

Lancet Countdown Report: Tracking Progress on Health and Climate Change

Background

On November 29th, a global research team hailing from 27 academic institutions and inter-governmental organizations, released the 2018 edition of the report, *"Lancet Countdown: Tracking Progress on Health and Climate Change"*.

Released for the first time in 2017, the Lancet Countdown tracks 41 indicators related to the health impacts of climate change, adaptation to climate change, policies to reduce climate emissions, the financial and economic drivers of climate change, and the political and public drivers of climate change.

Global Findings

With data collected from 196 countries, the 2018 report identifies extreme heat as the health impact of greatest concern. The researchers note that global temperatures have been increasing steadily since 1990 with the highest increases in Europe. They found that **157 million more vulnerable people were exposed to heat waves** in 2017 than were exposed

in 2000. Explaining that the hearts, kidneys and livers of people cannot handle temperatures greater than 40 degrees C, the researchers estimated that 153 billion hours of labour were lost to extreme heat in 2017. This is 62 billion hours more than would have been lost in 2000.

The researchers also found increasing rates of insect- or animal-borne diseases in Africa, a downward trend in agricultural yields in 30 countries, and increasing economic losses due to extreme weather events. They report that in 2017, **712 extreme weather events** occurred resulting in **\$326 billion (US funds) in economic losses**; nearly a three-fold increase in economic losses over 2016.

The report concludes that "A lack of progress in reducing emissions and building adaptive capacity threatens both human lives and the viability of national health systems they depend on, with the potential to disrupt core public health infrastructure and overwhelm health services."



Canadian Findings and Recommendations

On the same day, the Lancet Countdown team, working in collaboration with the Canadian Medical Association (CMA) and the Canadian Public Health Association (CPHA), released the second version of the report, ***"Lancet Countdown 2018 Report: Briefing for Canadian Policymakers"***.

Co-authored by CAPE President Dr. Courtney Howard, this brief notes that **extreme heat claimed the lives of at least 90 Canadians** this summer and reports that mean temperatures are increasing across Canada and more people are being exposed to higher temperatures. It recommends the establishment of an integrated surveillance and monitoring system to gather data on heat-related illnesses and deaths, the establishment of heat-response plans, and actions to minimize the urban heat island effect in Canadian cities. It also recommends the integration of climate change and health into the curriculum for all medical and health science faculties.

The brief, which observes that Canada is not yet doing its fair share to reduce its climate emissions, examines the health costs associated with air pollution from energy production and use in Canada. The researchers estimate that chronic exposure to fine particulate (PM2.5) air pollution from human activity in Canada resulted in **7142 premature deaths in 2015**. They attributed: 345 of those deaths to coal-fired power plants, 105 to coal-related industries, 2762 to non-coal industries, 1063 to land-based transportation, and 1282 to the agricultural sector.

The health impacts from this air pollution were valued at \$53.5 billion. The researchers note that many of the actions needed to reduce climate emissions will also reduce air pollution-related health impacts. For example, **Canada's transportation and oil and gas sectors**, which are significant contributors to air pollution, are also responsible for 25% and 26% respectively of all Canada's climate emissions.



The brief recommends that Canada increase its ambition to reduce climate emissions and air pollution in Canada and twin this goal with Just Transition Policies. It also recommends that Canada **phase-out its coal-fired power plants** by 2030, or sooner, with a minimum of two thirds of that power being replaced with non-emitting sources.

The brief also examines the coverage and strength of **carbon pricing in Canada**. It notes that the *2015 Lancet Commission on Climate Change and Health* identified carbon pricing as the “single most powerful strategic instrument to inoculate human health against the risks of climate change...”. The researchers found that, on a global basis, 20% of climate emissions from human activity will be covered by carbon pricing once the Chinese system goes on-line this year. They found that 61% of Canada's climate emissions were captured by provincial carbon pricing systems until Ontario dismantled its cap-and-trade program when the percentage dropped to 42%. They report that **70% of Canada's climate emissions** will be covered by a carbon price when the federal carbon pricing system comes into place in 2019.

The brief recommends that carbon pricing instruments be applied as soon, and as broadly as possible, with pricing increasing gradually and in a predictable manner. It also recommends that a study be conducted to estimate the air pollution-related health benefits associated with carbon pricing.

The brief also examined the **media coverage directed at the health impacts of climate change**. The researchers found that the number of Canadian articles per year that covered climate change and human health dropped from 98 in 2009 to 75 in 2017. They recommend the need to ensure that health organizations are proactively communicating the links between climate change and human health to the public.



Lastly, the brief discusses a few studies that have examined the link between climate change, mental health, and ecological grief, and recommend increased funding for studies directed at the **mental health impacts of climate change**.

Prepared by Kim Perrotta MHSc, Executive Director, CAPE, November 29, 2018

References

The Lancet Countdown on Health and Climate Change, Canadian Medical Association, and Canadian Public Health Association. Lancet Countdown 2018 Report: Briefing for Canadian Policymakers. Prepared by Courtney Howard, MD; Caren Rose, PhD; and Nicholas Rivers, PhD. 2018. Online: <https://cape.ca/wp-content/uploads/2018/11/2018-Lancet-Countdown-Policy-Brief-Canada.pdf>

The Lancet. The 2018 Report of the *Lancet* Countdown on Health and Climate Change: shaping the health of nations for centuries to come. Nick Watts, MA ; Markus Amann, PhD; Prof Nigel Arnell, PhD; Sonja Ayeb-Karlsson, PhD; Kristine Belesova, PhD; Prof Helen Berry, PhD; Timothy Bouley, MD; Maxwell Boykoff, PhD; Prof Peter Byass, PhD; Wenjia Cai, PhD; Diarmid Campbell-Lendrum, DPhil; Jonathan Chambers, PhD; Meaghan Daly, PhD; Niheer Dasandi, PhD; Prof Michael Davies, PhD; Anneliese Depoux, PhD; Paula Dominguez-Salas, PhD; Paul Drummond, MSc; Prof Kristie L Ebi, PhD; Prof Paul Ekins, PhD; Lucia Fernandez Montoya, MSc; Helen Fischer, PhD; Lucien Georgeson, PhD; Delia Grace, PhD; Prof Hilary Graham, PhD; Ian Hamilton, PhD; Stella Hartinger, Peña PhD; Jeremy Hess, PhD; Ilan Kelman, PhD; Gregor Kiesewetter, PhD; Tord Kjellstrom, PhD; Prof Dominic Kniveton, PhD; Bruno Lemke, PhD; Lu Liang, PhD; Melissa Lott, PhD; Rachel Lowe, PhD; Maquins Odhiambo Sewe, PhD; Jaime Martinez-Urtaza; Prof Mark Maslin, PhD; Lucy McAllister, PhD; Prof Slava Jankin Mikhaylov, PhD; James Milner, PhD; Maziar Moradi-Lakeh, MD; Karyn Morrissey, PhD; Kris Murray, PhD; Maria Nilsson, PhD; Tara Neville, MSc; Tadj Oreszczyn, PhD; Fereidoon Owfi, PhD; Olivia Pearman, MEM; David Pencheon, BM; Steve Pye, MSc; Mahnaz Rabbaniha, PhD; Prof Elizabeth Robinson, PhD; Prof Joacim Rocklöv, PhD; Olivia Saxer, MA; Stefanie Schütte, PhD; Jan C Semenza, PhD; Joy Shumake-Guillemot, DrPH; Rebecca Steinbach, PhD; Meisam Tabatabaei, PhD; Julia Tomei, PhD; Joaquin Trinanes, PhD; Nicola Wheeler, MSc; Prof Paul Wilkinson, FRCP; Prof Peng Gong, PhD ;Prof Hugh Montgomery, MD; [Prof Anthony Costello, FMedSci. 2018. Online : https://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736\(18\)32594-7.pdf#](https://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(18)32594-7.pdf#)

308-192 Spadina Avenue | Toronto, Ontario, Canada M5T 2C2
416.306.2273 | www.cape.ca