Opportunities to Modernize the Built Environment Language in the Ontario Public Health Standards

Recommendations from OPHA's Built Environment & Environmental Health Working Groups to MOHLTC

December 16, 2016

Opportunities to Modernize the Built Environment Language in the Ontario Public Health Standards

Introduction

The built environment has been shown to impact physical inactivity, obesity, cardiovascular disease, respiratory disease, and mental illness. It influences our exposure to environmental health hazards such as air pollution and extreme heat. It shapes our behaviour and affects our health; for instance, the amount of physical activity we engage in and the types of food we eat is shaped and influenced by the built environment and other societal influences. Research demonstrates that the manner in which a neighbourhood is designed and the way land is developed and used, influences transportation choices and impacts traffic-related air pollution levels. Walking for utilitarian reasons is the best way to get the requisite amount of physical activity, and living in an environment that has healthy food choices influences healthy eating practices. Shaping the built environment to support health is a high level investment and a key upstream determinant of health that has a significant impact on numerous health outcomes, from influencing risk factors for chronic diseases and acute illnesses, to protection from health hazards, to affecting equitable access to opportunities for health.

Research indicates that the built environment profoundly impacts the health risks, behaviours and outcomes of the population including:

- Respiratory illnesses such as asthma;
- Injuries and injury-related fatalities;
- Physical activity;
- Access to fresh healthy food;
- Chronic diseases, including obesity, diabetes, cardiovascular disease and some cancers;
- Acute illnesses related to climate change health impacts, extreme heat, and extreme weather events
- Exposure to environmental contaminants such as air pollutants, UV radiation and contaminants in our water;
- Mental health; and
- Aging in place.

The public health sector has an increasingly critical role in advancing healthy public policies that influence the built environment. Our role includes monitoring, measuring and providing

relevant population health surveillance data; providing health evidence and increasing awareness of health impacts to support policy development; facilitating partnerships and collaboration among a range of government and stakeholder groups and; engaging communities and mobilizing groups to participate in the development of health enhancing built environments.

Since the 2008 Ontario Public Health Standards were established, the role of public health in developing healthy built environments has been documented. The Ontario Professional Planners Institute, Canadian Institute of Planners, Healthy Canada by Design, in addition to resources from other provinces highlight the significance of public health in shaping the built environment. The report Public Health and Land Use Planning documents examples of how ten health units in Ontario are working in multiple areas to create healthy and sustainable communities. Since this document was written five years ago, Public Health units have further established themselves as a valuable asset in the built environment policy making process. The Ontario Healthy Communities Coalition also has a series of resources pertaining to health and the built environment.

Recommendations

In summary, our preferred option/recommendation is that the MOHLTC consider a separate Built Environment Standard that is inclusive of the multiple and various health risk factors and health outcomes related to built and natural environments, and that it identifies the opportunities for public health agencies to be engaged in health promotion and protection, policy development, partnership engagement, and other activities that support healthy built environments.

Our second option is that the MOHLTC enhance the program standards that currently address the built environment (e.g. Foundational Standard, Chronic Disease & Injury Prevention Program Standard, Health Hazard Prevention & Management Program Standard).

In addition to the Built Environment components, we have included recommendations below to enhance the Foundational Standard related to health equity, social determinants of health, and a Health in All Policies approach.

Foundational Program Standards

- Consider integrating the concept of a "Health in All policies" approach in order to more systematically influence key determinants of health. The World Health Organization defines a Health in All Policies approach as "an approach to public

policy across sectors that systematically takes into account the health implications of decisions, seeks synergies, and avoids harmful health impacts in order to improve population health and health equity." The Foundational Standard could include a Board of Health Outcome that requires public health to identify and influence key policies in other sectors for which health implications should be assessed and integrated.

- The importance of establishing partnerships across sectors should also be integrated. Research and knowledge exchange activities should direct boards of health to work across sectors to support the creation of built and natural environments that support health.

PREFERRED OPTION: Built Environment Program Standards

To facilitate integration of the multiple health outcomes associated with the built environment, we suggest creating a separate chapter of Built Environment Program Standards that links program areas.

Move away from individual behaviour change and move towards more of a stronger focus on addressing the determinants of health and creating supportive environments through healthy public policy and other health promotion approaches. We propose the following as it reflects the current knowledge on the impact of a person's environment on health versus the importance of individual behaviour change.

Consider the inclusion of the following concepts:

Societal Outcomes:
- An increased proportion of the population lives in healthy urban and rural community environments that contribute to positive physical, social, and mental health outcomes.

Board of Health Outcomes:
- The Board of Health uses a Health in All Policies approach to ensure policy makers and cross-sector partners have knowledge and perspectives to address population health issues and health inequities associated with the built environment.
- The public is aware of factors associated with the built environment that affect health and health inequities.

Assessment and Surveillance Requirements could include:
- Readiness assessment for policy development
- Climate change risk assessments

- Assessments of public health impacts of regional/municipal policies associated with land use and transportation, including, but not limited to, official plans and transportation plans.

Health Promotion and Policy Development Requirements:

The board of health shall increase public awareness of the built environment factors associated chronic disease, acute illness, infectious disease, prevention of injury and exposure to health hazards within the following topics:
- Indoor air quality;
- Outdoor air quality;
- Extreme weather;
- Climate change;
- Exposure to radiation;
- Physical activity;
- Access to healthy food;
- Road safety;
- Health equity;
- Mental health;
- Other topics, as emerging health issues arise.

The board of health shall build partnerships across sectors to address built environment determinants associated with chronic diseases, acute illness, infectious disease, prevention of injury and exposure to health hazards regarding the following topics:

- Neighbourhood and community design
- Healthy, safe and affordable housing
- Access to and preservation of natural environments
- Sustainable and accessible transportation
- Regional and local food systems
- Adaptation to climate change

The board of health shall work with municipalities to support the development of healthy public policies and the creation or enhancement of supportive built environments regarding the following topics:
- Neighbourhood and community design
- Healthy, safe and affordable housing
- Access to and preservation of natural environments
- Sustainable and accessible transportation

- Regional and local food systems
- Adaptation to climate change

ALTERNATIVE OPTION: INCORPORATING BUILT ENVIRONMENT WITHIN EXISTING PROGRAM STANDARDS

Specific Recommendations:

These are examples of how BE and HIAP could be incorporated into four sections. There are other opportunities within the OPHS that we would be happy to expand upon:

1. Foundational Standards:
   Board of Health Outcomes:
   - Add a bullet on using HIAP approach to support effective public health practise.

     - Within the Population Health Assessment requirements #3:
       o The board of health shall use population health, determinants of health and health inequities information to assess the needs of the local population, including the identification of populations at risk, to determine those groups that would benefit most from public health programs and services (i.e., priority populations[3]).
       We suggest:
       - Including wording that speaks to actions on HIAP by incorporating this lens when engaging in cross-sector partnership.
       - Add another point under KDE which states that "shall engage in a HIAP approach with a number of relevant stakeholders."

Chronic Disease and Injuries Standard:

2. Chronic Disease Prevention:
   It's important to get away from individual behaviour change and move towards more of a focus on supportive environments within the BOH outcomes. Research indicates that strategies using a more 'upstream' approach such as creating supportive policies and environments are effective ways improve population health, as well as being a more impactful use of public health capacity and resources. The following revisions reflect the growing body of evidence that indicates greater impact on population health by improving the environment in which people live, versus a focus solely on changing individual behaviour.

Under Societal Outcomes:

4th bullet currently reads: *"Community partners have the capacity to address the risk factors associated with chronic diseases, including poor diet, obesity, tobacco use, physical inactivity, alcohol misuse, and exposure to ultraviolet radiation."*

Change to read instead: *"Community partners have the capacity to address population level issues associated with chronic diseases such as the food environment, natural and built environments (including neighbourhood and community design), housing, access to transportation and income."*

Under Board of Health Outcomes:

2nd bullet currently reads: *"There is increased awareness among community partners about the factors associated with chronic diseases that are required to inform program planning and policy development, including the following:*

- *Community health status;*
- *Risk, protective, and resiliency factors; and*
- *The importance of creating healthy environments."*

Add to third bullet above: *"...both built and natural".*

4th bullet currently reads: *"The public is aware of the importance of healthy eating, healthy weights, comprehensive tobacco control, physical activity, reduced alcohol use, and reduced exposure to ultraviolet radiation."*

Add at the end: *"...and the impact of the built environment on health."*

Under Requirements

#6 currently reads: *"The board of health shall work with municipalities to support healthy public policies and the creation or enhancement of supportive environments in recreational settings and the built environment regarding the following topics:*

- *Healthy eating;*
- *Healthy weights;*
- *Comprehensive tobacco control;*
- *Physical activity;*
- *Alcohol use; and*
- *Exposure to ultraviolet radiation."*

Change to read instead: *The board of health shall work with municipalities to support healthy public policies and the creation or enhancement of supportive environments for creating healthy built environments regarding the following topics:*

- *Healthy, safe neighbourhood and community design*
- *Safe and affordable housing*
- *Recreational settings*
- *Access and preservation of natural environments*
- *Sustainable and accessible transportation*
- *Regional and local food systems*
- *Comprehensive tobacco control*
- *Exposure to ultraviolet radiation*
- *Exposure to contaminants in the environment*
- *Access to alcohol.*

#11 - *"The board of health shall increase public awareness in the following areas:..."*

Add additional point: *"The impact of the built environment on health"*

3. Injury Prevention Standards

Areas in this program standard that are influenced by the built environment include on- and off-road safety and prevention of falls across the lifespan. Work being done by public health on active transportation encompasses on-road safety as well as physical activity (CDP). Many health units are engaged in age-friendly work, which addresses falls prevention. The built environment can be more explicitly identified in this program area.

Board of Health Outcomes

2nd bullet point reads: *"There is an increased awareness of community partners about the factors associated with injury and substance misuse required to inform program planning and policy development, including the following:*

- *Community health status;*
- *Risk, protective, and resiliency factors; and*
- *Impact."*

Add another point: *"The impact of the built environment"*

To the overall list, add another bullet point:

"the public is aware of the impact of the built environment on preventing injuries"

Requirements

To both # 1 and #2 - add point: *"Healthy, safe neighbourhood and community design"*

In #2: "The board of health shall work with community partners, using a comprehensive health promotion approach, to influence the development and implementation of healthy policies and programs, and the creation or enhancement of safe and supportive *built and other* environments that address the following:..."

4.   Health Hazard Prevention and Management* Program Standard

(Note: We support the MOHLTC proposal to rename the Health Hazard Program Standard the "Healthy Environments Standard")

As it currently exists, the Health Hazard Prevention and Management (HHPM) Program Standard requires boards of health to increase awareness and support policy development related to the built environment, indoor and outdoor air quality, climate change, and extreme weather events. Several risk factors associated with these areas are related to the built environment e.g. exposure to air pollution and extreme heat. While several health units are working to influence policy in these areas, the proposed Healthy Environments standard should be enhanced to provide clearer guidance directed to the built environment and land-use planning, for example:

(Air Quality; Climate Change):

- Encouraging "walkable" and transit-supportive development patterns to reduce vehicle-related air pollution and greenhouse gas emissions that contribute to climate change;
- Encouraging alternative energies to improve air quality & reduce GHG emissions;

(Air Quality; Climate Change; and Safe Water):

- Encouraging green building standards to improve air quality, reduce GHG emissions and conserve water supplies

(Air Quality):

- Encouraging and supporting policies that ensure that sensitive land uses such as residential developments, schools and daycares are adequately separated from land uses such as factories, quarries, generating stations, and high volume roadways that can be associated with elevated levels of air pollution;

(Climate Change):

- Encouraging development that is adaptive to the impacts of climate change and actions, based on the principles of improving health equity, that address the vulnerabilities of populations to the impacts of climate change;
- Encouraging building and neighbourhood design that reduces exposure to extreme temperatures e.g. natural and built shade structures, solar orientation of buildings to maximize the amount of heat gained during the coldest months and minimize the amount of heat gained

(Indoor Air Quality)

- Supporting evidence on health impacts of various indoor environmental health conditions and the linkages between social determinants of health, healthy housing and health outcomes
- Encouraging partnerships with other government and community agencies to ensure the provision of healthy housing for all

(Safe Water)

- Ensuring that water supplies are safe and protected (drinking water sources and recreational waters).
- Encouraging low-impact development that reduces stormwater run-off and protects both surface and groundwater sources

In order to emphasize the promotion of health and not just the absence of disease, the following additions (underlined) are recommended under the HHPM/proposed Healthy Environments Standard for Societal and Board of Health Outcomes:

Societal Outcomes

- There is reduced incidence of adverse health outcomes from exposure to chemical, radiological, biological, and other physical factors in the environment.
- There is reduced public exposure to health hazards.
- There is increased capacity on the part of the public and community partners to address the risk factors that reduce health hazard exposure and diseases and support healthy environments.
- There is increased public engagement in practices and activities that reduce exposure to hazardous conditions and factors, and protect the environment, and support healthy environments.

- There is increased community partner participation in developing local policies and programs that address the risk factors associated with health hazard exposure and diseases <u>and support healthy environments</u>.

Board of Health Outcomes

- The board of health achieves timely and effective detection and identification of exposures of human health concern and associated public health risks, trends and illnesses.
- The board of health is aware of and uses epidemiology to influence the development of healthy public policy and its programs and services to reduce or eliminate the burden of illness from health hazards in the environment <u>and support healthy environments</u>.
- The public is aware of health protection and prevention activities related to health hazards and conditions that create healthy environments.
- Community partners have the information necessary to create healthy public policies related to reducing exposure to health hazards <u>and supporting healthy environments</u>.
- The public and community partners are aware of health hazard incidents and risks in a timely manner.

The existing HHPM Standard requires boards of health to increase public awareness of health risk factors associated with the following health hazards:
- Indoor air quality;
- Outdoor air quality;
- Extreme weather;
- Climate change;
- Exposure to radiation; and
- Other measures, as emerging health issues arise.

The existing HHPM Standard also requires boards of health to assist community partners to develop healthy policies to reduce exposure to health hazards in areas including but are not limited to:
- Indoor air quality;
- Outdoor air quality;
- Extreme weather; and
- Built environments.

It is recommended the Healthy Environments Standard broaden the above environmental health topics to include:

- <u>healthy housing</u>, recognizing the linkages between the social determinants of health and access to safe, healthy and affordable housing
- <u>extreme heat and extreme cold</u>, recognizing that extreme weather events can have multiple impacts on chronic diseases, acute illnesses and, infectious diseases
- <u>protection and enhancement of natural environments</u>, recognizing the important role of ecosystem health, greenspace and biodiversity in protecting human health
- <u>sustainable transportation systems</u>, recognizing the impact of traffic-related air pollution on human health, the major contribution of transportation emissions to overall emissions (air pollutants and greenhouse gases)
- the impact of <u>noise</u> on human health
- the impact of <u>other contaminants</u> in the environment e.g. soil
- <u>Reducing health inequalities</u>, recognizing that a poorly built environment is a risk factor for adverse health outcomes is an important step towards addressing health inequities

BUILD CAPACITY FOR SUCCESS

In order for public health units to effectively address these requirements they need to be adequately supported with necessary guidance and resources. We recommend that:

1) There needs to be a link between each outcome associated with the BE and a corresponding accountability indicators. Many PHUs prioritize work based on accountability indicators. Without these indicators the work is often not as well supported as it should be. APHEO has a set of BE indicators that could potentially be leveraged, acknowledging that more work needs to be done to develop feasible indicators in some areas such as the influence of the natural and built environment on exposure to environmental health hazards. The early adoption of process indicators could include:
   a. Number of cross sector partners working toward improvements in the built environment.
   b. Number of policies that public health is actively involved in and or has partnered with municipalities on developing.
   c. Number of reviews and provision of comments to official plans and other strategic documents and plans that address the built environment to which public health is impacted
2) Health Units need to be well resourced as this is an issue is foundational to improving the health of the population. Dedicated funding to build partnerships and internal capacity is critical.

3) The round table for the development of a protocols related to the built environment be re-established to assess the need specific procedures related to the built environments.

4) A connection needs to be established with professional planners, and PHUs should be empowered to leverage their work on sustainability and healthy communities. Much has been accomplished in this and can be complemented by shared language in the OPHS.

5) Include a glossary of term in the OPHS that clearly defines concepts and terms, including those related to the built environment. Currently the built environment is included in the definition of "Environment" in the Identification, Investigation, and Management of Health Hazards Protocol, and should be expanded.

The above recommendations are evidence based and the Built Environment Working Group can provide a list of references if required.