

## Environmental Determinants of Health

**RNAO believes that an effective carbon pricing system is necessary if Ontario wants to meet or exceed its carbon emission targets. Will you ensure that the province's cap-and-trade program is sufficiently comprehensive and ambitious so that the province can reach its greenhouse gas emission targets, while protecting vulnerable populations?**

**RNs, NPs, and nursing students know that new dedicated and sustainable revenue sources are needed to pay for the operation and expansion of transit and active transportation across Ontario. Do you agree with us?**

### Carbon Pricing and Climate Change

Climate change is real and happening today, not in the distant future. It is the result of human activity that increases the volume of greenhouse gases (GHGs) in the air. This activity has radically changed the composition of the atmosphere. The carbon dioxide concentrations have risen steadily since the start of the industrial era, when they were about 280 ppm.<sup>1</sup> Recent estimates have put concentrations over 400 ppm (404.48 ppm globally in December 2016, up from 401.85 in December 2015).<sup>2</sup> That is a 44 per cent increase. The jump is unprecedented and the levels of carbon in the air far exceed those at any time in the last 800,000 years.<sup>3</sup> This is alarming. When other GHGs besides CO<sub>2</sub> are factored in, the increase is even more worrisome – by one estimate, the rise was 70 per cent between the start of the industrial era and 2012 alone.<sup>4</sup>

Registered nurses, nurse practitioners and nursing students are concerned about climate change because of its serious environmental and health implications. Already we are seeing severe dislocation in places like the Horn of Africa in part due to weather disturbances (e.g., drought). However, climate change also affects Ontarians' health by contributing to extreme weather events, poor air quality, and vector-, rodent-, food- and water -borne diseases. By fighting global warming, we are not merely protecting the environment - we are protecting people's health. And we would be contributing to environmental justice, because the most vulnerable populations are the poorest in both Canada and developing countries. These are the people who have done the least to cause global warming. Carbon reduction programs have benefits that go beyond getting rid of pollutants. For example, the closure of Ontario's coal-fired power plants not only reduced carbon emissions, it also improved air quality. Another example would be the creation of

walkable, bikeable communities, which would both reduce emissions and also improve health through promotion of exercise.

Ontario has taken significant steps to reduce its carbon emissions, including the above-mentioned coal closures and the promotion of energy conservation and renewable energy. It has set greenhouse gas (GHG) reduction targets of 15 per cent below 1990 levels by 2020, 37 per cent by 2030<sup>5</sup> and 80 per cent below by 2050.<sup>6</sup> The targets are aggressive, but necessary. Economists generally agree pricing carbon emissions can help in meeting those targets. We are all carbon users, and a strong price signal will promote necessary behaviour changes to support the environment. The government is implementing a cap-and-trade system to price carbon. That works by auctioning permits to emit carbon, with a cap on the number of permits set to meet Ontario's emission targets. RNAO had recommended a carbon tax as a simpler and more efficient way to price carbon, but a cap-and-trade system can work as long as it:

- sets a low enough cap,
- starts soon enough, and
- covers as much of the emissions as possible.

The government intends to proceed with a cap-and-trade program in 2017 that would cover the bulk of emissions (including electricity, transportation fuel, industry, large commercial and institutions). The timing is reasonable, and the coverage is good for a first phase. The cap could be much more aggressive, as the proposal would allow for significant growth in emissions between 2015 and 2017. More troubling, the proposal is to give industrial and institutional emitters 100 per cent of their permits for free for the first four years. The intent is in part to avoid "carbon leakage" from emitters shifting production out of Ontario to avoid paying for the fees. But that is not necessary when the low Canadian dollar gives them such a competitive advantage. In any case, the government should pursue all opportunities to provide levelling of the playing field by seeking to implement border adjustments (e.g., imposing taxes on imports equivalent to the carbon prices faced by Ontario firms).<sup>7</sup>

The government recently took a step back on carbon pricing by announcing it would take the Harmonized Sales Tax (HST) off of residential and small business electricity bills.<sup>8</sup> Certainly it makes sense to offer support to families suffering from energy poverty, but it is not helpful to remove the price signal from other users of electricity. It would be better to help consumers find more ways to conserve on energy.

The government took a further step back by cancelling \$3.8 billion in renewable energy projects in September 2016, in part to save on cost.<sup>9</sup> Environmental critics like the David Suzuki Foundation pointed out that it would be cheaper to use more renewable energy and less nuclear energy.<sup>10</sup>

RNAO is asking the government to:<sup>11 12</sup>

- Set the carbon cap at a level that would deliver GHG reductions on the targeted schedule or earlier.

- Only link to other cap-and-trade markets when that maintains Ontario standards
- Make the granting of free or subsidized emission permits highly targeted and temporary. The current proposal is neither
- Manage cap-and-trade revenues transparently with strong public oversight.

### Transit and Active Transportation

Automobiles are a major source of pollution, particularly in urban environments. When added to congestion costs, the bill comes to billions of dollars. For example, in the Greater Toronto and Hamilton Area (GTHA), the cost in 2006 alone was estimated at \$3.3 billion to commuters and \$2.7 billion in lost economic opportunities.<sup>13</sup> For many in urban areas, there are limited alternatives to automobile use: public transit is often inadequate and opportunities for active transportation like biking and walking may be undeveloped and unsafe. The Big Move is the regional transportation plan developed by Metrolinx, an Ontario crown agency that manages GTHA transportation,<sup>14</sup> which would transform transit in the GTHA. The Anne Golden panel has pointed the way with its transit infrastructure recommendations, which include \$300 million funding for a Kick-Start Program to deliver immediate visible improvements in service.<sup>15</sup> The medical officers of health for the GTHA have made an important contribution with their report on designing healthier transportation systems and healthier cities.<sup>16</sup> The report concluded that better community design and implementing *The Big Move* could avoid 338 premature deaths per year and significantly reduce the staggering cost of congestion. It recommended that Ontario should provide long-term funding, work with Metrolinx and the municipalities to implement and optimize access to transportation options and change its policies to better support active transportation and public transit.

All levels of government have stepped up to the plate. A recent report<sup>17 18</sup> concluded that provincial (\$31 billion), municipal (\$1.9 billion) and federal (\$6.5 billion) governments had committed \$39.3 billion for transit capital funding. This is a significant step forward, but a further \$28.8 billion is required to complete the transit expansion for the GTHA planned for under the Big Move,<sup>19</sup> the regional transportation plan for the Greater Toronto and Hamilton Area. After funding, the next steps are: to promote transparency and accountability in governance of project choice and implementation; to support optimal choice of transit and active transportation projects (cycling, walking, etc); and to support expeditious implementation of those projects. The government has devoted part of the proceeds of the sale of Hydro One to transit, but this is not a sustainable strategy, as Ontario's Financial Accountability Officer pointed out: it will be a net revenue loser.<sup>20</sup> RAO cautions against privatization of Hydro One not only on grounds of revenue loss, but also because turning Hydro One to private purposes could result in: unfairly high rates for consumers; the loss of accountability and oversight; the loss in ability to ensure adequate services in smaller communities; and the loss of the ability to serve other social purposes like local development.<sup>21</sup> It is essential that Ontario develop sustainable new streams of revenue. Pricing carbon is one such revenue stream.

RNAO urges the government to take all necessary steps to:

- Work with federal and municipal partners (starting with a transit summit) to ensure sufficient dedicated and sustainable revenue sources to pay for a substantial expansion and ongoing operation of transit and active transportation,
- Avoid resorting to public asset sales like the privatization of Hydro One to fund transit expansions, and
- Support cost-effective and expeditious delivery of those expansions, implemented by transparent governance and informed expert opinion.

## References:

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- <sup>2</sup> US Department of Commerce. Earth System Research Laboratory. (2015). *Trends in Atmospheric Carbon Dioxide: Recent Global CO<sub>2</sub>*. <http://www.esrl.noaa.gov/gmd/ccgg/trends/mlo.html#mlo>.
- <sup>3</sup> US Environmental Protection Agency. Op Cit. p. 3.
- <sup>4</sup> European Environment Agency. (2015). *Atmospheric greenhouse gas concentrations*. June. <http://www.eea.europa.eu/data-and-maps/indicators/atmospheric-greenhouse-gas-concentrations-4/assessment>. The EEA estimates that the atmospheric concentration of CO<sub>2</sub> equivalents from long-lived GHGs, excluding water vapour, ozone and aerosols, rose from 278 to 472 parts per million between the start of the industrial era and 2012 – a 69.8 per cent increase.
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- <sup>10</sup> Ibid.
- <sup>11</sup> For fuller recommendations, see Registered Nurses' Association of Ontario. (2016). Op. cit.
- <sup>12</sup> Full submission and recommendations at RNAO. (2015). *Cap and Trade Program Design Options: Submission to the Ministry of Environment and Climate Change: EBR Registry Number 012-5666*. [http://rnao.ca/sites/rnao-ca/files/Cap\\_and\\_Trade\\_Program.pdf](http://rnao.ca/sites/rnao-ca/files/Cap_and_Trade_Program.pdf).
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[http://www.metrolinx.com/en/regionalplanning/costsofcongestion/ISP\\_08-015\\_Cost\\_of\\_Congestion\\_report\\_1128081.pdf](http://www.metrolinx.com/en/regionalplanning/costsofcongestion/ISP_08-015_Cost_of_Congestion_report_1128081.pdf).

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<sup>15</sup> Transit Investment Strategy Advisory Panel. (2013). *Making The Move: Choices and Consequences*. <http://www.vivanext.com/files/TransitPanel/TISAP%20Making%20the%20Move,%20Choices%20and%20Consequences%20Full%20Report.pdf>.

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