guidelines for interpreting and reporting inequalities.

### **Objectives:**

- Access and explore CIHI's Toolkit for Measuring Health Inequalities in Canada and corresponding bundle of 4 e-Learning courses
- Select relevant equity stratifiers for your analysis by 1) using standard definitions developed by CIHI for age, sex, gender, income, education and geographic location (urban vs. rural/remote) and 2) conducting a literature review to assess additional stratifiers
- Explore and assess methods of accessing equity stratifier data for carrying out health inequalities measurement using CIHI's equity stratifier inventory
- Explain the steps and key considerations for calculating stratified health indicator rates and become familiar with CIHI's SAS macro to calculate overall and stratified crude and age standardized rates
- Explain key considerations for quantifying inequalities using summary measures and become familiar with CIHI's SAS macro to calculate four summary measures
- Interpret indicator rates and summary measures to identify key findings
- Describe the recommended approaches to presenting health inequalities findings effectively for your target audience



## **Workshop B** Introduction to evidence-informed decision making

**Date and location:** Mon Nov 26, 1:30-2:45 pm, Elizabeth Room

**Presenter:** Dr. Maureen Dobbins, Scientific Director, National Collaborating Centre for Methods and Tools

**Description:** This interactive workshop offers an introduction to evidence-informed decision making (EIDM), following the seven steps of the EIDM wheel. Following up on the keynote panel, this workshop will continue to delve into the importance of EIDM and provide opportunities to practice EIDM knowledge and skills, including defining a research question, conducting critical appraisals, and adapting and implementing a change into practice.

### **Objectives:**

By participating in this workshop, participants will:

- Become familiar with a process for evidence-informed decision-making
- Gain hands-on experience with EIDM tools and supports
- Identify strategies for building staff capacity to contribute to evidence-informed decision-making

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## **Workshop C and D** The Importance of Data in Quality Improvement Projects

**Date and location:** Tue Nov 27, 11:00 am-12:00 pm and 1:00-2:00 pm, Niagara Room

**Presenters:** Nicole Stefanovici, Annette Sonneveld, Madelyn Law and Caitlin Muhl, Continuous Quality Improvement Locally Driven Collaborative Project

**Description:** It is essential that public health professionals are able to effectively assess and modify the way in which programs and services are delivered to ensure that they are effective, efficient, safe and client focused. Quality improvement tools and methodologies can be used to reflect on and enhance existing public health practices. Having good data to drive quality improvement projects is essential in order to identify root causes, set aims and study the ongoing progress. This workshop will outline core quality improvement methodologies, specifically focusing on the use of data to drive improvement. Examples of QI projects in public health will be provided to highlight the use of QI in practice.

**Note:** Workshops C and D are identical offerings of the same session, available in two time slots to allow conference attendees greater flexibility concurrent sessions of interest.



# Poster Presentations

Asterisks (\*) denote rapid poster presentations (Tuesday November 27, 10:30 am)

For a listing of the full abstracts, please visit <https://www.apheo.ca/2018-conference-workshop>.

## Foundational Standards

### 1. **\*The building blocks of our community: Niagara's Village of 100**

Rachel Skellet, Sandy Dupuis, Tim Chisamore, Ryan Waterhouse, Niagara Region Public Health  
Niagara's Village of 100 was developed to share region-level and municipal-level census data with internal staff, as well as community partners, local area municipalities and residents. 2016 census data were analyzed and presented as a series of infographics, along with a Twitter-based social media campaign. Come and join us to learn about how Niagara has engaged with local agencies to ensure this data is reaching those who are serving these populations.

### 2. **\*A scoping review of the history, temporal trends, and attributes of regionalized provincial health systems in Canada**

Leah Hagerman, Dr. Lauren Wallar, Dr. Laura Rosella, University of Guelph, Dalla Lana School of Public Health

Over the past 30 years, many Canadian provinces and territories have developed regionalized health care systems. However, little is known of the context and impact of these structures on population health. We conducted a scoping review to compile and characterize documents describing the history, temporal trends, and attributes of regionalization in Canada. Historical data was visually represented using timelines. This review will provide an overview of regionalization in Canada, and will inform researchers and policy-makers involved in health system re-organization.

### 3. **\*A better way: Assessing tools and methods public health officials can use to address health inequity within the local homeless population.**

Katelynne Moors, Christopher Kenny, Emily Gillies; Conestoga College, Ryerson University

A poster presentation exploring the current issue of health inequity, health care access, and communicable disease transmission within the local homeless community of Niagara Region. This presentation will include a summary of the current services Niagara Region Public Health provides local homeless shelters and communities, a brief review of current literature pertaining to health inequity and the homeless populations from across Canada, and explores the various tools, programs, and support services public health units can and are using to address health inequity within this vulnerable population.

## Chronic Disease Prevention and Well-Being

### 4. **\*Effect of sociodemographic and health system contextual factors on the association between multimorbidity and colorectal cancer survival: A population-based retrospective cohort study**

Andrea Fortin, Dr. Anna Kone, Dr. Lindsay Galway, Lakehead University

Colorectal cancer (CRC) is predicted to be the second most commonly diagnosed cancer in Ontario in 2018. Prior studies have shown that comorbidities adversely impact CRC survival, however, few studies have examined how patient sociodemographic and health system contextual factors may modify this relationship. The objective of this study is to explore the effect of sociodemographic (age, sex, income level, degree of rurality) and health system contextual factors (continuity of care, primary practice models) on the association between multimorbidity and CRC survival. This study will include a population-based 10-year retrospective cohort of adults diagnosed with CRC in Ontario, Canada.

**5. The association between cancer and mental disorders among emerging adults****Jennie Tang, University of Waterloo**

Cancer is the leading disease-cause of mortality among emerging adults (EAs) aged 15-29 years. In addition to the normative stresses of navigating this critical developmental period, the trauma of living with cancer can have long-term psychiatric consequences. This study will estimate the prevalence and sex differences of mental disorder for EAs with cancer, and examine mental healthcare service utilization needs across EAs. Findings will inform the allocation of appropriate healthcare resources for EAs, and reduce mental comorbidity. Interventions will help improve coordination of services within the health by refining transition protocols from the pediatric to adult health system.

**6. \*Interaction of depression and care management on the survival of cancer patients with other comorbidities****Ambili Kariaparambil Rajan, Dr. Anna Kone, Dr. Deborah Scharf, Lakehead University**

Depression and other comorbidities are associated with increased mortality in cancer patients. This study will examine whether the association between comorbidities and survival in patients diagnosed with cancer in Ontario is modified by the presence of depression and care management. A population-based retrospective cohort study will be conducted on all adults diagnosed with cancer in Ontario between 2003 and 2013, who were alive at least one year after cancer diagnosis. The cohort will be defined and followed until 2017 to assess survival using provincial administrative data obtained from the Institute of Clinical Evaluative Sciences.

**7. Validating a global measure of severity in children with chronic illness****Braden K. Tompke, Dr. Mark Ferro, University of Waterloo**

Chronic physical conditions are typically managed by monitoring their severity and progression. We developed the Global Assessment of Severity of Illness Scale (GASI)—a one-item scale which measures severity in multiple conditions in children. Validation objectives for the GASI include tests for construct validity, reliability, responsiveness, and discriminant validity. Initial evidence for validity and reliability is demonstrated by significant correlation with comparable scales. The GASI is the first scale to allow meaningful severity comparisons between children with different chronic conditions and will help fill gaps in comparative pediatric research and simplify practice.

**8. Multimorbidity in children and youth: a scoping review****M Claire Buchan, Isabella Romano, Dr. Mark Ferro; University of Waterloo**

This is the first scoping review conducted to map the research in the field of multimorbidity (co-occurrence of physical and mental illness) among youth. A systematic search was conducted in four key electronic databases to answer the following questions (1) What types of research on multimorbidity in children and youth have been conducted? (2) In which settings have these studies been conducted? (3) Which target populations have been addressed by previous multimorbidity studies in youth? (4) What comorbid chronic illnesses have been investigated? And (5) what identifiable questions have yet to be addressed through child and youth multimorbidity research?

**9. The impact of family functioning on child mental service use: Implications for clinical services****Irina Oltean, University of Waterloo**

The prevalence of mental disorder is high among young people; 13% of Canadian youth aged 5-24 years have a mental disorder. Evidence shows that family dysfunction is a factor predicting the development of child mental disorder. Less is known about family environment and mental health service use in children. This research will examine the interrelationships of family functioning, child mental disorder, and mental health service use. Understanding the role of the family in using child mental health services is essential in improving health service provision to families, through the adoption of family-centred care strategies.

**10. \*Risk and protective factors for stress impacting academic performance in post-secondary students**

Konrad Lisnyj, Department of Population Medicine, University of Guelph

Stress is a significant contributor to developing poor mental health. Post-secondary students are vulnerable to experiencing stress due to their overwhelming academic-, financial-, relational-, and career-related demands. The National College Health Assessment (NCHA) survey collects information on post-secondary students' habits, behaviours, and perceptions of various health topics, including stress. A multivariable logistic regression analysis was performed using 2016 NCHA data to measure the association between human capital risk and protective factors of stress on academic performance across two universities. Results will help institutions develop proactive interventions that build resilience in students to alleviate the impact of stress on academic performance.

**Infectious and Communicable Diseases Prevention and Control****11. A spatio-temporal description of Lyme disease emergence in an eastern Ontario public health unit**

John Cunningham, Leeds, Grenville and Lanark District Health Unit

Lyme disease is the most reported vector-borne disease in North America, where the Black Legged tick (*Ixodes Scapularis*) is responsible for transmitting the bacterial causative agent (*Borrelia Burgdorferi*) to humans and other animals. Analyzing the spatial distribution of confirmed Lyme cases can lead to a better understanding of how quickly the disease is spreading across a geographic region, whether the disease has become endemic and what populations are at higher risk for acquiring the disease. Year-over-year data from the Integrated Public Health Information System (iPHIS) were analyzed to characterize epidemiologic disease trends and aid in creating maps to provide measures of local risk for disease acquisition. Data indicates that both the incidence and geographic distribution of Lyme disease has increased markedly in the region between 2010 and 2017.

**12. A perfectly imperfect solution: Assigning LHIN geography using proxy geospatial data from iPHIS**

Badal Dhar, Morgan Barnes, Brenda Lee, Karen Johnson, Christina Renda, Gillian Lim, Andrew Lefebvre, Public Health Ontario

In 2018, Public Health Ontario (PHO) began describing the geographic distribution of cases by Local Health Integration Network (LHIN) in the online tool Reportable Disease Trends in Ontario (RDTO). Case data in RDTO comes primarily from the integrated Public Health Information System (iPHIS), which collects geospatial data including residential address and Public Health Unit (PHU). At present, the LHIN in which a case resides cannot be recorded in iPHIS. This poster describes PHO's process for assigning cases to LHINs using residential postal code, city of residence and diagnosing health unit and the degree of success achieved by this process.

**13. \*Reporting characteristics of disease maps**

Inthuja Selvaratnam, Olaf Berke, Jan Sargeant, Abhinand Thaivalappil, University of Guelph

The increasing availability of spatial data and mapping software makes disease mapping widely practiced and accessible. This study investigated a cross-sectional sample of research articles presenting disease maps of zoonoses. Study objectives were to: a) identify key characteristics reported with disease maps, b) assess the purposes and applications of disease maps, and c) identify whether biases and limitations in geospatial analyses were reported.



## School Health

- 14. \*The Children Count Pilot Study: Evaluating the collaborative process between public health units and school boards to develop and implement a consistent student health survey module**  
Smit Patel, Jessica Deming, Laura Zettler, Windsor-Essex County Health Unit; Region of Waterloo Public Health and Emergency Services; Chatham-Kent Public Health Unit

Objective: To describe the results of the Children Count Pilot Study mid-point evaluation and to provide an overview of the newly developed health survey module. Methodology: Public health unit and school board partners (English and French) participating in the Children Count pilot study have collaboratively developed a new health survey module for use with school-aged children. The collaborative process was assessed using mixed methods. Results: Evaluation results will be compiled before the APHEO conference.

## Substance Use and Injury Prevention

- 15. \*Clearing the smoke: Evaluating the effectiveness of the Hamilton Quits Smoking Care Pathway**  
Amanda Stypulkowski, Dessi Telbis, Megan Lynch, Hamilton Public Health Services

An outcome evaluation was conducted to measure the effectiveness of the Hamilton Quits Smoking Care Pathway as a standardized tool for service providers to refer clients to cessation services and reduce smoking rates among priority populations. Findings show that the Care Pathway increased the number of clients referred to smoking cessation services, resulting in a 65% increase in enrollments. There was an additional 36% increase in clients who quit smoking within one year after program implementation. Smoking cessation programs recognize the significance of serving priority populations, however, additional efforts are required to develop an equitable approach to target priority populations.

- 16. Understanding trajectories of youth alcohol use in Ontario: Longitudinal evidence from the COMPASS study**

Mahmood Gohari, University of Waterloo

To investigate distinct subgroups of alcohol users within a cohort of 18,138 Canadian youth and the likelihood of changes between subgroups. Latent transition analysis found four classes of alcohol drinkers: non-drinkers, periodic drinkers, light drinkers, and regular drinkers. Alcohol use tends to increase among those who start, but the volume of increase was not the same across all populations of youth. We also observed a considerable degree of returning to a lower severity class or transitioning out of drinking. Interventions can be tailored to target specific groups of youth.