

**Report to
Rapport au:**

**Ottawa Board of Health
Conseil de santé d'Ottawa
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Ward: CITY WIDE / À L'ÉCHELLE DE LA VILLE File Number: ACS2018-OPH-KPQ-0004

**SUBJECT: SUPPORTING OUR COMMUNITY THROUGH APPLIED PUBLIC
HEALTH RESEARCH: AN UPDATE**

**OBJET: SOUTENIR NOTRE COLLECTIVITÉ AU MOYEN DE PROJETS DE
RECHERCHE APPLIQUÉE EN SANTÉ PUBLIQUE : UNE MISE À JOUR**

REPORT RECOMMENDATION

That the Board of Health for the City of Ottawa Health Unit receive this report for information.

RECOMMANDATION DU RAPPORT

Que le Conseil de santé de la circonscription sanitaire de la ville d'Ottawa prenne connaissance du présent rapport à titre d'information.

BACKGROUND

To support Ottawa Public Health's (OPH) vision of ensuring that all Ottawa's people and communities are healthy, safe and actively engaged in maintaining their well-being, the health unit's programs and services must be based on sound evidence and best practices. As part of this, OPH uses evidence-informed decision-making, which is described by the National Collaborating Centre for Methods and Tools (NCCMT) as a "process of distilling and disseminating the best available evidence from research, context and experience, and using that evidence to inform and improve public health practice and policy¹."

Scientific research conducted at OPH, either solely by OPH employees or in collaboration with partners, allows OPH to identify local needs, design innovative and effective interventions, and systematically investigate ways to better serve and care for local communities. Collaborating with other researchers ensures effectiveness in addressing the communities' unique needs. Through these research collaborations, resources and ideas are shared, resulting in more efficient public health practice.

The Ontario Public Health Standards, which provide the framework for all work in public health, highlight the importance of both evidence-informed decision-making and local public health research. The Foundational Standards speak to the fact that "effective public health practice requires boards of health to apply skills in evidence-informed decision-making, research, knowledge exchange, program planning and evaluation, and communication, with a continued focus on quality and transparency²."

To ensure that research involving OPH is conducted in an ethical manner, the health unit has a stand-alone Research Ethics Board (REB) made up of volunteer members. This REB operates in accordance with the Tri-Council Policy Statement (TCPS2): Ethical Conduct for Research Involving Humans. It provides OPH with a source of public accountability when conducting research involving its data, clients, employees, learners and volunteers. REB membership requirements ensure the expertise, multidisciplinary background, diversity and independence of its members. Document 2 lists the current REB members. This diverse membership is essential for competent research ethics review through a public health lens that focuses on certain aspects and/or at-risk population groups that might not receive the same level of attention by other, more medically-oriented REBs. In addition, the REB establishes collaborative partnerships with internal and external researchers to promote ethical conduct

throughout the research process.

DISCUSSION

OPH's evidence-informed decision-making is supported in a variety of ways. In 2017/18, OPH supported six employees to participate in the Knowledge Broker Mentoring program, a "train the trainer" program supported by the NCCMT that teaches how to gather, appraise and review evidence on topics of public health significance. These 'Knowledge Brokers' enhance OPH's evidence-informed decision-making capacity through supporting their peers to further use research evidence in practice by providing training, mentorship and tools.

At OPH, evidence-informed decision-making fits within a larger approach to evidence generation and dissemination. In addition to embedding evidence into our programs and interventions, OPH supports the generation of new evidence through surveillance, evaluation of programs and strategies, and formal research projects. Through innovation and the generation and dissemination of evidence, OPH supports initiatives that have direct impact on the health of our communities.

Research conducted at OPH tends to consist of collaborations with local researchers (based in academic institutions, hospitals or community organizations) on applied public health research projects. OPH collaborates with researchers to investigate local public health needs and to generate effective local interventions that serve our community. In 2017, eleven research projects were approved by OPH's REB, with a further seven projects receiving renewal for research projects continuing from previous years. A full list of these projects can be found in Document 1.

Many of the research projects conducted as collaborations with external research partners could be showcased to highlight the impact on the community, however two are described in more detail below.

Ottawa Public Health has been collaborating with the team of Dr. Gonzalo Alvarez, Ottawa Hospital Research Institute, on a latent tuberculosis (TB) infection research project. When a person has latent TB infection, the TB bacteria have entered the body but are not growing and are dormant, or latent. With latent TB infection, a person does not feel sick and cannot give the TB bacteria to other people. A person with latent TB infection may develop active TB disease in the future, which is often contagious. The treatment of latent tuberculosis infection is a vital component of the overall strategy to reduce TB in a population. Treatment prevents ongoing transmission in communities by preventing the development of active TB disease.

The objective of this study is to investigate the acceptability and completion rates of a new 12-dose treatment (3 month) compared to the standard 270-dose (9 month) treatment for latent TB infection. One of the greatest barriers to latent TB infection treatment is the length of the treatment regime. OPH saw value in participating in the study, as a shorter treatment course for latent TB infection could increase the number of people who accept and complete latent TB infection treatment, which could lead to a decrease in active TB cases.

OPH has played a vital role in this research study by actively monitoring participants taking the treatment medication and sharing relevant data. The study is now in its 2nd year and should yield final results by the end of 2019. These study results will likely influence latent TB infection treatment at a local, provincial and federal level.

As a second example of how research collaborations can improve public health practice and health outcomes for the population, in 2012, OPH partnered with the City of Ottawa Municipal Child Care (MCC) Services to develop evidence-informed Child Care Healthy Eating and Active Living (HEAL) Guidelines for children up to five years of age. These Guidelines set consistent standards of practice in MCC sites and provided recommendations around the eating environment, daily physical activity, screen time and the actual food and beverages served to children while in care. Implementation of the Guidelines consisted of: the completion of a self-assessment tool for child care sites; training sessions for child care employees (including cooks); healthy menus, recipes and resources; ongoing consultation with a Registered Dietitian around menu planning; children's activities to promote healthy eating and active play; National Fundamental Movement Skills Training Certification through the Coaches Association of Ontario; and the provision of resources, menus and recipes for each site. An evaluation was conducted to assess how well the Guidelines were implemented and the utility of the accompanying training and resources. Environmental and programming changes that occurred following implementation were also assessed.

The evaluation demonstrated environmental and programming changes at the 10 sites. Parent satisfaction was high and the evaluation findings showed no real changes in food costs (one center had a 10% reduction in cost). This is an encouraging finding since a significant barrier to implementation of the HEAL guidelines was cost. Following implementation, the cooks reported high compliance to the 6-week menu plans provided, and the number of sites offering 120 minutes or more of daily physical activity increased.

Building on the success of the 2012 study, OPH has collaborated with researchers at

the University of Toronto on a research project examining the impact of the HEAL guidelines in early childcare settings. The impact of the Healthy Eating Active Living Guidelines is assessed using a randomized, pre-test post-test design with a wait-list control, and changes in physical activity are measured using an accelerometer. The sample includes approximately 20 childcare settings located in low socio-economic status areas of Ottawa having at least 15-20 children with ages ranging from 18 months to 3 years and a cook providing meals and snacks at these settings. The study's objectives are to assess whether adherence to these guidelines in early childcare settings: improves the nutrition of children while at the childcare settings; increases the children's physical activity; and decreases children's sedentary behaviour in these childcare settings. The study's findings will be important to support a healthy environment for our children in municipal and other childcare centres.

Research projects often take more than one year to complete and then months or years to enter into the literature through peer-reviewed publication. Journal publications authored by OPH during 2017 represent research that informed our public health practice and allowed us to modify programs and services to better meet the needs of our clients and residents and to provide evidence-informed care for our community. A list of these publications can be found in Document 3.

To support evidence informed public health, OPH will continue to:

- work to increase opportunities for conducting public health-focused evidence generation projects with external organizations;
- access the National Collaborating Centre for Methods and Tools to ensure staff have the best available tools and methods for evidence-informed public health practice;
- ensure all OPH-based research projects are conducted according to the Tri-Council Policy Statement (TCPS2); and
- advance the provision of public health programs and services through high-quality generation, use, and dissemination of scientific evidence.

RURAL IMPLICATIONS

There are no rural implications associated with this report.

CONSULTATION

The purpose of this report is administrative in nature and therefore no public

consultation is required.

LEGAL IMPLICATIONS

There are no legal impediments to receiving the information in this report.

RISK MANAGEMENT IMPLICATIONS

There are no risk management implications associated with this report.

FINANCIAL IMPLICATIONS

There are no financial implications associated with this report.

ACCESSIBILITY IMPACTS

There are no accessibility impacts associated with this report.

SUPPORTING DOCUMENTATION

Document 1 – Research Projects approved or renewed in 2017 by the Ottawa Public Health Research Ethics Board (REB)

Document 2 – List of Research Ethics Board (REB) Members

Document 3 – OPH-Authored Peer-Reviewed Publications, 2017

DISPOSITION

This report is submitted to the Board for information purposes.

¹ National Collaborating Centre for Methods and Tools. Available at:

<http://www.nccmt.ca/about/eiph>

² Ministry of Health and Long-Term Care. Ontario Public Health Standards: Requirements for Programs, Services, and Accountability. 1 Jan 2018; Available at:

http://www.health.gov.on.ca/en/pro/programs/publichealth/oph_standards/docs/protocols_guidelines/Ontario_Public_Health_Standards_2018_en.pdf