

# NURSING AND CLIMATE CHANGE

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## THE TIME TO ACT IS NOW!

The Paris climate talks saw a massive mobilisation of the health sector determined to put health on the agenda. The call has been made for all health professionals to heed the call for action. Nurses have the opportunity to take a lead in responding to this call, as nurses in the past have responded to health crisis. We cannot wait to wade in and bring our unique voice and expertise. It starts with each of us now...

**K**nowledge of the ecological determinants of health are not new. For thousands of years, Indigenous peoples have valued the sacred connection between the environment and the physical, emotional, mental and spiritual well being of all living things; what we do to the earth, we do to ourselves. If only we had heeded the advice of these elders. Today we find that basic ecological determinants of health, upon which we depend for

survival, our water, food, soil, and even the air we breathe, are threatened by humankind's manipulation and exploitation of the earth's resources. Who would have thought 100 years ago that nurses would now be dealing with a public health crisis of global proportions? (Lancet, 2009). Nurses have a long history of caring for vulnerable patients and communities affected by poverty and injustice. Inaccessibility to clean water and sanitation, infectious diseases, health and safety concerns related to industrialization and urbanization are some examples of environmental health. The most unfortunate reality of climate change, is that we as humans caused this crisis ourselves, which now affects us and all living things on planet earth. In fact, human influence has so radically changed the very structures and functioning of the planet that we have entered a new epoch that geological scientists are calling the Anthropocene.

Our changing climate is already having multiple effects on our health

and well-being, in both subtle and less subtle ways. These effects are so serious that they risk undoing all the gains in health and development of the last half century (Wang & Horton, 2015). (See separate box for health effects) Direct effects are already more evident in certain segments of the population: in the elderly, those with chronic illnesses or other health challenges, children, pregnant women, and low-income people. Sadly, those who have contributed the least to climate damage are those most at risk: poor populations living in low-lying islands or coastal areas, in the sub-Saharan region of Africa, in countries where storms have devastated their homes and cities. "There may be no greater, growing threat facing the world's children-and their children than climate change. This mounting global crisis has the potential to undermine the gains we have made in child survival and development-and poses even greater dangers ahead" (Unicef, 2015).

In Canada, the Indigenous populations in Northern and remote areas, are those among the greatest risk for health effects from climate change. Their livelihood, and very survival are threatened by changes to their lands, to the wildlife populations, to the quality of their water, food and soil.

The most recent Lancet report (2015) called for collaborative action on climate change by all health professionals. They see climate action as the most important public health opportunity of the 21<sup>st</sup> century because actions taken to mitigate climate change will also have important health benefits. Improving public transport, safe bicycling, and walkable cities will not only reduce carbon, but contribute to a reduction in obesity, and chronic diseases caused by inactivity. The city of Bogota is a case in point, where extraordinary efforts by the city's mayor brought about radical rethink in city transport planning. The

result is not only a reduction in hospital admissions due to traffic accidents, but reduced car traffic, safer cycling, increased use of city bus system and walking.

Increasing studies have demonstrated the importance of greening cities with trees and parks, not only in facilitating active lives, but also in enhancing happiness, well-being and decreasing depression. Alternative energy sources will help reduce fine air particles and increase respiratory health. Agricultural practices that reduce dependence on fossil fuels, improve land use, and move away from large scale meat production will also improve air and water quality, and bring other benefits to health from promoting a less meat-centred diet. Reduced carbon emissions will improve air quality and reduce the risk of cardiovascular, respiratory disease and allergies related to poor air quality and fine particles.

## WHAT NURSES CAN DO

Nurses focus on health of individuals, communities and populations. We understand the unique vulnerabilities of people at risk and we advocate for social justice and health equity. We can support global efforts of adaptation and mitigation of climate change. We can do this through speaking out, education, research, best practice, collaboration, and policy change.

### Personal

Lead by example. Look at your personal life and assess actions you can take: use local public transport options instead of your car; use your bike for short trips instead of driving. Wear extra sweaters in the house and turn down the heat on those cold days; use draft stoppers on doors and windows; turn off lights, unplug electric devices when not in use; reassess your energy use. Pick one do-able thing at time, and go on to another. Join a local initiative working on climate action, or join an online community for ideas on action and organisation. Do your best, keep a sense of humour and optimism. Reducing heat: create shady areas around your home, use curtains or shades on sunny days, plant insect resistant trees. Join your municipality or your neighbours in

planning climate mitigation and adaptation: green or white roofs, walkable streets, trees, parks, cool areas, community gardens, bike paths, public transport; walking groups.

### Professional

Partner with organisations acting on climate change: (See resource list) Talk with your colleagues and get climate action on the agenda. Advocate for social justice and equity regarding health effects and climate change. Speak to local schools and get youth involved in climate initiatives. Teach prevention, signs of and treatments for heat exhaustion, heat stroke, heat cramps, particularly in elderly clients or those with chronic illness. Teach links between medications and heat susceptibility. Teach nursing students how to integrate climate into health assessments and teaching. (See resource list).

Speak with local media about your work. Start a blog, an advice column, speak at your community centres about actions to prevent and cope with climate effects.

### Your Workplace/Health Care Organisation

Join the green team. Ensure the voice of

## HEALTH EFFECTS OF CLIMATE CHANGE

New patterns of vector borne diseases (Lyme disease, malaria, West Nile virus etc.)

Heat stroke, heat exhaustion

Water borne infections and diarrhoeal diseases

Dehydration and malnutrition

Skin diseases, including melanoma

Exacerbation of chronic diseases: allergies, asthma, cardiovascular disease, respiratory disease

Food contamination: Diarrheal disease

Loss of homes, land, due to flooding, fires, ocean level rises

Injuries and deaths from extreme weather events

Mental stress, depression, desperation, loss of well-being

Disruption of social norms

Population migration and conflict

Aggravation of poverty and effects on vulnerable populations

Loss of connection to nature

nurses is part of planning. Partner with organisations like the Canadian Coalition for Green Health Care, Health Care Without Harm, Global Green & Healthy Hospitals. Get involved in issues related to reducing heat islands: tree planting; creating public transport/ bicycling options for employees; green purchasing; waste management. Do a lunch and learn, or Nursing Rounds talk on climate and health. Join the patients' committee and put climate on the agenda.

### Client/Patients

Assess. What are the risks and needs of your patients/clients? Provide anticipatory guidance in relation to risks in your area. Find out the location of those who are more vulnerable to heat waves, extreme weather, floods, air quality related conditions, or other climate events. Teach simple ways of keeping

your house cooler and keeping the air quality fresh by your choice of curtains, blinds, plants, cleaning products and personal care products; and by vacuuming and damp-dusting to rid the home of dust containing air-borne particles of chemicals and heavy metals. Help organise a Trottibus for local school children (Canadian Cancer Society, 2016). Teach patients/clients about air quality and health and how to use the Air Quality Health Index for advice on outdoor activities.

Learn about risks for Lyme disease, West Nile virus or other vector borne diseases in your area. Teach precautions when walking in fields or woods where these risks are endemic: e.g. wear long pants, sleeves, use insect repellent.

Connect with local emergency response teams and become involved in education for prevention and action with extreme weather events.

Let us as nurses take up the challenge and be amongst those who lead the way in setting out on the path to health and restoration.

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## RESOURCES FOR NURSES

**Canadian Cancer Society Trottibus:** [www.cancer.ca/en/prevention-and-screening/live-well/healthy-habits-for-families/trottibus-walking-school-bus-qc/?region=qc](http://www.cancer.ca/en/prevention-and-screening/live-well/healthy-habits-for-families/trottibus-walking-school-bus-qc/?region=qc)

**CNA Position Statement on Climate Change and Health, (2009):** [cna-aiic.ca](http://cna-aiic.ca)

**Canadian Nurses Association (2009) The Role of Nurses in Addressing Climate Change:** [www.cna-aiic.ca/~media/cna/page-content/pdf-en/climate\\_change\\_2008\\_e.pdf?la=en](http://www.cna-aiic.ca/~media/cna/page-content/pdf-en/climate_change_2008_e.pdf?la=en)

**David Suzuki:** [www.davidsuzuki.org/what-you-can-do/top-10-ways-you-can-stop-climate-change](http://www.davidsuzuki.org/what-you-can-do/top-10-ways-you-can-stop-climate-change)

**Protecting Patients from Climate Change One Nurse at a Time:**

<https://medium.com/@HCWH/protecting-patients-from-climate-change-one-nurse-at-a-time-eddee5c068ff#42tx0p1gshttp>

**A Residential Climate Change Intervention with Public Health Nurses (2014). Nurses for Cool and Healthy Homes:** [www.mha.org/mghc/docs/mghc\\_wan.pdf](http://www.mha.org/mghc/docs/mghc_wan.pdf)

**Lyme Disease. Government of Canada (2015):** [www.healthycanadians.gc.ca/diseases-conditions-maladies-affections/disease-maladie/lyme/index-eng.php](http://www.healthycanadians.gc.ca/diseases-conditions-maladies-affections/disease-maladie/lyme/index-eng.php)

**Public Health Agency of Canada (2015). Climate Change and Public Health Factsheets:** [www.phac-aspc.gc.ca/hp-ps/eph-esp/fs-fi-a-eng.php](http://www.phac-aspc.gc.ca/hp-ps/eph-esp/fs-fi-a-eng.php)

**Consumer Reports (2015). Drugs that can make you sensitive to heat:** [www.consumerreports.org/cro/2014/04/drugs-that-can-make-you-sensitive-to-heat/index.htm](http://www.consumerreports.org/cro/2014/04/drugs-that-can-make-you-sensitive-to-heat/index.htm)

## WEBSITES

**Alliance of Nurses for Healthy Environments:** <http://envirn.org>

**Canadian Nurses for Health and the Environment:** [www.cnhe-iise.ca](http://www.cnhe-iise.ca)

**New Brunswick Children's Health and the Environment Collaborative:** <http://nben.ca/index.php/en/groups-in-action/working-together/new-brunswick-childrens-environmental-health-collaborative>

**Collaborative on Health and Environment:** [www.healthandenvironment.org](http://www.healthandenvironment.org)

**David Suzuki Foundation:** [www.davidsuzuki.org](http://www.davidsuzuki.org)

**Health Care Without Harm:** <https://noharm.org>

**Health and Environment Alliance:** [www.env-health.org](http://www.env-health.org)

**BMJ Infographic: Climate Change Health Impacts:** [www.bmj.com/infographics](http://www.bmj.com/infographics)

**Public Health Agency of Canada:** [www.phac-aspc.gc.ca](http://www.phac-aspc.gc.ca)

**The Leap Project:** <http://leap-eu.org>

Wang, Helena, Horton, R.(2015). Tackling climate change: the greatest opportunity for global health. The Lancet, 386(10006), pp 1798 – 1799. DOI: [http://dx.doi.org/10.1016/S0140-6736\(15\)60931-X](http://dx.doi.org/10.1016/S0140-6736(15)60931-X)