



Ontario Public Health Association

l'Association pour la santé publique de l'Ontario

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**Presentation to Ontario's  
Standing Committee on  
General Government  
*Bill 4 Cap and Trade  
Cancellation Act, 2018***

**October 17, 2018  
(Updated from October 15, 2018  
Testimony)**

Good afternoon Mr. Chairman and committee members. Thank you for the opportunity to appear today. My name is Pegeen Walsh and I am Executive Director of the Ontario Public Health Association.

The Ontario Public Health Association, or OPHA, is a non-profit, non-partisan organization that brings together those from public and community health, academic, voluntary, and private sector who are committed to improving people's health. That is why I am here today. Climate change is much more than an environmental problem – it poses a serious public health challenge and indeed Ontarians are already experiencing the direct and indirect health impacts.

Many of our members are working on the front lines to promote and improve health and wellbeing in their communities from conducting climate change health impact assessments to promoting the development of environments that mitigate climate change risks. I'm pleased to be sharing with the committee the perspective of OPHA's Environmental Health Workgroup.

I'd like to focus my remarks on the health implications of Bill 4 as well as the areas we support, those of concern and new areas to consider.

### **1. Areas of Support:**

OPHA supports the provisions of Bill 4 that require:

- the Minister to prepare a climate change plan;
- that this plan include targets and be made publicly available;
- the appointment of a ministerial advisory panel; and
- the protection of existing Aboriginal and treaty rights.

### **2. Areas of Concern:**

We are concerned that this Bill is being putting forward before a new plan is in place. We urge the government to move quickly to do so given the implications for Ontario's health and wellbeing.

Over a decade ago, the then head of the World Health Organization identified climate change as “the defining issue for public health during this century.”

### **Climate change is increasing health risks to Ontarians**

Public health professionals are tracking troubling climate-related changes to Ontarians' health. I would like to highlight six areas that have been documented by Ontario's Ministry of Health and Long-term Care as they are not widely known or understood. Allow me to briefly explain.

## **Infectious Diseases**

Ontarians are at risk of infectious diseases such as Lyme disease and West Nile virus through their transmission by mosquitoes and ticks. Hot summers and shorter winters have created a longer transmission season<sup>1</sup> allowing these viruses to move further north; this is resulting in more people being exposed. For example, there's been a six-fold increase in the number of reported Lyme disease cases in Canada over the last eight years (i.e. from 144 cases in 2009 to 917 in 2015), and a ten-fold increase in reported cases in Ontario over the last six years (from 2009 to 2015 cases of Lyme Disease in Ontario have increased from around 30 cases per year, to more than 300 cases per year).<sup>2</sup> Black-legged ticks carrying Lyme disease are showing up in parts of Canada where they haven't been seen before.<sup>2</sup> Children between 5 and 9 are particularly vulnerable and, if not treated, the disease can last years, leading to arthritis, paralysis, and death.<sup>2</sup>

## **Air Quality**

Ontario's health is also being affected by changes in air quality from climate change. This can result in:<sup>1</sup>

- Eye, nose, and throat irritation, and shortness of breath
- Exacerbation of respiratory conditions
- Chronic obstructive pulmonary disease and asthma
- Increased risk of cardiovascular diseases (e.g. heart attacks and ischemic heart disease); and
- Premature death

We are seeing changes in air quality from increased air pollution from higher levels of ground-level ozone and airborne particulate matter, including smoke and particulates from wildfires.<sup>1</sup> The Government of Canada estimates that 14,400 premature deaths per year in Canada can be linked to air pollution.

We are seeing allergy symptoms and respiratory conditions are being aggravated due to increased pollen and spore production as summer temperatures increase and the winters become shorter.<sup>1</sup>

A 2014 report by the Medical Officers Of Health of the Greater Toronto-Hamilton Area estimated 700 to 1,000 annual premature deaths and 2,800 to 4,000 hospitalizations due to traffic-related emissions in the Greater Toronto Hamilton Area.<sup>3</sup>

## **Water and Foodborne Diseases**

Another area of concern is water and foodborne diseases. Heavy rainfall can lead to increased contamination of drinking and recreational water.<sup>1</sup> Climate change can also induce changes in marine environments that result in algal blooms and higher levels of toxins from fish and shellfish.<sup>1</sup> Behavioural changes with warmer temperatures can result in an increased risk of water and foodborne infections (e.g. through longer BBQ and swimming seasons.)<sup>1</sup>

Increased risk of food and waterborne illnesses can increase the possibility of injury, illness or loss of life due to damage and weakening of infrastructure from extreme weather events such as flooding, ice and windstorms. Food or water shortages, and illnesses related to drinking water contamination can result in significant health impacts.

## **Mental Health**

There are also mental health impacts associated with climate disasters: research currently being conducted at the Intact Centre on Climate Adaptation suggests there's a direct relationship between household flooding and the elevated use of anti-depressants.<sup>4</sup> A recent report from that Centre also found that flooded household members experienced significantly higher worry and stress levels that continued years after a flood event, flooded household members were forced to take days off work due to flooding, ten times the number of days compared to non-flooded households in Ontario.<sup>4</sup>

The Canadian Life and Health Insurance Association estimated that it paid over \$32.2 billion in health benefits in 2015 (e.g. for medications, visits to health services such as doctors, hospitals and therapists and counsellors). Given the health impacts of flooding and other extreme weather events, these costs are expected to rise.

## **Extreme Heat**

Environment Canada forecasts that many cities in Canada can expect a substantial increase in the number of days with temperatures exceeding 30°C (86°F) - levels that are dangerous to human health.<sup>5</sup>

In 2012 there were 1,400 emergency department visits due to exposure to natural heat in Ontario, and from 2003 to 2009 there were 203 deaths due to extreme weather.<sup>6</sup> Every year in Toronto, an average of 120 people die from extreme heat.<sup>5</sup> In Quebec, a July heat wave claimed the lives of over 90 people in one week.<sup>7</sup>

The recent release of the United Nations Intergovernmental Panel on Climate Change Special Report, Global Warming of 1.5°C, stressed the drastic need to reduce carbon emissions, noting that increases in temperature above 1.5°C to 2°C would increase the risk to human health from vector borne diseases and extreme heat.<sup>8</sup> Furthermore, the Special Report also noted Ontario is experiencing more warming than the world average. Ontario summer temperatures are up by 1.0°C since 1901; winter temperatures have increased twice as fast and are now 2.2°C warmer.<sup>8</sup> Ontario is likely to continue to warm faster than the world average. As Ontario's average temperature continue to rise, extreme events will also become more common. We will experience milder winters, wetter springs, faster melts, hotter, drier summers, storms, floods, droughts, forest fires and invasive species.

## **Biodiversity**

The integrity and health of the ecosystems on which all species rely is under threat from climate change and extreme weather events. A 2017 report prepared by EcoHealth Ontario for the

Ontario Biodiversity Council describes conserving biodiversity as a public health imperative. The report outlined the impacts of climate change on human health and well-being. Climate change threatens Ontario's biodiversity, which if retained, would improve Ontario's resilience and adaptability to climate change.<sup>9</sup> Biodiversity conservation can support health promotion and preventive health care.<sup>9</sup>

### **Health Implications**

Costs to the health care system from these and other climate related health impacts will continue to increase unless urgent action is taken to mitigate and adapt to climate change. We're especially concerned that climate change may worsen existing health inequities by increasing the health burden on already vulnerable groups such as children, seniors, the chronically ill, low income and homeless, and disabled people.

It is critical that we act now to take steps to build a low-carbon economy and get ready to adapt to climate change. That is why OPHA is calling on the Ontario Government to take immediate action in the form of strong policy, effective programs and a financial commitment to protect the health of all Ontarians from the impacts of climate change.

### **Economic Implications**

The World Health Organization (WHO) has developed an economic analysis tool to support estimating costs associated with climate change, costs of adaptation in various sectors to protect health in the face of climate change, and the expected efficiency (i.e. averted health costs) associated with adaptation.<sup>10</sup> The necessity for such a tool signifies the threat that climate change poses, not only to health but also to economic progress. Estimating the public health costs associated with climate change requires consideration across a broad range of sectors. Cost estimates for climate change-associated mortality, healthcare, and productivity loss must all be included.

The Government of Canada estimates that air pollution costs the Canadian economy billions of dollars per year in healthcare costs, lost productivity costs and risk of premature death.<sup>11</sup>

A recent report by The Economic Case for Climate Action in the United States estimates that weather events influenced by climate change and health damages resulting from air pollution cost the United States economy \$240 billion annually.<sup>12</sup> Further, the report estimates that carbon pricing could generate \$200 billion in revenue that could be reinvested into promoting more efficient energy use and reduction of emissions.<sup>12</sup>

### **Co-Benefits**

There is an opportunity to invest in initiatives that can reduce carbon emissions and the negative health impacts of climate change while at the same time contribute to health improvements. Examples include:

- increasing infrastructure that encourages active transport; this can lead to Ontarians being more physical activity thus reduced the health consequences (e.g. obesity and type-2 diabetes, reduced cardiovascular disease and some types of cancers, and reduced depression ) resulting from physical inactivity.<sup>13</sup>
- retrofitting older, low-income housing can help reduce energy consumption and enable healthy indoor air and temperatures thus reducing the risk of heat-related illness, respiratory infections, stroke, asthma, allergies and respiratory diseases, and improved mental health; and
- reducing vehicle use and emissions through designing communities that have increased density, and mixed-use development and promote access to healthy local food.

### **3. Recommendations:**

OPHA urges legislators to reconsider Bill 4 and support a carbon pricing program, along with other programs that can further climate change goals.

There is broad global consensus that some form of carbon pricing is the most effective way to reduce greenhouse gas emissions and at the same time, drive a clean productive economy. This conclusion was reinforced by the awarding this month of the Nobel Prize for Economics to William Nordhaus for his decades long work on climate change and the value of using price to reduce carbon emissions.

OPHA is troubled by the loss of \$2.9 billion in Ontario funds (raised through cap and trade) and the \$1.9 billion that had been directed towards programs that further reduced greenhouse gas emissions – programs related to public transit, energy efficiency, renewable energy projects, energy retrofits at hospitals, social housing and schools, and active transportation, including cycling infrastructure.

As Bill 4 proceeds through the legislative process, OPHA strongly urges the Provincial Government to:

- quickly take action by investing in and funding solutions to climate change in Ontario;
- establish a strong climate change policy with clear actions to both mitigate and adapt to climate change, that considers the current and long-term impacts of action on our health, our environment and our economy;
- set aggressive GHG reduction targets that show Ontario as a leader in both combating climate change and advancing innovation that will lead us into a sustainable and prosperous future;
- regulate, incentivize, and encourage GHG emission reductions, through evidence-based solutions such as carbon pricing, while ensuring that polluters pay, that innovative sustainable technologies are supported across Ontario, and that our most vulnerable populations (e.g. low-income Ontarians) are not only protected but benefit, either through tax breaks, rebates or other mechanisms; and
- report annually on the progress of the government's climate change policy, in terms of GHG emission reductions relative to targets established, measures, actions and programs to adapt to climate change, and supports provided to vulnerable Ontarians.

OPHA believes that climate change is one of the greatest public health challenges of our century and it is imperative to act now. We appreciate that many Ontarians are concerned about the future of our environment yet cannot readily identify the health impacts. We would be pleased to work with the government on a public education campaign so that Ontarians can better understand the health implications, how they can protect themselves and their loved ones, and steps they can take to reduce their carbon emissions.

### **Truth and Reconciliation:**

As an organization committed to Truth and Reconciliation, OPHA encourages legislators to engage with Indigenous leaders and their communities in a way that is meaningful for them in regards to climate change legislation and policy.

In conclusion, we urge your committee to consider the additional measures we have highlighted today. Thank you for giving me the opportunity to convey our recommendations.

Pegeen Walsh, Executive Director, OPHA

### **About OPHA**

*Created in 1949, the Ontario Public Health Association (OPHA) is a non-partisan, non-profit organization that brings together a broad spectrum of groups and individuals concerned about people's health. OPHA's members come from various backgrounds and sectors - from the various disciplines in public health, health care, academic, non-profit to the private sector. They are united by OPHA's mission of providing leadership on issues affecting the public's health and strengthening the impact of people, who are active in public and community health throughout Ontario. This mission is achieved through professional development, information and analysis on issues affecting community and public health, access to multidisciplinary networks, advocacy on health public policy and the provision of expertise and consultation.*

*OPHA members have been leading change in their communities on a wide range of issues - tobacco control, poverty reduction, diabetes prevention, increased access to oral health care, immunization, supporting children and families, food security, healthy eating and nutrition, climate change and designing walkable communities, among others.*

### **References cited**

- (1) Ontario climate change and health vulnerability and adaptation assessment guidelines Technical Document, MOHLTC Queen's Printer for Ontario, 2016  
[http://www.health.gov.on.ca/en/common/ministry/publications/reports/climate\\_change\\_toolkit/climate\\_change\\_health\\_va\\_guidelines.pdf](http://www.health.gov.on.ca/en/common/ministry/publications/reports/climate_change_toolkit/climate_change_health_va_guidelines.pdf) (p21-22)
- (2) Gasmi S, Ogden NH, Lindsay LR, Burns S, Fleming S, Badcock J, Hanan S, Gaulin C, Leblanc MA, Russell C, Nelder M, Hobbs L, Graham-Derham S, Lachance L, Scott AN, Galanis E, Koffi JK. Surveillance for Lyme disease in Canada: 2009–2015. Can Commun Dis Rep. 2017;43(10):194-9. <https://doi.org/10.14745/ccdr.v43i10a01>

- (3) Medical Officers of Health in the GTHA. Improving Health by Design in the Greater Toronto-Hamilton Area. Published May 2014. Retrieved from: <https://www.peelregion.ca/health/resources/healthbydesign/pdf/moh-report.pdf>.
- (4) Milojevic A, Armstrong B, Wilkinson P. Mental health impacts of flooding: a controlled interrupted time series analysis of prescribing data in England. *J Epidemiol Community Health* 2017;**71**:970-973 & After the Flood: the Impact of Climate Change on Mental Health and Lost Time from Work, Dana Decent and Dr. Blair Feltmate, Intact Centre on Climate Change Adaptation, June 2018
- (5) Government of Canada. Communicating the Health Risks of Extreme Heat Events. Updated August 7, 2018. <https://www.canada.ca/en/health-canada/services/environmental-workplace-health/reports-publications/climate-change-health/communicating-health-risks-extreme-heat-events-toolkit-public-health-emergency-management-officials-health-canada-2011.html>.
- (6) Public Health Ontario. Extreme Weather infographic. Published Jan 8, 2015. [https://www.publichealthontario.ca/en/erepository/OHP\\_infog\\_extremeweather\\_2014.pdf](https://www.publichealthontario.ca/en/erepository/OHP_infog_extremeweather_2014.pdf)
- (7) Government of Quebec. Montreal Preliminary Report (in French.) 2018. [https://santemontreal.qc.ca/fileadmin/fichiers/actualites/2018/07\\_juillet/bilancanicule2018vf.pdf](https://santemontreal.qc.ca/fileadmin/fichiers/actualites/2018/07_juillet/bilancanicule2018vf.pdf)
- (8) Intergovernmental Panel on Climate Change. Global Warming of 1.5°. 2018. <http://www.ipcc.ch/report/sr15/>.
- (9) Morrison, K., S. Elton, S., S. Chen, and C. Ngo. 2017. Biodiversity Conservation as a Health Sector Imperative. Toronto: Eco-health Ontario.
- (10) WHO Regional Office for Europe. 2013. Climate change and health: a tool to estimate health and adaptation costs.
- (11) Government of Canada. Air pollution: drivers and impacts. Updated August 9, 2018. <http://www.ec.gc.ca/indicateurs-indicators/default.asp?lang=En&n=D189C09D-1>
- (12) Universal Ecological Fund US. Information for Climate Action. Updated 2018. <https://feu-us.org>
- (13) Health Benefits of a Low-Carbon Future Prepared by IndEco Strategic Consulting Inc. for Toronto Public Health, July 2016