

Environment

Will you support the development of toxics reduction targets?

Will you strengthen Ontarians' right to know about their exposure to toxics

Nurses know environmental determinants of health play a huge role in our overall health and wellbeing, as evidenced in Ontario^{1,2,3,4} and around the world.^{5,6,7,8} Environmental degradation and climate change are not vague future threats, but actual realities that affect the health of Ontarians. For example, the Ontario Medical Association estimated that there were about 9,500 premature deaths due to smog in 2008,⁹ while the United States Environmental Protection Agency (EPA) estimated its figure to be 200,000 due to particulate matter alone.¹⁰ It is much healthier and more cost effective to prevent pollution: the United States Environmental Protection Agency estimated that the benefits of its *Clean Air Act* alone to outweigh costs by a factor of 30 to one.¹¹ Access to clean air, a safe environment, and reliable and sustainable forms of electricity help preserve our planet and secure the future for our children. Yet, as the Ontario Ministry of the Environment pointed out, Ontario is one of the biggest releasers of toxics in North America.¹² That's why RNAO continues to focus on two key environmental determinants of health: supporting the use of green energy and reducing all exposure to toxics, including toxics in the environment, in homes, in workplaces and in consumer products.

New toxics are being discovered and released on a regular basis, and the public is often unaware of their presence or effects. Concern has been growing about a worrisome class of toxics called endocrine disruptors. These toxics can cause serious health effects, even in very low concentrations and particularly in young children.^{13,14,15,16,17,18} The range of effects are not fully understood, but based on what is known, RNAO calls for extreme caution and tougher protection from the government by:

- Protecting the public's right-to-know about toxics in their environment, homes, workplaces and consumer products, and taking concrete action on issues such as product labelling.
- Committing to aggressive targets for reductions in the use, creation and release of toxics.
- Requiring mandatory substitution of safer alternatives for toxic substances in production processes.
- Establishing an independent academic institute to build capacity for meeting above requirements.

RNAO and other partners hailed the 2009 introduction of Ontario's *Toxics Reduction Act* (TRA) as a first step towards addressing Ontario's dismal record of toxic releases.¹⁹ Modeled on the successful Massachusetts Toxics Use Reduction Act program,²⁰ the Ontario toxics reduction program employs mandatory reporting of creation and use of toxics to stimulate cleaner production. The Minister's annual report documents progress to date,²¹ including public access to data collected under the TRA,^{22 23} and large numbers of firms that committed to at least one toxics reduction plan. From the start, Ontario's

Toxics Reduction Act (TRA) fell short of the Massachusetts model: it lacked targets, mandatory substitution and an independent academic institute. We urge the government to fix these gaps, which greatly weaken the effectiveness of the act. We also urge the government to bring into force sections of the act on: compliance and enforcement; product labelling; toxics regulation; and substances of concern (Section 11, which concerns substances not yet covered under the act. The provincial Ministry of the Environment has a list of at least 155 such substances.²⁴). We further urge the government to use whatever other opportunities to present themselves to reduce Ontarians' exposure to toxics, such as including toxics reduction targets in pending legislation like the *Great Lakes Protection Act*.

The Minister's 2014 mandate letter does offer the following priorities under Safeguarding People From Toxics:

- Working with business, industry and partner ministers to provide Ontarians with better information about chemicals linked with cancer.
- Working with industry, ensure that products on Ontario store shelves such as children's products are as safe as those in the US and the European Union.

References:

¹ Ontario Medical Association. (2008, June 6). *Ontario's Doctors: Thousands of Premature Deaths due to Smog*. Retrieved February 9, 2015 at <http://www.newswire.ca/en/story/355713/ontario-s-doctors-thousands-of-premature-deaths-due-to-smog>.

² Ontario Medical Association. (2005). *The Illness Costs of Air Pollution: 2005-2026 Health & Economic Damage Estimates*. Toronto: Author, 2. Retrieved February 9, 2015 at <https://www.oma.org/Resources/Documents/e2005HealthAndEconomicDamageEstimates.pdf>.

³ Commission for Environmental Cooperation. (2006). *Toxic Chemicals and Children's Health in North America: A Call for Efforts to Determine the Sources, Levels of Exposure, and Risks that Industrial Chemicals Pose to Children's Health*. Montreal: Author, 25. Retrieved February 9, 2015 at www.cec.org/Storage/59/5221_CHE_Toxics_en.pdf. This influential report was cited by the Ontario Ministry of the Environment. (2008). *Creating Ontario's Toxics Reduction Strategy: Discussion Paper*. Toronto: Author, 3. Retrieved February 9, 2015 at

<http://www.ebr.gov.on.ca/ERS-WEB-External/displaynoticecontent.do?noticeId=MTA0MzAy&statusId=MTU1ODkz>

⁴ Muir, T. & Zegarac, M. (2001). Societal Costs of Exposure to Toxic Substances: Economic and Health Costs of Four Case Studies That Are Candidates for Environmental Causation. *Environmental Health Perspectives*. 109 (S6), 885-903. Retrieved February 9, 2015 at

<http://www.jstor.org/discover/10.2307/3454651?uid=2129&uid=2&uid=70&uid=4&sid=21102941290491>.

⁵ Prüss-Üstün, A. & Corvalán, C. (2006). *Preventing disease through healthy environments: Towards an estimate of the environmental burden of disease*. Geneva: World Health Organization, 9. Retrieved February 9, 2015 at http://www.who.int/quantifying_ehimpacts/publications/preventingdisease.pdf.

⁶ World Health Organization. (2013). *Environmental Health*. Retrieved February 9, 2015 at http://www.who.int/topics/environmental_health/en/

⁷ Centers for Disease Control and Prevention. National Center for Environmental Health. (2011). *Environmental Hazards and Health Effects*. Retrieved September 4, 2014 at <http://www.cdc.gov/nceh/ehhe/>

⁸ European Commission. (2012). *Environment and Health*. Retrieved February 9, 2015 at http://ec.europa.eu/research/environment/index_en.cfm?pg=health

⁹ Ontario Medical Association. (2008). *Local Premature Smog Deaths in Ontario*. Retrieved February 9, 2015 from <https://www.oma.org/Resources/Documents/2008LocalPrematureSmogDeaths.pdf>.

¹⁰ Caiazzo, F., Ashok, A., Waitz, I.A., Yin, S., and Barrett, S. (2013). Air pollution and early deaths in the United States. Part I: Quantifying the impact of major sectors in 2005. *Atmospheric Environment*. 79. Pp. 198-208. Retrieved February 9, 2015 at <http://lae.mit.edu/wordpress2/wp-content/uploads/2013/08/US-air-pollution-paper.pdf>.

¹¹ U.S. Environmental Protection Agency Office of Air and Radiation. (2011). *The Benefits and Costs of the Clean Air Act from 1990 to 2020*. April. Retrieved February 9, 2015 at <http://www.epa.gov/cleanairactbenefits/prospective2.html> and http://www.epa.gov/cleanairactbenefits/feb11/fullreport_rev_a.pdf.

¹² Ontario Ministry of the Environment. (2008). *Creating Ontario's Toxics Reduction Strategy*. p. 3. Retrieved February 9, 2015 at http://www.downloads.ene.gov.on.ca/envision/env_reg/er/documents/2008/010-4374.pdf. The document cited North American Commission on Environmental Cooperation, 2006. *Toxic Chemicals and Children's Health in North America*, p.25 as its source (see <http://www3.cec.org/islandora/en/item/2280-toxic-chemicals-and-childrens-health-in-north-america-en.pdf>).

¹³ European Environmental Agency. (2012). *The impacts of endocrine disruptors on wildlife, people and their environments – The Weybridge+15 (1996–2011) report*. Retrieved February 9, 2015 at <http://www.eea.europa.eu/publications/the-impacts-of-endocrine-disruptors>

¹⁴ National Institutes of Health. National Institute of Environmental Health Sciences. (2012). *Endocrine Disruptors*. Retrieved February 9, 2015 at <http://www.niehs.nih.gov/health/topics/agents/endocrine/index.cfm>

¹⁵ Inter-Organizational Programme for the Sound Management of Chemicals. (2012). *State of Science of Endocrine Disrupting Chemicals – 2012*. World Health Organization and United Nations Environment Programme. Retrieved February 9, 2015 at http://apps.who.int/iris/bitstream/10665/78102/1/WHO_HSE_PHE_IHE_2013.1_eng.pdf.

¹⁶ The Endocrine Disruption Exchange. (2013). *TEDX: The Endocrine Disruption Exchange*. Retrieved February 9, 2015 at <http://endocrinedisruption.org/>.

¹⁷ Solomon, G, and Schettler, T. (2000). Environment and health: 6. Endocrine disruption and potential human health implications. *Canadian Medical Association Journal*,63(11), 1471-6. Retrieved February 9, 2015 at <http://www.cmaj.ca/content/163/11/1471.full.pdf>

¹⁸ Natural Resources Defense Council. (1998). *Endocrine Disruptors*. Retrieved February 9, 2015 at <http://www.nrdc.org/health/effects/qendoc.asp>.

¹⁹ RNAO. (2009). *RNAO Submission to the Standing Committee on General Government, Bill 167, Toxics Reduction Act 2009*. Retrieved February 9, 2015 at <http://rnao.ca/policy/submissions/bill-167-toxics-reduction-act>.

²⁰ Massachusetts Executive Office of Energy and Environmental Affairs. (2015). *Toxics Use Reduction Act (TURA) Program Overview*. Retrieved February 9, 2015 at <http://www.mass.gov/eea/agencies/massdep/toxics/tur/toxics-use-reduction-act-tura-program-overview.html>.

²¹ Bradley, J. (2014). *Minister's Report on Toxics Reduction*. Retrieved February 9, 2015 at <https://dr6j45jk9xcmk.cloudfront.net/documents/2530/112-moe-toxicsreductionreport-2014-en.pdf>.

²² Ontario Government. (2015). *Map: Toxics Reduction*. Retrieved February 9, 2015 at <http://www.ontario.ca/environment-and-energy/map-toxics-reduction>.

²³ Ontario Government. (2015). *Toxics reduction: Toxics use and reduction plans data reporting by facility*. Retrieved February 9, 2015 at <https://www.ontario.ca/data/toxics-reduction>.

²⁴ Castrilli, J.F. (2014). *Ontario's Living List -- A Dead Thing?*. Canadian Environmental Law Association. Retrieved February 9, 2015 at <http://www.cela.ca/blog/2014-05-20/ontarios-living-list-dead-thing>.