National Collaborating Centre
for Determinants of Health

Centre de collaboration nationale
des déterminants de la santé

# CLIMATE CHANGE, HEALTH EQUITY AND PUBLIC HEALTH RESPONSES: A CURATED LIST

Climate change is an urgent public health and health equity issue.[1-4] The health of the planet, including the climate, shapes everyone's opportunity for health.[5,6] However, climate change does not affect everyone equally. Communities who already experience health inequities due to structural factors such as colonization, racism and inequitable income distribution are more vulnerable to the negative impacts of climate change, including harms to health.[4] Thus, climate change has the potential to worsen existing health inequities.[7,8]

Recognizing that addressing climate change is an emerging area of Canadian public health practice, the National Collaborating Centre for Determinants of Health (NCCDH) has selected the following key resources for public health practitioners and researchers to understand the relationship between climate change and health equity and centre equity within their responses.

This curated list highlights 16 relevant resources and points to other key documents; it is not intended to be comprehensive. Resources are organized under three categories: **climate change and public health, climate change and health equity and opportunities for equity-focused public health action**.

CLIMATE CHANGE AND PUBLIC HEALTH

The resources below provide background knowledge on climate change and outline the impact of a changing climate on human health.
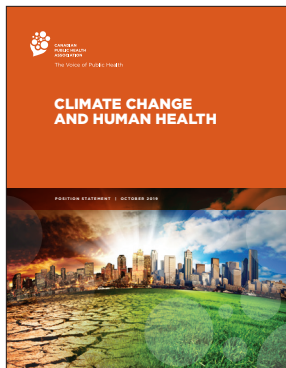
**Climate Change
Toolkit for Health
Professionals**

April 2019

ACME CAPE
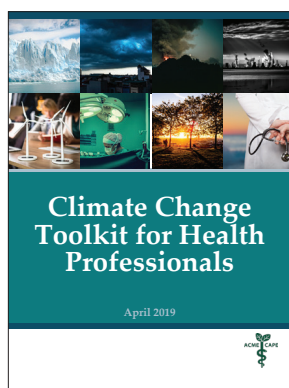
Climate change toolkit for health professionals

Canadian Association of Physicians for the Environment. [2019].

This toolkit, comprising eight modules, is designed for health professionals and students to engage in various types of action to address climate change, including education, advocacy, mitigation and adaptation planning.[9]

Module 1, titled *Climate change: Science, drivers & commitments* (and the accompanying fact sheet), provides a particularly useful primer for understanding the causes of a changing climate, the related science and evidence and the commitments countries have made in response. Public health practitioners will also be interested in module 3, which reviews the health impacts of climate change across Canada, as well as module 5, which identifies climate change solutions with immediate health benefits.
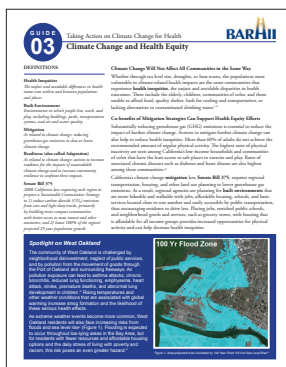
Climate change and human health

Canadian Public Health Association. [2019].

This position statement summarizes why climate change is a health emergency and provides a brief review of the anticipated health impacts across Canada.[2] Of the many recommendations, several specifically include a health equity focus. Canadian public health professionals and organizations, for example, are asked to use an equity lens when reporting on climate health impacts; report on how climate change is affecting the health of Indigenous Peoples; integrate health equity impact assessments into policy processes; and conduct research on the physical, mental and health equity implications of a changing climate.

Climate change quick guides

Bay Area Regional Health Inequities Initiative. [No date].

This series of five short guides are a useful starting place for public health staff education about climate change and equity.[10] The first guide outlines climate change, describes it as a public health issue and lists related health impacts. The second and third guides explore the relationship between public health and health equity, as well as how addressing climate change benefits both health and health equity. The final two guides outline what public health professionals can do to address climate change — for example, educating intersectoral partners and policymakers about the links between housing, health and climate-related vulnerability.

RESOURCES FROM THE NATIONAL COLLABORATING CENTRE FOR ENVIRONMENTAL HEALTH (NCCEH)

The NCCEH website contains several resources on climate change and health, including project pages on wildfire smoke[11] and extreme heat.[12] These pages feature links to past webinars and presentations, evidence reviews, guidance documents and a popular short video, *Extreme heat can be a killer*.[13] The Professional Development section of the NCCEH website links to papers written by the recipients of the Ron de Burger student award. *Strategies to mitigate the impacts of extreme heat events among homeless populations in BC's lower mainland: A review of evidence-based approaches and recommendations*[14] is a paper by Edrene Dol Cabantog and is particularly relevant to the topic of climate change and health equity.

FOR MORE ON HEALTH AND CLIMATE CHANGE

- The Lancet countdown on health and climate change: Policy brief for Canada. *Lancet Countdown*, *CMA*, *CPHA*. [2019].[15]
- COP24 Special report: Health and climate change. *World Health Organization*. [2018].[16]
- Climate change and health: It's time for nurses to act. A discussion paper. *Canadian Federation of Nurses Unions*. [2019].[17]
- Collaborative Call-to-action on climate change and health from organizations that represent doctors, nurses, medical officers of health and public health professionals across Canada. *Canadian Association of Physicians for the Environment*. [2019].[18]

CLIMATE CHANGE AND HEALTH EQUITY

The following resources explore the many points of connection between climate change and health equity, from situating climate change as a disrupter of planetary health to examining how poverty and inequity compromise sustainable development goals. These resources also support public health practitioners to explore the concept of unequal vulnerability and question how First Nations child health has been approached in climate change scholarship.
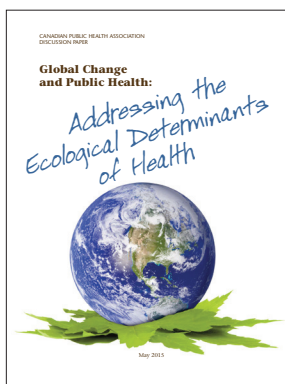
Global change and public health: Addressing the ecological determinants of health

Canadian Public Health Association. [2015].

This discussion paper situates climate change alongside other key areas of global environmental change such as ecotoxicity and the acidification of oceans.[6] The authors aim to inform and influence the public health community to address inequities through action on the ecological determinants of health. At a base level, these determinants include oxygen, water and food. They also include ecosystems and other systems that support civilizations through shelter, energy and a climate that can support human life. The authors position intergenerational equity as a critical goal and discuss the need to design climate change responses grounded in the public health values of social justice and sustainability.

Sustainable development, poverty eradication and reducing inequalities

Roy J, Tschakert P, Waisman H, et al. [2018].

This fifth chapter[19] of the 2018 Intergovernmental Panel on Climate Change (IPCC) special report[20] emphasizes that eradicating poverty and reducing inequalities are fundamental to combatting climate change and achieving the United Nations sustainable development goals.[21] Section 5.2 offers a global perspective on what 1.5°C of warming means for poverty, equality and equity. Section 5.5. explores related pathways for limiting warming to 1.5°C. Finally, section 5.5.3.1 discusses the role equity, fairness and justice may play in these pathways.

Department of Economic & Social Affairs
DESA Working Paper No. 152
ST/ESA/2017/DWP/152
October 2017

Climate Change and Social Inequality*

By S. Nazrul Islam and John Winkel

Climate change and social inequality

Islam SN, Winkel J. [2017].

This paper outlines how the discussion on climate change and social inequality has evolved over time, making the distinction between climate justice, inequalities across countries and inequalities within countries.[7] The authors outline the pathways through which initial inequality is worsened by the effects of climate change. They propose a conceptual framework for the links between climate change and inequality and examine how social inequality impacts exposure to climate hazards, susceptibility to damage and the ability to cope and recover.
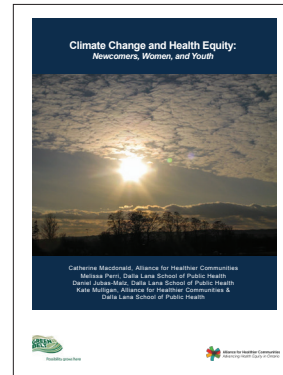

The Lancet Countdown on Health and Climate Change

Policy brief for the United States of America

NOVEMBER 2019

The Lancet countdown on health and climate change: Policy brief for the United States of America

Salas RN, Knappenberger P, Hess J. [2019].

This policy brief was written with a special focus on health equity and climate change, describing, for example, the disproportionate burden of air pollution experienced by Indigenous, Black and Latinx communities.[4] Public health practitioners will find the graphic in Figure 1 (Unequal health vulnerability in a heat wave) particularly useful. The authors illustrate four person-specific case examples, assessing each individual's vulnerability and naming related adaptation actions. In this graphic, race is depicted as a risk factor for exposure to extreme heat and air pollution.

Climate Change and Health Equity:
Newcomers, Women, and Youth

Catherine Macdonald, Alliance for Healthier Communities
Melissa Perri, Dalla Lana School of Public Health
Daniel Jubas-Malz, Dalla Lana School of Public Health
Kate Mulligan, Alliance for Healthier Communities &
Dalla Lana School of Public Health

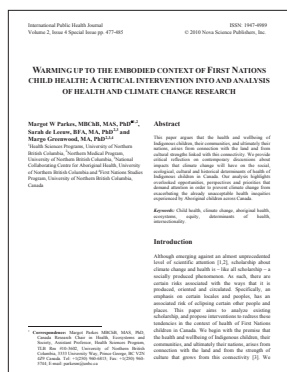### Climate change and health equity: Newcomers, women, and youth

Macdonald C, Perri M, Jubas-Malz D, Mulligan, K. [no date].
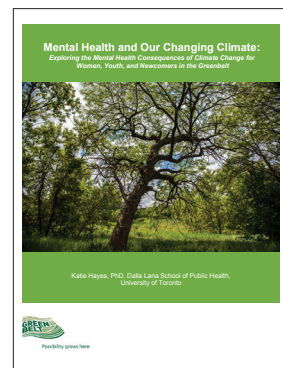
Mental Health and Our Changing Climate:
Exploring the Mental Health Consequences of Climate Change for Women, Youth, and Newcomers in the Greenbelt

Katie Hayes, PhD, Dalla Lana School of Public Health,
University of Toronto

Mental health and our changing climate: Exploring the mental health consequences of climate change for women, youth, and newcomers in the greenbelt

Hayes K. [no date].

These evidence summaries will help inform public health practitioners as they orient interventions towards vulnerable populations.[22,23] Together, they describe the impacts of a changing climate, including mental health consequences, on newcomers, women and youth. Both reports consider intersecting determinants of health and building on assets within groups. Other initiatives are described and will be of interest to public health staff planning adaptation activities and considering potential partnerships, community engagement and ways to build community resilience.

Resources from the National Collaborating Centre for Indigenous Health (NCCIH)

WARMING UP TO THE EMBODIED CONTEXT OF FIRST NATIONS CHILD HEALTH: A CRITICAL INTERVENTION INTO AND ANALYSIS OF HEALTH AND CLIMATE CHANGE RESEARCH

Margot W Parkes, MBChB, MAS, PhD[a,*], Sarah de Leeuw, BFA, MA, PhD[2] and Margo Greenwood, MA, PhD[2,3,4]
[1]Health Sciences Program, University of Northern British Columbia, [2]Northern Medical Program, University of Northern British Columbia, [3]National Collaborating Centre for Aboriginal Health, University of Northern British Columbia and [4]First Nations Studies Program, University of Northern British Columbia, Canada

Abstract

This paper argues that the health and wellbeing of Indigenous children, their communities, and ultimately their nations, arises from connection with the land and from cultural strengths linked with this connectivity. We provide critical reflection on contemporary discussions about impacts that climate change will have on the social, ecological, cultural and historical determinants of health of Indigenous children in Canada. Our analysis highlights overlooked opportunities, perspectives and priorities that demand attention in order to prevent climate change from exacerbating the already unacceptable health inequities experienced by Aboriginal children across Canada.

Keywords: Child health, climate change, aboriginal health, ecosystems, equity, determinants of health, intersectionality

Introduction

Although emerging against an almost unprecedented level of scientific attention [1,2], scholarship about climate change and health is – like all scholarship – a socially produced phenomenon. As such, there are certain risks associated with the ways that it is produced, oriented and circulated. Specifically, an emphasis on certain locales and peoples, has an associated risk of eclipsing certain other people and places. This paper aims to analyze existing scholarship, and propose interventions to redress these tendencies in the context of health of First Nations children in Canada. We begin with the premise that the health and wellbeing of Indigenous children, their communities, and ultimately their nations, arises from connection with the land and from the strength of culture that grows from this connectivity [3]. We

Correspondence: Margot Parkes, MBChB, MAS, PhD, Canada Research Chair in Health, Ecosystems and Society, Assistant Professor, Health Sciences Program, TLB Rm 10-3402, University of Northern British Columbia, 3333 University Way, Prince George, BC V2N 4Z9 Canada. Tel: +1(250) 960-6813, Fax: +1(250) 960-5744, E-mail: parkesm@unbc.ca

The NCCIH website has several resources on environmental health that explore, among other topics, prioritizing Indigenous knowledge(s) in knowledge exchange and decision-making[24] and how the built environment influences the health of First Nations reserve communities.[25] A 2010 article by Margot Parkes, NCCIH Academic Lead Margo Greenwood and Sarah de Leeuw, *Warming up to the embodied context of First Nations child health: A critical intervention into and analysis of health and climate change research*,[26] analyzes and questions previous conceptualizations of First Nations child health in climate change research. The authors consider three important emerging trends in research and climate change scholarship: (1) conceptualizing Indigenous child health holistically; (2) connecting health, ecosystems and equity; and (3) taking an intersectional lens. In their conclusion, the authors argue that explicitly naming ecosystems and equity as interrelated determinants of health should complement current approaches, where Indigenous communities are identified, among others, as vulnerable populations.

OTHER RESOURCES ON CLIMATE CHANGE AND HEALTH EQUITY

- Cities, climate change, and health equity. *Wellesley Institute.* [2018].[27]
- Bridging climate, health, and equity: A growing imperative. *White-Newsome J, Meadows P, Kabel C.* [2018].[28]
- Why we need climate, health, and equity in all policies *National Academy of Medicine Perspectives.* [2014].[29]

OPPORTUNITIES FOR EQUITY-FOCUSED PUBLIC HEALTH ACTION

Responding to the climate crisis is an emerging area of public health practice.[30-32] The following resources will support public health practitioners to centre equity into their climate-related action plans. Opportunities for equity-focused public health action include engaging with Indigenous and racialized communities as sources of expertise, valued partners and drivers of climate action; applying a racial equity lens to community engagement, mitigation and adaptation-planning; building social cohesion within communities; and more.
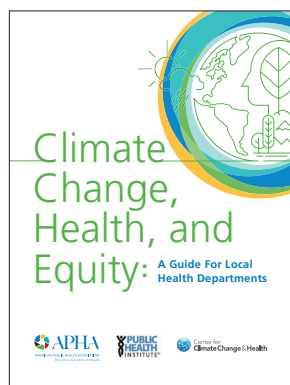
Climate change, health and equity: A guide for local public health departments

Rudolph L, Harrison C, Buckley L, North S. [2018].

This guide,[3] developed for local public health organizations by the Center for Climate Change and Health, can help public health staff achieve two goals: (1) to increase understanding of the inextricable links between climate change and health equity and (2) to support integration of climate change and health equity into local public health practice. This resource provides a useful outline of the relevant science and defines terms related to planetary health, climate change and health equity. Guidance is also provided on integrating health equity into assessment and surveillance efforts, as well as engaging in intersectoral collaboration, community engagement and climate and health communications. Existing tools, frameworks and resources are included throughout, as well as case examples from United States public health departments.

FURTHER GUIDANCE ON VULNERABILITY ASSESSMENTS

- Ontario climate change and health toolkit, including guidance on conducting a health vulnerability and adaptation assessment. *Government of Ontario.* [2016].[33]
- Protecting health from climate change: Vulnerability and adaptation assessment. *World Health Organization.* [2013].[34]
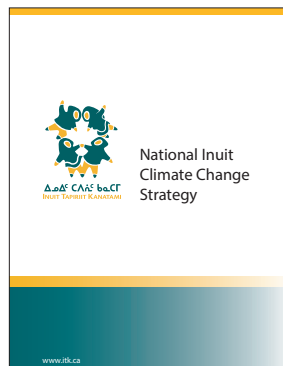
National Inuit climate change strategy

Inuit Tapiriit Kanatami. [2019].

This strategy situates climate change as a current health equity crisis across Inuit Nunangat, the 51 communities located across the Inuvialuit Settlement Region (Northwest Territories), Nunavut, Nunavik (Northern Québec) and Nunatsiavut (Northern Labrador).[35] Offered in four languages, the report contains useful knowledge for Canadian public health professionals, particularly those working with Inuit communities and participating in policy processes. The authors emphasize the importance of self-determination, with both research and climate responses being driven by Inuit needs. The strategy integrates case examples of promising Inuit-led initiatives, identifies five priority climate actions, proposes a framework for collaborating with Inuit communities on climate related work and includes a strategy implementation guide.

The State of Climate Adaptation in Public Health
An Assessment of 16 U.S. States

Rachel M. Gregg, Kathryn N. Braddock, and Jessi M. Kershner

2019

EcoAdapt

**The State of climate adaptation in public health: An assessment of 16 U.S. states**

EcoAdapt. [2019].

This report assesses how 16 United States public health departments are understanding and responding to public health threats related to climate change.[36] The results of this scan offer useful insights for adaptation-planning and implementation in other local public health settings. An introductory section discusses health inequities, including how the structural determinants shape the distribution of wealth, power and resources and are an essential part of the discussion on climate change and public health. Several case studies in this report mention equity considerations, including those from Michigan, Missouri, Ohio and Oregon. Canadian public health staff will also benefit from resources, tools and case studies shared on the Climate Adaptation Knowledge Exchange (CAKE) site,[37] which was developed as part of this project.

FOR MORE ON CLIMATE ACTION IN CANADA

- Perspectives on climate change action in Canada: A collaborative report from auditors general *Office of the Auditor General of Canada.* [2018].[38]
- Canada's changing climate report: Advancing our knowledge for action. *Government of Canada.* [2019].[39]
- Health equity, population health, and climate change adaptation in Ontario, Canada. *Buse C.* [2015].[8]
- Cities adapt to extreme heat: Celebrating local leadership. *Health Canada.* [2016].[40]
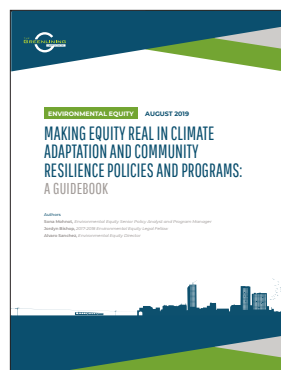
ENVIRONMENTAL EQUITY · AUGUST 2019

MAKING EQUITY REAL IN CLIMATE ADAPTATION AND COMMUNITY RESILIENCE POLICIES AND PROGRAMS: A GUIDEBOOK

Authors
Sona Mohnot, *Environmental Equity Senior Policy Analyst and Program Manager*
Jordyn Bishop, *2017-2018 Environmental Equity Legal Fellow*
Alvaro Sanchez, *Environmental Equity Director*

Making equity real in climate adaptation and community resilience policies and programs: A guidebook

Mohnot S, Bishop J, Sanchez A. [2019].

This guide from California's Greenlining Institute is intended to help operationalize social equity when planning, implementing and analyzing policies and programs.[41] Canadian public health practitioners can apply the recommendations in this guide to their own program-planning and community engagement processes. They can also use this guide to assess how social equity is being integrated into other climate-related policies and plans, as well as to refer to relevant case examples of social equity being embedded into policies and programs. This guide was released alongside *Mapping resilience: A blueprint for thriving in the face of climate disasters*[42] from the Asia Pacific Environmental Network. This companion resource outlines existing indicators, tools and analytical frameworks related to climate change, vulnerability and resilience.

Guide to equitable, community-driven climate preparedness planning

Urban Sustainability Directors Network. [2017].

This guide contains relevant guidance and resource links for Canadian public health professionals as they approach engaging with communities and responding to climate change health impacts including extreme heat, flooding and poor air quality.[43] It proposes a framework that places equity at the centre of planning and names the first step in a planning process as building community and local government readiness. Table 8 (*Equitable adaptation considerations and strategies*) summarizes climate hazards, typical adaptation strategies, equity considerations and concrete suggestions for building resilience. Racial equity is emphasized throughout the guide and a separate racial equity evaluation tool is available for download.
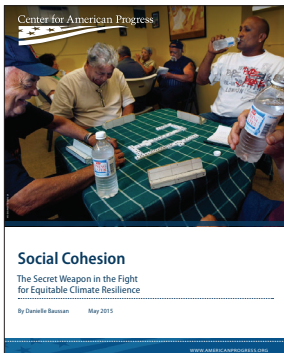
Social cohesion: The secret weapon in the fight for equitable climate resilience

Center for American Progress. [2015].

This report could be used by Canadian public health professionals to learn more about the import role of social cohesion in building climate resilience before, during and after extreme weather events.[44] The analysis focuses on building climate resilience among low-income communities who are particularly vulnerable to the effects of climate change. It also references case examples of social cohesion during past extreme weather events. The recommendations made to support social cohesion and climate resilience will resonate for those in public health as they relate to action on the social determinants of health. Examples include calling for better and more affordable housing and robust urban infrastructure, assessing and reporting on vulnerable areas by creating a social and climate vulnerability index, building trust, fostering leadership and engaging with communities. The resource also recommends offering incentives to organizations and networks that have the ability to increase social cohesion as a complement to emergency preparedness programming.

RESOURCES FROM THE NATIONAL COLLABORATING CENTRE FOR DETERMINANTS OF HEALTH
[No date, accessed 2019]

The NCCDH website links to several other resources that would support public health to integrate health equity into climate change related action. These include:

- a past webinar on climate change, public health and health equity;[45]
- a case story on advocating against environmental racism in Nova Scotia;[46]
- curated readings lists on anti-racism,[47] intersectoral action,[48] the built environment[49] and advocacy;[50]
- a discussion piece on intersectionality;[51] and
- a 2013 guide to community engagement frameworks for action on the social determinants of health and health equity.[52]

REFERENCES

1. Wahowiak L. Climate change, health equity 'inextricably linked': vulnerable populations most at risk from harmful effects [Internet]. The Nation's Health: 2018, 48 (7) 1-10. Available from: http://thenationshealth.aphapublications.org/content/48/7/1.1.

2. Canadian Public Health Association. Climate change and human health [Internet]. Ottawa (ON): CPHA; 2019 [cited 2020 Jan 12]. 12 p. Available from: https://www.cpha.ca/climate-change-and-human-health.

3. Rudolph L, Harrison C, Buckley L, North S. Climate change, health, and equity: a guide for local health departments [Internet]. Oakland (CA), Washington (DC): Public Health Institute; 2018 [cited 2020 Jan 12]. 370 p. Available from: https://www.apha.org/topics-and-issues/climate-change/guide.

4. Salas RN, Knappenberger P, Hess JJ. Lancet countdown 2019: 2019 Lancet countdown on health and climate change policy brief for the United States of America [Internet]. London (UK): American Public Health Association; 2019 [cited 2020 Jan 12]. 11 p. Available from: https://www.lancetcountdownus.org/2019-lancet-countdown-us-brief.

5. Commission of the Pan American Health Organization on Equity and Health Inequalities in the Americas. Just societies: health equity and dignified lives. Executive summary of the report of the Commission of the Pan American Health Organization on equity and health inequalities in the Americas [Internet]. Washington (DC): PAHO; 2018 [cited 2020 Jan 12]. 285 p. Available from: http://iris.paho.org/xmlui/handle/123456789/51571.

6. Canadian Public Health Association. Global change and public health: addressing the ecological determinants of health [Internet]. Ottawa (ON): CPHA; 2015 [cited 2020 Jan 12]. 28 p. Available from: https://www.cpha.ca/sites/default/files/assets/policy/edh-discussion_e.pdf.

7. Islam SN, Winkel J. Climate change and social inequality [Internet]. New York (NY): United Nations, Department of Economic and Social Affairs; 2017 [cited 2020 Jan 12]. 30 p. Available from: https://www.un.org/esa/desa/papers/2017/wp152_2017.pdf.

8. Buse CG. Health equity, population health, and climate change adaptation in Ontario, Canada [Internet]. Health Tomorrow. 2015;3(1):26-51 [cited 2020 Jan 12]. Available from: https://ht.journals.yorku.ca/index.php/ht/article/view/40177.

9. Perrotta K, ed. Climate change toolkit for health professionals [Internet]. Toronto (ON): Canadian Association of Physicians for the Environment; 2019 [cited 2020 Jan 14]. Available from: https://cape.ca/campaigns/climate-health-policy/climate-change-toolkit-for-health-professionals/.

10. Climate change quick guides [Internet]. Bay Area Regional Health Inequities Initiative; c2015 [cited 2020 Jan 14]. Available from: http://barhii.org/resources/climate-change-quick-guides/.

11. National Collaborating Centre for Environmental Health. Wildfire smoke and health [Internet]. Vancouver (BC): NCCEH; c2019 [updated 2019 Aug 21; cited 2020 Jan 14]. Available from: http://www.ncceh.ca/environmental-health-in-canada/health-agency-projects/wildfire-smoke-and-health.

12. National Collaborating Centre for Environmental Health. Extreme heat [Internet]. Vancouver (BC): NCCEH; c2019 [updated 2019 Sep 18; cited 2020 Jan 14]. Available from: http://www.ncceh.ca/environmental-health-in-canada/health-agency-projects/extreme-heat.

13. National Collaborating Centre for Environmental Health. Extreme heat can be a killer [Video on the internet]. Vancouver (BC): NCCEH; 2018 Aug 13 [cited 2020 Jan 14]. Available from: https://www.youtube.com/watch?v=RBwgS_1D5FM.

14. Cabantog ED. Strategies to mitigate the impacts of extreme heat events among homeless populations in BC's Lower Mainland: a review of evidence-based approaches and recommendations [master's thesis]. [Burnaby (BC)]: Simon Fraser University; 2017 [cited 20202 Jan 14]. 21 p. Available from: http://www.ncceh.ca/sites/default/files/SFU-Cabantog-2017.pdf.

15. Howard C, Buse C, Rose C, MacNeill A, Parkes M. The Lancet countdown on health and climate change: policy brief for Canada [Internet]. Lancet Countdown, CMA, CPHA: 2019 [cited 2020 Jan 12]. 8 p. Available from: https://storage.googleapis.com/lancet-countdown/2019/11/Lancet-Countdown_Policy-brief-for-Canada_FINAL.pdf.

16. World Health Organization. COP24 Special report: health and climate change [Internet]. Geneva: WHO; 2018 [cited 2020 Jan 12]. 74 p. Available from: https://www.who.int/globalchange/publications/COP24-report-health-climate-change/en/.

17. Martin W, Vold L. Climate change and health: it's time for nurses to act. A discussion paper [Internet]. Ottawa (ON): Canadian Federation of Nurses Unions; 2019 [cited 2020 Jan 12]. Available from: https://nursesunions.ca/wp-content/uploads/2019/05/CFNU_climatechange-web.pdf.

18. Perrotta K, Howard C, Canadian Medical Association, Canadian Nurses Association, Urban Public Health Network, Canadian Public Health Association. Call to action on climate change and health [Internet]. Toronto (ON): Canadian Association of Physicians for the Environment; 2019 [cited 2020 Jan 21]. 5 p. Available from: https://cape.ca/wp-content/uploads/2019/12/Call-to-Action-ENGLISH-Dec-2019.pdf.

19. Roy J, Tschakert P, Waisman H, et al. Chapter 5, Sustainable development, poverty eradication and reducing inequalities [Internet]. In: Special report: global warming of 1.5°C. Masson-Delmotte V, Zhai P, Pörtner HO, et al, editors. 2018, in press [cited 2020 Jan 14]. 94 p. Available from: https://www.ipcc.ch/sr15/chapter/chapter-5/.

20. Masson-Delmotte V, Zhai P, Pörtner HO, et al, editors. Special report: global warming of 1.5°C [Internet]. 2018, in press [cited 2020 Jan 14]. Available from: https://www.ipcc.ch/sr15/.

21. Sustainable development goals [Internet]. United Nations; 2015 [cited 2020 Jan 14]. Available from: https://sustainabledevelopment.un.org/?menu=1300.

22. Macdonald C, Perri M, Jubas-Malz D, Mulligan, K. Climate change and health equity: Newcomers, women, and youth [Internet]. Toronto (ON): Greenbelt; [date unknown] [cited 2020 Jan 14]. 18 p. Available from: https://d3n8a8pro7vhmx.cloudfront.net/greenbelt/pages/12205/attachments/original/1571232617/Climate_Change_and_Health_Equity_report_-_FINAL_v2.pdf?1571232617.

23. Hayes K. Mental health and our changing climate: exploring the mental health consequences of climate change for women, youth, and newcomers in the greenbelt [Internet]. Toronto (ON): Greenbelt; [date unknown] [cited 2020 Jan 14]. 27 p. Available from: https://d3n8a8pro7vhmx.cloudfront.net/greenbelt/pages/12205/attachments/original/1571232619/Climate_Change_and_Mental_Health_report_-_FINAL_v2.pdf?1571232619.

24. Jack S, Dobbins M, Furgal C, Greenwood M, Brooks S. Aboriginal environmental health issues: researchers' and decision-makers' perceptions of knowledge transfer and exchange processes [Internet]. Prince George (BC): National Collaborating Centre for Aboriginal Health; 2010 [cited 2020 Jan 14]. 35 p. Available from: https://www.nccih.ca/495/Aboriginal_environmental_health_issues__Researchers__and_decision_makers__perceptions_of_knowledge_transfer_and_exchange_processes.nccih?id=68.

25. Stout R. The built environment: understanding how physical environments influence the health and well-being of First Nations peoples living on-reserve [Internet]. Prince George (BC): National Collaborating Centre for Aboriginal Health; 2018 [cited 2020 Jan 14]. 34 p. Available from: https://www.nccih.ca/495/The_built_environment__Understanding_how_physical_environments_influence_the_health_and_well-being_of_First_Nations_peoples_living_on-reserve_.nccih?id=236.

26. Parkes MW, de Leeuw S, Greenwood M. Warming up to the embodied context of First Nations child health: a critical intervention into and analysis of health and climate change research. Int Public Health J. 2. 477-485.

27. Kumar N. Cities, climate change, and health equity [Internet]. Toronto (ON): Wellesley Institute; 2018 [cited 2020 Jan 12]. 12 p. Available from: https://www.wellesleyinstitute.com/wp-content/uploads/2018/06/Cities-Climate-Change-Health-Equity-WIJune-2018-fv.pdf.

28. White-Newsome J, Meadows P, Kabel C. Bridging climate, health, and equity: a growing imperative [Internet]. Amer J Public Health. 2018;108(S2):S72-3 [cited 2020 Jan 12]. Available from: https://ajph.aphapublications.org/doi/pdfplus/10.2105/AJPH.2017.304133.

29. Gould S, Rudolph L. Why we need climate, health, and equity in all policies [Internet]. National Academy of Medicine Perspectives. 2014 [cited 2020 Jan 12]. Available from: https://nam.edu/perspectives-2014-why-we-need-climate-health-and-equity-in-all-policies/.

30. Ontario Public Health Association. Health and climate change: OPHA fall forum 2019 program schedule [Internet]. Toronto (ON): OPHA; 2019 Nov [cited 2020 Jan 28]; [about 7 screens]. Available from: https://www.ophafallforum.com/program-overview.

31. Buse CG, Poland B, Wong J, Haluza-Delay R. 'We're all brave pioneers on this road': a Bourdieusian analysis of field creation for public health adaptation to climate change in Ontario, Canada. Crit Public Health. 2019.

32. Austin SE, Ford JD, Berrang-Ford L, Biesbroek R, Ross NA. Enabling local public health adaptation to climate change. Social Science & Medicine. 2019;220:236-244.

33. Ebi K, Anderson V, Berry P, Paterson J, Yusa A. Ontario climate change and health toolkit [Internet]. Toronto (ON): Ministry of Health and Long-Term Care; 2016 [cited 2020 Jan 14]. 168 p. Available from: http://www.health.gov.on.ca/en/common/ministry/publications/reports/climate_change_toolkit/climate_change_toolkit.pdf.

34. Protecting health from climate change: vulnerability and adaptation assessment [Internet]. Geneva: WHO; 2013 [cited 2020 Jan 14]. 62 p. Available from: https://apps.who.int/iris/handle/10665/104200.

35. Inuit Tapiriit Kanatami. National Inuit Climate Change Strategy [Internet]. Ottawa (ON): Inuit Tapiriit Kanatami; 2019 [cited 2020 Jan 14]. Available from: https://www.itk.ca/national-inuit-climate-change-strategy/resources/.

36. Gregg RM, Braddock KN, Kershner JM. The state of climate adaptation in public health: an assessment of 16 US states [Internet]. Bainbridge Island (WA): EcoAdapt; 2019 [cited 2020 Jan 14]. 85 p. Available from: https://www.cakex.org/sites/default/files/documents/EcoAdapt_Climate%20and%20Health%20Report_June%202019_3.pdf.

37. Climate Adaptation Knowledge Exchange [Internet]. Bainbridge Island (WA): EcoAdapt; c2020 [cited 2020 Jan 28]. Available from: https://www.cakex.org/.

38. Office of the Auditor General of Canada. Perspectives on climate change action in Canada: a collaborative report from auditors general [Internet]. Ottawa (ON): Office of the Auditor General of Canada; 2018 [cited 2020 Jan 14]. Available from: https://www.oag-bvg.gc.ca/internet/English/parl_otp_201803_e_42883.html.

39. Bush E, Lemmen DS, editors. Canada's changing climate report: advancing our knowledge for action [Internet]. Ottawa (ON): Government of Canada; 2019 [cited 2020 Jan 14]. 442 p. Available from: https://changingclimate.ca/CCCR2019/.

40. Guilbault S, Kovacs P, Berry P, Richardson GRA, editors. Cities adapt to extreme heat: celebrating local leadership [Internet]. Toronto (ON): Institute for Catastrophic Loss Reduction; 2016 [cited 2020 Jan 14]. 110 p. Available from: https://www.iclr.org/wp-content/uploads/PDFS/cities-adapt-to-extreme-heat.pdf.

41. Mohnot S, Bishop J, Sanchez A. Making equity real in climate adaptation and community resilience policies and programs: a guidebook [Internet]. Oakland (CA): Greenlining Institute; 2019 [cited 2020 Jan 14]. 104 p. Available from: http://greenlining.org/publications/2019/making-equity-real-in-climate-adaption-and-community-resilience-policies-and-programs-a-guidebook/.

42. Raval A, Asian Pacific Environmental Network, Chen T, Shah P. Mapping resilience: a blueprint for thriving in the face of climate disasters [Internet]. [location unknown]: APEN; 2019 [cited 2020 Jan 30]. 91 p. Available from: http://apen4ej.org/mapping-resilience/.

43. Yuen T, Yurkovich E, Grabowski L, Altshuler B. Guide to equitable, community-driven climate preparedness planning [Internet]. [location unknown]: Urban Sustainability Directors Network; 2017 [cited 2020 Jan 14]. 67 p. Available from: https://www.usdn.org/products-climate.html.

44. Baussan D. Social cohesion: the secret weapon in the fight for equitable climate resilience [Internet]. Washington (DC): Center for American Progress; 2015 [cited 2020 Jan 14]. 28 p. Available from: https://cdn.americanprogress.org/wp-content/uploads/2015/05/SocialCohesion-report2.pdf.

45. National Collaborating Centre for Determinants of Health. Climate change, public health and equity [video on the internet]. Antigonish (NS): NCCDH; 2019 [cited 2020 Jan 14]. Available from: http://nccdh.ca/workshops-events/entry/webinar-climate-change-public-health-and-equity.

46. National Collaborating Centre for Determinants of Health. Learning from practice: advocacy for health equity: environmental racism [Internet]. Antigonish (NS): NCCDH; 2017 [cited 2020 Jan 14]. 8 p. Available from: http://nccdh.ca/resources/entry/learning-from-practice-advocacy-for-health-equity-environmental-racism.

47. National Collaborating Centre for Determinants of Health. Key public health resources for anti-racism action: a curated list [Internet]. Antigonish (NS): NCCDH; 2018 [cited 2020 Jan 14]. 8 p. Available from: http://nccdh.ca/resources/entry/key-public-health-resources-for-anti-racism-action-a-curated-list.

48. National Collaborating Centre for Determinants of Health. Intersectoral collaboration to address health equity: a curated list [Internet]. Antigonish (NS): NCCDH; 2015 [cited 2020 Jan 14]. 4 p. Available from: http://nccdh.ca/resources/entry/intersectoral-collaboration-to-address-health-equity-a-curated-list.

49. National Collaborating Centre for Determinants of Health. Health equity and the built environment: a curated list [Internet]. Antigonish (NS): NCCDH; 2018 [cited 2020 Jan 14]. 6 p. Available from: http://nccdh.ca/resources/entry/health-equity-and-the-built-environment-a-curated-list.

50. National Collaborating Centre for Determinants of Health. Key public health resources for advocacy and health equity: a curated list [Internet]. Antigonish (NS): NCCDH; 2015 [cited 2020 Jan 14]. 4 p. Available from: http://nccdh.ca/resources/entry/advocacy-health-equity-curated-list.

51. National Collaborating Centre for Determinants of Health. Public health speaks: intersectionality and health equity [Internet]. Antigonish (NS): NCCDH; 2016 [cited 2020 Jan 14]. 8 p. Available from: http://nccdh.ca/resources/entry/public-health-speaks-intersectionality-and-health-equity.

52. National Collaborating Centre for Determinants of Health. A guide to community engagement frameworks for action on the social determinants of health and health equity [Internet]. Antigonish (NS): NCCDH; 2013 [cited 2020 Jan 14]. 28 p. Available from: http://nccdh.ca/resources/entry/a-guide-to-community-engagement-frameworks.