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Student Voice

Student project abstracts

2017 NEWSLETTER
EIGHTH EDITION



WELCOME TO THE STUDENT VOICE NEWSLETTER!

This past year, over 130 students and trainees came to Public Health Ontario (PHO) to learn, think, and grow. We hosted student placements and practicums from a wide variety of academic programs including: medical laboratory science, public health and preventative medicine, pharmacy, nursing, epidemiology, communications, health informatics, and many more. The diversity of the programs and students speaks to the growing field of public health and the variety of possible careers in public health in the future.

I'm proud of our student placement program, and the rich learning opportunities that are provided to students here. PHO staff across the province support student learning in many ways: be it in a formal preceptor or supervisor role; taking a half hour to discuss current events in public health; or making our students feel welcome. All of these efforts contribute to our positive learning environment.

A question I'm often asked is how to get experience in the field of public health. Student placements are just one of many options. You can also consider finding a student club on your college or university campus that you're interested in, volunteering with a non-profit organization,

getting to know your local public health unit, and exploring international opportunities to gain new perspectives. Attending conferences to learn about new research and network with other young professionals, and taking advantage of student rates to professional organizations and groups are also great ways to make connections and gain health experience.

In this newsletter, you will find summaries of student projects written by some of the students who completed placements at PHO in 2017. You'll also learn about this year's Summer Student Day as well as our new mentoring program.

Here's to another exciting year ahead,

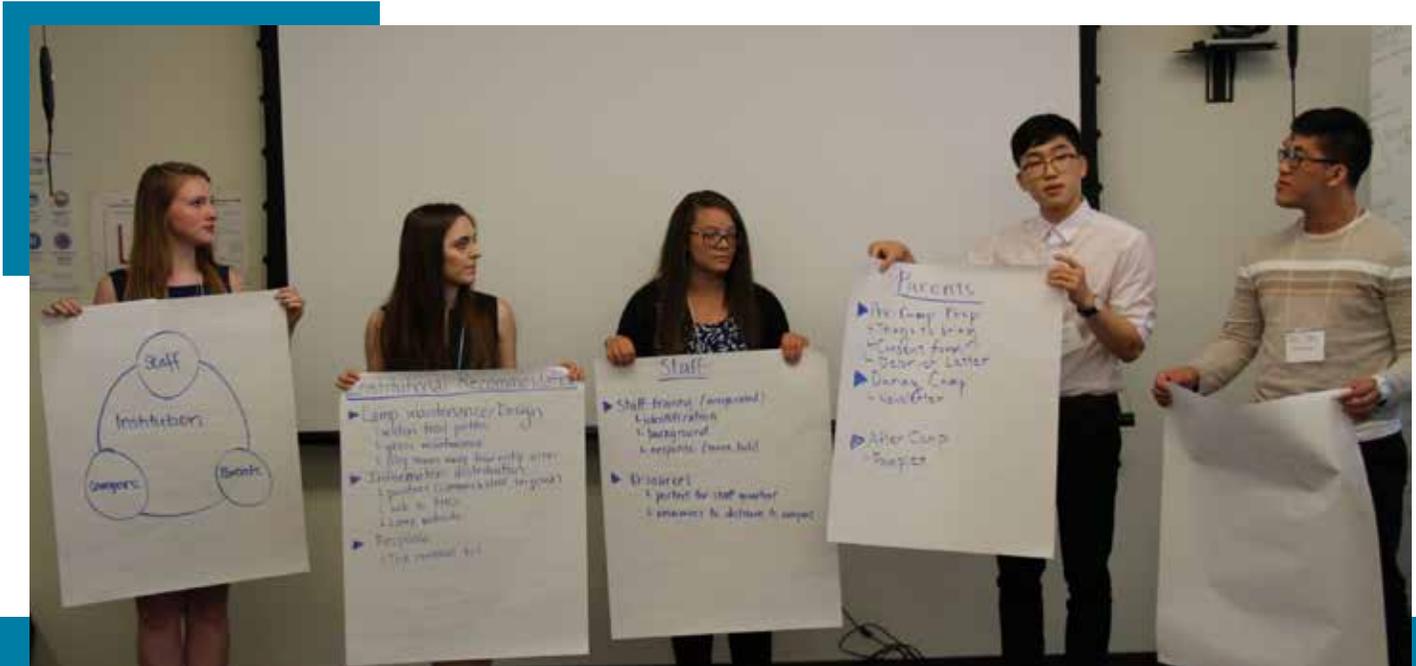
Dan Johnson
Education Specialist, Public Health Ontario



Dan Johnson chatting with Dr. Peter Donnelly and Dr. Doug Sider after a PHO Rounds event

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SUMMER STUDENT DAY 2017

Exploring Lyme Disease: Public Health Responses

Summer student day is an opportunity for placement students from various program areas across PHO to collectively explore an emerging public health topic from a variety of perspectives. This year, we focused on Lyme disease and the different roles within public health that are involved in preventing, controlling, and monitoring this vector-borne disease. We were fortunate to have Dr. Curtis Russell, a Senior Program Specialist, discuss tick collection and surveillance in Ontario. Dr. Samir Patel, Deputy Chief, Medical Microbiology, shared how doctors are trained to diagnose and treat Lyme disease. Joan Mays, Manager, Community Health Protection from Leeds, Grenville & Lanark District Health Unit reported on how Lyme disease is being managed at a local health unit level.

In the afternoon, students broke into small groups to apply their new knowledge to some real-life scenarios involving Lyme disease. The four scenarios were: write a sample briefing note on Lyme disease prevention for a Medical

Officer of Health, prepare for a typical media interview, develop appropriate recommendations to a summer camp on preventing Lyme disease, and plan surveillance strategies and recommendations to a health unit. The students then had an opportunity to present their work and discuss the scenarios with PHO staff, leading to meaningful conversations and interactions with the experts.

Students agreed that it was an amazing experience to hear from leading experts in Ontario about the work they are currently doing, and to have the opportunity to apply the knowledge they learned about Lyme disease to some realistic public health situations.



SUMMER STUDENT DAY PHOTOS



Students presenting on Lyme disease responses



BUILDING LASTING CONNECTIONS

PHO's new Student/Trainee Mentoring Program

In the spring of 2017, a new mentoring program was launched for PHO's students and research trainees. Mentoring has occurred informally across PHO for years, and past students have expressed interest in a more structured program. This new program gives students and trainees, as well as PHO employees, an opportunity to participate in and benefit from learning and skill development opportunities above and beyond the traditional student-preceptor relationship.

During the program's initial phase from May to August 2017, 19 pairs of employees and students participated. Students were paired with a mentor working in a different program area to give them exposure to another public health discipline and introduce them to diverse career opportunities. The program focused on exploring career

options, academic planning, transitioning into the workforce, and building professional networks. Mentors gained skills in coaching, active listening, and giving feedback.

It was great to see students and PHO staff contributing to the learning environment at the organization. Many of the mentoring pairs continue to stay in touch and discuss future career opportunities.



2017 STUDENT PROJECTS

Abstract Overviews

Infection Prevention and Control



Infection Prevention and Control (IPAC) refers to those evidence-based practices and procedures that, when applied consistently in health care settings, can prevent or reduce the risk of transmission of microorganisms to health care providers, other clients/patients/residents and visitors.

PEYMAN SHARIFI-TEHRAN

University/College:
Lakehead University

Program:
Master of Public Health

Supervisors at PHO:
Vicky Willet & Omar Sharif

PROJECT TITLE:

Understanding and enhancing engagement of infection control professionals over a large dispersed area

SUMMARY OF PROJECTS:

In respect to the ongoing challenges with poor attendance and participation at Community of Practice meetings, as well as a lack of stakeholder engagement due to the geographical nature of the Regional Infection Prevention and Control (IPAC) Team – North, the purpose of this project is to better identify the needs of the Infection Control Professionals (ICPs) within the region and best strategies for engagement with the ICPs, taking into consideration the geography and complexity of their roles (i.e. competing priorities). By first conducting a literature search to obtain

status of knowledge on strategies for engagement, and then a consultation phase in the form of interviews/focus-group methods with stakeholders from Acute care, Long-Term care, and Public Health Unit areas, the project's findings could help the Regional IPAC Team – North – and perhaps even the other Regional IPAC Teams – on how to effectively approach stakeholders and meet their individual needs.

REISHA FERNANDES

University/College:
University of Guelph

Program:
Master of Public Health

Supervisor at PHO:
Jeffrey Smith

PROJECT TITLE:

Systematic review of occupational contact dermatitis

SUMMARY OF PROJECT:

The main project was to conduct a systematic review to inform the Best Practices for the Prevention, Detection, and Management of Occupational Dermatitis in Healthcare Settings document. The project involved screening articles for inclusion, data abstraction, quality appraisal using the PHO Meta-QAT, critical appraisal, and article summaries were performed to inform recommendations. A secondary project is to perform hand hygiene compliance audits in long-term care homes. The data from these audits will be linked to a novel Hand Hygiene Behaviour Change (HHBC) tool that has been mapped

to constructs of the Theoretical Domains Framework. The hypothesis is that implicit attitudes measured using the HHBC tool will correlate to actual hand hygiene compliance behaviour. If a correlation exists, then it is hypothesized that interventions can be developed to improve attitudes towards hand hygiene, thus increasing habitual hand hygiene compliance rates.

REBECCA LING

University/College:
Dalla Lana School of Public Health, University of Toronto

Program:
Master of Public Health, Epidemiology

Supervisors at PHO:
Camille Achonu & Dr. Jennie Johnstone

PROJECT TITLE:

Investigating the relationship between Vancomycin-Resistant Enterococcus screening practices and healthcare-associated Clostridium difficile infections in Ontario

SUMMARY OF PROJECT:

Clostridium difficile is a leading cause of health care-associated diarrhea, and prevention of C. difficile infection (CDI) in hospitals is an important patient safety priority. A previous study found that after ending screening and isolation practices for vancomycin-resistant Enterococcus (VRE), hospitals experienced significantly higher rates of VRE bacteremia. Since VRE and C. difficile both share similar modes of transmission, infection prevention and control activities for VRE may indirectly

affect CDI incidence. Thus, we sought to determine whether discontinuing VRE screening and isolation practices were associated with increased health care-associated C. difficile incidence. Hospitals that continued ongoing VRE screening practices were used as a comparison group. Findings from this study will inform whether there are indirect benefits for C. difficile infection management from VRE screening practices in hospitals.



PHO students sharing and learning at Summer Student Day





Environmental and Occupational Health

Environmental and Occupational Health provides scientific and technical advice and support to our clients with respect to a variety of existing and emerging environmental health issues such as indoor air quality, outdoor air pollution, drinking and recreational water, food science and safety, environmentally transmitted infections, heat and cold related health impacts, radiation and community noise.

KATHERINA CHOJNACKI

University/College:

University of Waterloo

Program:

Master of Public Health, Environmental Health Science

Supervisor at PHO:

Dr. Jin Hee Kim

PROJECT TITLES:

Blood lead levels in children within the Toronto and Kingston areas: A collaborative study

SUMMARY OF PROJECTS:

Blood lead levels (BLLs) have decreased dramatically since the 1970s. This is related to several key population-level interventions (e.g. phasing out of leaded gasoline, paint, solder). However, sources of lead remain in the environment, and toddlers are at an increased risk of exposure as a result of greater hand-to-mouth behaviour. Past studies have documented a childhood peak in blood lead from 12-36 months of age.

This study was a cross-sectional and prospective analysis of a subset of the TARGet Kids! cohort. This is a study of children in Toronto and Kingston coordinated

by The Hospital for Sick Children and St. Michael's Hospital.

The present analyses included:

- Examining the age-related trend of BLLs, utilizing multivariate statistics and splines
- Exploring demographic and lead-related factors that influence BLLs in children, such as income and age of housing

Results may be useful for physicians seeing young children and provide insight into potential risk factors.

SAEHA SHIN

University/College:

Dalla Lana School of Public Health, University of Toronto

Program:

Master of Public Health, Epidemiology

Supervisors at PHO:

Dr. Hong Chen & Dr. Jeff Kwong

PROJECT TITLE:

Ambient air pollution and the risk of stroke and atrial fibrillation

SUMMARY OF PROJECT:

Air pollution has emerged as one of the leading environmental contributors to cardiovascular burden. Particularly, atrial fibrillation (AF) is the leading arrhythmia that has adverse impact on the clinical outcomes. AF is also a powerful risk factor for stroke, which often results in disability, cognitive decline, mortality, and healthcare costs. Given the enormous burden and plausible biological mechanisms linking air pollution exposure and cardiovascular events, we assessed the associations between long-term exposure to ambient air pollution and the incidences of AF and

stroke using a population-based cohort in Ontario, Canada. We further evaluated the shapes of the exposure-response relationships essential for developing policies and programs that will effectively protect the public from air pollution in Canada and elsewhere. We found suggestive evidence of an association between air pollution and both stroke and AF. Our results highlight the importance of continued pollution abatement efforts even in low levels in Ontario, Canada.

PHOTOS OF THE TEAMS WORKING ON THEIR PRESENTATIONS



Students and PHO staff discussing real-life experiences and responses





Knowledge Services

The Knowledge Services (KS) Division provides a range of specialized services to advance public health knowledge and practice, and leads the development and delivery of professional development, communications, knowledge generation, exchange and dissemination of supports and resources, and data and information. KS consists of two departments: Knowledge Exchange and Communications, and Informatics.

CHRISTINE CARTHEW

University/College:

University of Toronto

Program:

Master of Public Health,
Health Promotion

Supervisors at PHO:

Stacie Carey &
Allison McArthur

PROJECT TITLE:

Building organizational capacity for knowledge exchange

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SUMMARY OF PROJECT:

This practicum involved planning and leading the initial implementation of a situational assessment exploring individual and organizational-level strategies for knowledge exchange capacity building. Situational assessment refers to the systematic process of gathering, interpreting, synthesizing and communicating data for the purpose of informing planning decisions. In the present case, data was obtained through literature review, internal document review

and key informant interviews. The findings of the situational assessment are being interpreted to identify strategies for knowledge exchange capacity building that are of potential relevance to Public Health Ontario. The ultimate aim of this work is to develop a strategic approach to build capacity for knowledge exchange at Public Health Ontario.

FEIFEI SHANG

University/College:

University of Toronto

Program:

Master of Health
Informatics

Supervisor at PHO:

Julian Martalog

PROJECT TITLE:

- 1) Environmental scan of reference data model
 - 2) Summary of small area analysis survey
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SUMMARY OF PROJECT:

Project 1:
Public Health Ontario (PHO) has numerous of data holdings that are used to support routine operations, research and evaluation. These data holdings often contain overlaps in particular data categories.

The goal of a reference data model (RDM) is to detail semantic interoperability and facilitate enhanced integration of data.

In order to create a RDM, it is important to understand the content, structure, and development process of the model. Therefore, an environmental scan of RDMs was conducted, which included literature review and informant interviews. The findings of the environmental scan

informed our project team on the structure and content of existing RDMs, as well as the processes other organizations have followed in developing an RDM.

Project 2:
In addition to the RDM project, I also completed a summary on the small area analysis (SAA) survey. Public health units (PHUs) often require information at the sub-health unit level to plan and evaluate health services. Results from this survey will be used to support the development of a SAA resource document.



Health Promotion, Chronic Disease and Injury Prevention

The Health Promotion, Chronic Disease and Injury Prevention (HPCDIP) department delivers high-quality research products and capacity building services to Ontario’s public health system, partner ministries, health promotion intermediaries, and partner resource centres. The work of HPCDIP covers a broad range of public health topics, including: health promotion, chronic disease prevention, injury prevention, alcohol policy, nutrition policy, child and youth health, family health, tobacco control, health equity, mental health and more.

KIRSTEN LEE

University/College:

University of Waterloo

Program:

Master of Science,
Public Health and Health
Systems

Supervisor at PHO:

Dr. Erin Hobin

PROJECT TITLE:

Ratings and rankings of menu labelling on perceived effectiveness among parents

SUMMARY OF PROJECT:

The increasing trend of eating away from home among Canadians is a concern due to the higher amounts of calorie-dense foods sold in consumer settings. A recent push occurred with menu labelling as a potential strategy to promote informed food choices, but less attention has been given to parents’ use of these labels when making decisions for their children. This study compares and assesses the perception of parents on the effectiveness of various

labelling formats for presenting nutrition information on children’s menus in restaurants. The results of this study provide recommendations on the most optimal menu label format to meet the information needs of consumers.

RUHI KIFLEN

University/College:

McMaster University

Program:

Master of Public Health

Supervisors at PHO:

Justin Thielman &
Dr. Heather Manson

PROJECT TITLE:

Evidence Brief: Neighbourhood walkability and Type 2 Diabetes

SUMMARY OF PROJECT:

The rising rates of chronic diseases, including type 2 diabetes are of high concern in Ontario. While many efforts related to physical activity and healthy eating have been taken to address this concern, type 2 diabetes incidence is on the rise. Neighbourhood walkability has been of particular interest among public health professionals as having a critical role to address the rise in chronic diseases. We completed an evidence brief using rapid knowledge synthesis methods to provide a summary of the current evidence on the association between neighbourhood walkability and type 2 diabetes among urban

residents in Canada, New Zealand, Australia, Western Europe and the United States of America. The findings from this brief can inform policies that seek to re-design the built environment to support walkability to improve population health outcomes and support ongoing walkability research at Public Health Ontario.

SIMRAN SHOKAR

University/College:
University of Toronto

Program:
Master of Public Health,
Epidemiology

Supervisor at PHO:
Dr. Erin Hobin

PROJECT TITLE:

- 1) Examining the impact of the Ontario Menu Labelling Legislation on the nutritional composition of restaurant foods and beverages
 - 2) Investigating the efficacy of different approaches to calorie labelling for alcoholic beverages on restaurant menus in Ontario: evidence to inform the Healthy Choices Act
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SUMMARY OF PROJECT:

Ontario recently passed the Healthy Choices Act mandating chain restaurants to place calorie information on menus for all food and drinks, including alcoholic beverages. The impact of this legislation is currently being investigated.

Project 1:
The restaurant menu labelling study is a longitudinal study that began in 2010 and is investigating changes in the nutritional composition of restaurant food and beverages. We collected 2017 data (post-legislation period, effective January 1st, 2017) to understand if changes have taken place in “real time”, and the restaurants will be followed up again in 2 years.

Project 2:
This is the first legislation in Canada to mandate calorie information for alcoholic beverages. The alcohol menu labelling study aims to experimentally test the efficacy of various formats for displaying calorie information for alcoholic beverages on young adults’ purchase intentions. The data we collected will be used to inform menu labelling policy provincially and nationally.

VANESSA DE RUBEIS

University/College:
Queen’s University

Program:
Master of Public Health

Supervisors at PHO:
Dan Harrington, Rachel Laxer & Jocelyn Jarvis

PROJECT TITLE:

A Media Analysis of “Water Does Wonders”
Measuring potential exposure to the Healthy Kids Community Challenge (HKCC)

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SUMMARY OF PROJECT:

The Healthy Kids Community Challenge (HKCC) was developed by the Ministry of Health and Long-Term Care (MOHLTC) to provide children with supportive environments to promote healthy behaviours. The MOHLTC funds 45 communities across Ontario to develop community-based initiatives that focus on a particular theme. Communities are encouraged to promote their initiatives using social media.

The objective of this project was to conduct a media analysis on the second theme of the

HKCC (“Water Does Wonders”). Data collected from 23 community Twitter pages, 28 community Facebook pages, and 2,725 Tweets were analyzed in both SAS and Excel. The analyses revealed great variation in the source and content of social media messages, as well as variation in the users of each social media platform. These findings contribute to the ongoing evaluation of the HKCC, as it reveals the potential exposure to the HKCC initiative through social media.

WHITLEY MEYER

University/College:
Queen's University

Program:
Master of Public Health

Supervisors at PHO:
Ben Rempel, Jason LeMar
& Allison Meserve

PROJECT TITLE:

Evidence Brief: Simultaneous use of alcohol and cannabis

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SUMMARY OF PROJECT:

Simultaneous use of alcohol and cannabis is prevalent among youth and adults and can present unique challenges and considerations compared to use of either substance alone. A public health approach to addressing simultaneous alcohol and cannabis use requires an understanding of the harms and risk-factors associated with this behaviour.

substance use behaviour. Findings from this article will inform public health stakeholders on which sub-groups may be at highest risk of this harmful behaviour. Further work addressing strategies to minimize simultaneous use of alcohol and cannabis can build on the evidence provided by this article.

A Focus On was developed to highlight the prevalence and potential for adverse outcomes associated with this type of

Transforming knowledge into action through unique learning opportunities





Applied Immunization Research

Applied immunization research is a cross-cutting PHO scientific initiative. The purpose of applied immunization research is to guide immunization programs, maximizing the synergies of interdisciplinary research in order to deliver innovative, relevant, responsive and impactful evidence that leads to improved health for all Ontarians.

RAINA LOXLEY

University/College:

University of Toronto

Program:

Master of Public Health,
Epidemiology

Supervisor at PHO:

Dr. Natasha Crowcroft

PROJECT TITLE:

- 1) Sero-epidemiology of varicella in Ontario, 2013-2014
- 2) Environmental scan of evidenced-informed immunization policy decision-making

SUMMARY OF PROJECT:

Project 1:

Ontario introduced a single-dose varicella vaccine into the publicly-funded immunization program in 2004, and added a second dose in 2011; however, varicella (chickenpox) still circulates in the province. Using residual sera from across the province, this study estimates varicella immunity by age, sex and geographical region. Immunity to varicella was found to increase with age. Our results identify potentially susceptible groups of individuals, and help assess the risk of future varicella outbreaks.

Project 2:

Evidence-informed policy decision-making for immunization programs is a complex process involving many different stakeholders, sources of evidence, institutions and regulatory bodies, which vary greatly across jurisdictions. We conducted an environmental scan examining concepts and factors affecting research to policy pathways. Understanding how vaccine policy decisions are made is crucial given the amount of resources dedicated to immunization programs in Canada, the continued development of new vaccines and the importance of vaccination as a public health intervention.





Communicable Diseases, Emergency Preparedness and Response

The Communicable Diseases, Emergency Preparedness and Response department provides evidence-based scientific and technical advice to local, provincial and federal partners in government, public health and healthcare. The department has six areas of expertise: Communicable diseases, Emergency Preparedness, Enteric/Zoonotic/Vector-Borne diseases, Immunization and Vaccine-preventable diseases, Operations and Response and Public Health Economics Research.

ANITA DABIRZADEH

University/College:
McGill University

Program:
Master of Science, Public Health

Supervisors at PHO:
Dr. Bryna Warshawsky & Jennifer Pritchard

PROJECT TITLE:

- 1) Literature review on the role of public health and community based interventions on improving hepatitis C treatment adherence
- 2) Survey to public health units on hepatitis C case management practices

SUMMARY OF PROJECT:

Project 1:

It is estimated that approximately 0.85% of Ontarians are infected with hepatitis C virus. Although antiviral medications are able to effectively treat hepatitis C, rates of treatment adherence have been less than optimal. This represents a key public health concern as adherence to treatment is critical to cure infection and prevent subsequent disease transmission. As such, we conducted a literature review to assess the current state of the research on community-based and public health strategies to assist HCV positive patients to adhere to their hepatitis C treatment regimens.

Project 2:

We developed a survey to determine the current case management practices and resources dedicated to hepatitis C in Ontario public health units. The survey also incorporated questions to determine public health units' willingness to support treatment initiation and completion. We hope to use the results of this survey to inform the development of guidance to assist public health units to support patients in hepatitis C treatment initiation and adherence.

LYUBOV KUSHTOVA

University/College:
Queen's University

Program:
Master of Public Health

Supervisor at PHO:
Heather Hanson

PROJECT TITLE:

Timeline of reportable diseases in Ontario (1991-2016)

SUMMARY OF PROJECT:

Public Health Ontario (PHO) is responsible for provincial reportable disease surveillance. In response to internal and external requests from stakeholders to help accurately interpret provincial trends over time, PHO set out to summarize external factors that impact reportable disease trends. The "Timeline of Reportable Diseases in Ontario (1991-2016)" project involved developing a knowledge product that would summarize the major changes to reportable disease status, case definitions, lab testing methods, and other factors that inform reportable disease trends from 1991 to 2016 in Ontario.

Lyubov worked with the knowledge mobilization unit and conducted a focus group with PHO users and stakeholders to determine the most efficient and effective knowledge product to deliver this information, including assessing potential formats and tools currently used at PHO. The final product will serve as a tool for looking at factors affecting reportable disease trends and allow users to make meaningful comparisons over time.

MOHAMMED RASHID

University/College:
McGill University

Program:
Master of Science,
Public Health

Supervisor at PHO:
Dr. Shelley Deeks

PROJECT TITLE:
Assessing safety of Ontario’s publicly funded MMR and MMRV immunization programs, 2012 – 2016

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SUMMARY OF PROJECT:

The combined measles, mumps, rubella (MMR) and MMRV (MMR and varicella) vaccines are part of Ontario’s routine immunization schedule to help protect children against these diseases. The aim of this project was to monitor the safety of these vaccines by summarizing associated adverse events following immunization (AEFIs) reported in the province from 2012 to 2016.

We analyzed detailed reports of MMR and MMRV AEFIs from the provincial passive surveillance database and calculated adverse event rates using doses distribution data. Our observations regarding adverse events reported in Ontario were consistent with the

vaccines’ well-established safety profiles from post-marketing studies. Adverse events were rare and often related to known MMR, MMRV reactions. No fatalities or long-term sequelae were reported and most cases had already recovered or were expected to recover fully. All in all, our assessment ensures that the benefits of MMR and MMRV vaccination far outweigh the risk of associated adverse events.

ZOE CAIRNCROSS

University/College:
University of Toronto

Program:
Master of Public Health,
Epidemiology

Supervisors at PHO:
Karin Hohenadel
& Jeremy Herring

PROJECT TITLE:
Opioid-related harms and socioeconomic inequalities in Ontario:
A population health assessment

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SUMMARY OF PROJECT:

Opioid-related harms in Canada are a critically important public health issue with unprecedented numbers of associated deaths. In the past 25 years, opioid-related mortality in Ontario has increased by 285 percent, with over 730 deaths in 2015 alone. Furthermore, opioid-related morbidity and mortality have been shown to be positively associated with social marginalization, including poverty and unemployment, which means that a large segment of the population in Ontario is likely to be at risk for opioid-related harms.

The objective of this study was two-fold: to better quantify the burden of opioid-related harms in Ontario, and to investigate the relationship between

opioid-related harms and neighborhood-level socioeconomic inequalities in Ontario. Three indicators were investigated: opioid poisonings, non-poisoning opioid-related events, and neonatal abstinence syndrome. We found that neighborhoods with an increased proportion of low-income residents experience higher rates of opioid-related harms. This should be taken into account when planning opioid-related public health interventions.



Public Health Laboratory

PHO has eleven public health laboratory sites across Ontario. We go beyond the clinical testing role of traditional laboratories and address the broader challenge of infectious disease prevention and control. Our labs offer services in clinical and environmental testing, clinical consultation, education and training programs for laboratory professionals and evaluation of new laboratory technologies and methodologies.

REBECCA CURTIS

University/College:

Queen’s University

Program:

Master of Public Health

Supervisor at PHO:

Dr. Anna Majury

PROJECT TITLE:

Exploring, developing and evaluating drinking water vulnerability assessment measures: Implications for rural Ontario communities using private groundwater drinking sources

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SUMMARY OF PROJECT:

The project, currently at its beginnings, focuses on exploring the social epidemiology and quantitative risks associated with private well water in Ontario, combining community based research methods, water stewardship, and risk analysis of contamination and subsequent enteric infection.

A scoping review of the use of Quantitative Microbial Risk Assessments for groundwater contamination and the relationship to human and public health outcomes, particularly enteric infections, was conducted. Further, a QMRA is being developed for risk estimation in the context of Ontario. The initial framework for this QMRA was developed with a focus on E. coli, integrating multiple data sets

including: microbial source tracking data, geospatial information, a provincial survey on well stewardship, and the water wells information dataset, and further populated through meta-analyses of existing literature. Ultimately, the project aims to close the knowledge gap between scientific research and well water users, with the QMRA as an assistive integrated tool.

STEPHANIE DI PELINO

University/College:

Queen’s University

Program:

Master of Public Health

Supervisor at PHO:

Dr. Anna Majury

PROJECT TITLE:

Exploring, developing and evaluating drinking water vulnerability assessment measures: Implications for rural Ontario communities using private groundwater drinking sources

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SUMMARY OF PROJECT:

Ontario has one of the largest groundwater-reliant populations in Canada, with nearly 5 million people deriving their water from a private well. Private well owners are responsible for well stewardship, which includes water quality testing, well maintenance and local source water protection. As the threat of water insecurity increases, the purpose of this project is to close the gap between knowledge and practice by empowering communities to reclaim their well stewardship role. Using the Knowledge, Attitudes, and Practices Framework, I

created the questions for an online survey, semi-structured interviews, and focus groups to collect quantitative and qualitative data regarding well water stewardship in Ontario. This socio-hydrological data will be combined with microbial risk assessment data to minimize the potential adverse health outcomes among communities reliant on groundwater. These findings will support an evidence-informed knowledge translation tool for well owners.

Thank you to all students who submitted an abstract and who chose PHO for their placements!

For more information on the student program at PHO please visit www.publichealthontario.ca/en/LearningAndDevelopment/Pages/Students.aspx

Student placement postings can be found at:
www.publichealthontario.ca/en/About/Careers/Pages/Student-Training-and-Opportunities.aspx

Postings are typically up for about 3 weeks in January (for summer placements), June (for fall placements) and October (for winter placements).