Northwestern Health Unit

Climate Change and Our Health in Northwestern Ontario
Workshop Summary Report
2017

Prepared by:
Marielle Verret M.A., Health Canada
Paddy Enright M.Sc., Health Canada
# TABLE OF CONTENTS

1.0  INTRODUCTION ........................................................................................................... 3  

1.1 Workshop Goals and Objectives .................................................................................. 3  

2.0  OPENING OF THE WORKSHOP ..................................................................................... 3  

3.0  SUMMARY OF PRESENTATIONS ..................................................................................... 4  

3.1 Climate Change and our Health in Northwestern Ontario ............................................. 4  

3.2 Climate Change and the Health of Canadians: Impacts and Adaptation in Northern Ontario ... 5  

3.3 Climate Change and Health Adaptation in Indigenous Communities ................................. 8  

4.0  DISCUSSION SESSION: INFORMATION SHARING AND LEARNING .............................. 10  

4.1 Summary of Discussions and Recommendations .......................................................... 10  

5.0  CLOSE OF THE WORKSHOP .......................................................................................... 12  

6.0  NEXT STEPS .................................................................................................................. 13  

APPENDIX A - AGENDA .......................................................................................................... 14  

APPENDIX B – PARTICIPANTS LIST ....................................................................................... 15
1.0 INTRODUCTION

On November 1, 2017 the Northwestern Health Unit (NWHU) began the process of conducting a Climate Change Vulnerability and Adaptation Assessment (V&A Assessment) with a series of presentations and discussion around the impacts of climate change on population health and the role of public health in the mitigation of these potential impacts. “Climate Change and Our Health in Northwestern Ontario” featured guest speakers Dr. Peter Berry from the Climate Change and Innovation Bureau of Health Canada and Mr. Daniel Brown from the Climate Change and Health Adaptation Program with the First Nations and Inuit Health Branch who outlined the current status of climate change and public health in Canada. The presentations where attended both in person and online via webinar. Participants were able to participate in discussion both in person and through the webinar. The NWHU and Health Canada would like to thank all participants for the feedback received.

A recording of the workshop, including presentation and discussion, can be accessed at the following links:

Chapter 1 https://youtu.be/7cOIEgIBLBo

Chapter 2 https://youtu.be/s-6VZU1abcU

1.1 Workshop Goals and Objectives

The goal of the workshop on Climate Change and Our Health in Northwestern Ontario was to provide participants with information on the planned V&A Assessment and to seek their views on the process.

Specific objectives included:

- sharing information on the expected impacts of climate change in Northwestern Ontario, including some of the impacts related to Indigenous populations living in the NWHU catchment area;
- presenting the proposed process of NWHU’s V&A Assessment; and
- providing a platform for participants to ask any questions they may have and provide input surrounding the health issues to be included in the V&A Assessment for the NWHU.

2.0 OPENING OF THE WORKSHOP

Dr. Kit Young-Hoon, Medical Officer of Health, opened the workshop by providing words of welcome and some context surrounding the relevancy of climate change to health for the NWHU. Dr. Young-Hoon remarked on the importance of understanding the impacts climate change may have on the health and wellbeing of those who call the NWHU’s catchment area home. The importance of doing a V&A Assessment as a means of complying with Ontario Ministry of Health and Long-term Care’s
Ontario Public Health Standards (OPHS, November 2017) was addressed. The corresponding goal of the OPHS is:

"To reduce exposure to health hazards and promote the development of healthy built and natural environments that support health and mitigate existing and emerging risks, including the impacts of a changing climate."

In addition to addressing the needs of residents of the NWHU catchment area, and meeting Ministry of Health and Long-Term Care standards, Dr. Young-Hoon also emphasized that the V&A Assessment presents an important opportunity for the NWHU to forge new partnerships and strengthen existing ones with sectors throughout the region. Dr. Young-Hoon concluded her remarks by introducing Ms. Erin Schillberg, the workshop facilitator, and introduced the workshop’s main speakers, Dr. Peter Berry and Mr. Daniel Brown from Health Canada’s Climate Change and Innovation Bureau (CCIB) and the First Nations and Inuit Health Branch (FNIHB), respectively.

3.0 SUMMARY OF PRESENTATIONS

3.1 Climate Change and our Health in Northwestern Ontario

Erin Schillberg – NWHU

Ms. Schillberg began her facilitation of the workshop by providing participants with an overview of both the workshop agenda and the NWHU expectations from the V&A Assessment process.

It was explained that the NWHU recognizes that the climate is changing globally, that these changes are occurring in Northwestern Ontario, and the resulting effects are having an impact on human health. Ms. Schillberg explained that the NWHU was looking to workshop participants to help begin the process of prioritizing the health hazards that may be experienced by residents of NWHU’s catchment area, in order to help focus the development of the V&A Assessment (see Figure 1).
Ms. Schillberg reinforced that completing such an assessment is a multi-step iterative process which is new to NWHU, but one that will be moved forward enthusiastically within NWHU and shared with external partners.

### 3.2 Climate Change and the Health of Canadians: Impacts and Adaptation in Northern Ontario

Dr. Peter Berry – Climate Change and Innovation Bureau (CCIB), Health Canada

The impact of climate change on human health is already being felt, and can be expected to increase in the future. Though these health impacts may be felt in a variety of different ways (e.g., vector-borne disease, extreme weather and natural hazards, reduced air quality, etc.) all are in some manner connected to, or driven by, increasing global average temperatures.

The World Health Organization has called on health authorities to begin preparing for climate change and various jurisdictions across Canada have begun to recognize the value of completing a V&A Assessment. Health Canada’s Climate Change and Innovation Bureau has provided assistance to many health units who have completed such assessments. Additionally the bureau was involved with Ontario’s Ministry of Health and Long-Term Care to develop Ontario’s Climate Change and Health
Toolkit. Dr. Berry’s presentation provided an overview of some of the expected health impacts of climate change, explained how V&A assessments can help health authorities prepare, outlined the past efforts of the Climate Change and Innovation Bureau, and provided insight into the various ways Health Canada can support health authorities in undertaking an assessment.

Dr. Berry’s presentation began with an overview of climate change. Though there is a need for mitigation to reduce future problems there is also a need to adapt to the inevitable global average warming that is going to occur due to past emissions. Canada, particularly more northern areas such as northwestern Ontario, is warming faster than the international average.

The impacts climate change is expected to have, and in some cases is already having, on human health were illustrated with both Canadian and international examples, including the expected temperature mortality relationship of select Canadian cities, illustrated below in Figure 2.

![Figure 2](image_url)

**Figure 2**: Temperature/mortality relationship for select Canadian cities (Health Canada 2012).

The threats posed by climate change to the health of Canadians have been outlined in a previous national V&A Assessment, *Human Health in a Changing Climate: A Canadian Assessment of...* [Ontario Ministry of Health and Long Term Care, 2016. Climate Change and Health Toolkit:](http://www.health.gov.on.ca/en/common/ministry/publications/reports/climate_change_toolkit/climate_change_toolkit.aspx)
Vulnerabilities and Adaptive Capacity conducted by Health Canada in 2008,² and updated within the Government of Canada’s 2014, Canada in a Changing Climate: Sector Perspectives on Impacts and Adaptation. These threats include, among others, increased prevalence of vector-borne diseases, wildfires, heat, impacts on food security, impacts on mental health, and impacts on the health system itself. Dr. Berry highlighted throughout his presentation that conducting an assessment is key to understanding how these or other risks may be impacting health at local levels.

Climate change is considered by Canadians to be the number one threat to their security (Pew Research Centre 2017). Additionally, a survey commissioned by the Government of Canada found that 69% of those who believe in climate change were able to identify at least one way in which climate change will affect health (Envirionics 2017). However, awareness of any one specific issue amongst respondents was relatively low.

Despite this concern, the process of preparing for the possible impacts of climate change, for the majority of health authorities is a new process. Dr. Berry introduced workshop participants to a number of guidance documents and tools that have been developed to assist health professionals in the development of a V&A Assessment. These include the WHO’s 2012, Protecting health from climate change: vulnerability and adaptation assessment,³ Ontario’s Climate Change and Health Toolkit and a Health Canada Climate Change and Health Vulnerability and Adaptation Assessment Workbook currently under development. In addition to these guides the Climate Change and Innovation Bureau provides advice and support on areas such as:

- How to engage stakeholders
- How to communicate results
- Sources of data
- Best practices for mapping
- Analysis of the results and prioritization of adaptation options.

In addition to this support and advice, Dr. Berry explained that the Climate Change and Innovation Bureau is working to develop a Community of Practice amongst health professionals to share further advice, guidance and best practices on the completion of V&A Assessments. The Climate Change and Innovation Bureau will continue to support to public health authorities in efforts to understand climate change risks to the health of populations and effective measures for adaptation – activities aligned with human health actions identified in the Pan-Canadian Framework on Clean Growth and Climate Change.⁴

---


3.3 Climate Change and Health Adaptation in Indigenous Communities

Daniel Brown – First Nations and Inuit Health Branch (FNIHB), Health Canada

The experts on climate change adaptation in Indigenous communities are community members themselves. This was the sentiment shared by Mr. Brown when beginning his presentation and a theme throughout his talk. Mr. Brown explained he is happy to share what he has learned from his experiences as part of the joint Health Canada and Indigenous and Northern Affairs Canada (INAC) Climate Change and Health Adaptation Program (CCHAP). This program developed and employed a collaborative capacity-building model that has allowed First Nations and Inuit communities to drive climate change and health resilience building projects in their communities. The CCHAP, originally launched in 2008, has funded 95 projects in northern First Nations and Inuit communities, and has now been opened to First Nations communities in Southern Canada. Summaries of these projects, as well as other valuable information, can be found on the Climate Telling website. From the onset the CCHAP’s strength has been that it helps facilitate for-community and by-community projects, many of which have resulted in research applicable to both Indigenous and non-Indigenous communities. The success of the CCHAP has shown the potential for Indigenous communities to be leaders in climate change and health adaptation.

As part of the CCHAP Mr. Brown participated in joint Health Canada – INAC Regional Engagement Sessions throughout Canada where Indigenous communities provided insight into how they either are or expect to be impacted by climate change. The CCHAP Engagement Sessions provided an opportunity to:

- Improve community awareness of climate change impacts and adaptation through traditional knowledge and western science
- Identify and discuss local and regional climate change impacts and priorities
- Discuss INAC and Health Canada funding programs to address climate change adaptation, and present examples of previously funded community projects
- Discuss opportunities for collaboration on community and regional projects in order to manage multiple climate impacts and improve community capacity, reduce reporting burden and improve community resilience
- Discuss community access to information and data related to climate change impacts and vulnerability assessments

As part of these sessions community members, with the help of a graphic artists, developed illustrations, such as Figure 3, that depict the community’s perspectives on climate change and the health and wellbeing of community members.

Some of the concerns and regional priorities shared by Indigenous community members as part of the regional sessions included:

- Infrastructure including buildings, housing, water, roads
- Environmental monitoring
- Youth involvement, outreach and monitoring
- Language, culture and traditional teachings
- Food security
- Sustainable funding, resources and support
- Training and capacity building
- Community land-based activities
- Community education and outreach
- Emergency measures planning
- Developing networks and partners
- Dedicated community climate change liaison
- Integrating Traditional Knowledge with western science
- Identify the physical, emotional, spiritual and mental health impacts

As the NWHU begins the process of a V&A Assessment it is important to include indigenous partners in order to gain an understanding of the impacts that are occurring more regionally and how these impacts can be addressed. Engaging with Indigenous communities is a main priority as Indigenous people make up 30% of the NWHU population and are a main target population in the strategic plan.
4.0 DISCUSSION SESSION: INFORMATION SHARING AND LEARNING

The workshop meeting concluded with a discussion section where participants in the room and on the line were encouraged to pose any questions and raise any comments they may have related to the planned assessment of climate change and health in the Northwestern Health Unit. These questions could be directed to a specific presenter or to the general assessment planning team.

4.1 Summary of Discussions and Recommendations

Disparities between heat mortality data presented for Canadian cities

Dr. Berry indicated that the disparities in data on heat mortality between Canadian cities are likely attributed to differences in vulnerability. Differences in individual and community-level vulnerability factors, demographics, occupational groups, urban design and Heat Alert and Response Systems (HARS) all contribute to the trends in heat mortality. When examining the data, it can be difficult to decipher which vulnerability factors are responsible for the observed trends. However, conducting a vulnerability and adaptation assessment can aid in further understanding these issues. Dr. Berry indicated that Health Canada has guidance material available for conducting heat-health vulnerability and adaptation assessments available on its website.

Addressing greenhouse gas mitigation efforts within the planned V&A Assessment for the NWHU

A participant was concerned that the planned assessment may not adequately address the mitigation component and sought clarification on this issue. Dr. Berry indicated that a key component of the Pan Canadian Framework on Clean Growth and Climate Change is mitigation and that Environment and Climate Change Canada (ECCC) leads this component. Health Canada does provide analysis on health implications of air proposed quality regulations.

Dr. Berry indicated that the health sector does emit a large amount of greenhouse gases. Health Canada has worked with the Canadian Coalition for Green Health Care towards the development of a toolkit that addresses resilience and also sustainability, including energy conservation. As suggested by Mr. Brown, climate change presents an important opportunity to redesign our communities to be more resilient and sustainable, delivering key health benefits such as through the promotion of active transportation. The heightening of resiliency within the health sector is a relatively new area of study that has garnered a lot of positive international attention recently.

It was raised that many sectors outside of health are engaged in climate change mitigation efforts and wondered whether this is captured within assessments. Dr. Berry indicated that examining what other sectors do in relation to climate change mitigation represents one of the last steps within the assessment guidelines but that it is often omitted due to limited time and resources. Since there are many other sectors involved in addressing climate change, this step can be challenging.
Engaging relevant municipal partners within the planned NWHU V&A Assessment

It was suggested that it is crucial to engage emergency management partners within the planned NWHU assessment. The assessment team indicated that some emergency management officials are already aware of the planned assessment and they look forward to further engaging them moving forwards. It was mentioned that an initial meeting on climate change from a municipal perspective had already taken place in Kenora and the planned assessment will build on this. Dr. Berry indicated that past assessments, such as the one conducted by the Middlesex-London Health Unit, engaged a wide range of partners during a workshop where preliminary findings were presented to seek partners’ views on implications for current programs and vulnerable groups. Many organizations that deliver services to vulnerable populations were present and able to share valuable perspectives. The assessment process will present many engagement opportunities for all relevant partners within the NWHU.

Addressing the challenge of examining health risks across a large geographic area that includes diverse communities such as the NWHU

Dr. Berry indicated that this is indeed difficult but that regional level data may be available to help fill in gaps. Connecting with a wide range of stakeholders and organizations is essential in receiving valuable input. In the past, workshops have been instrumental in bringing together partners and receiving input on diverse communities and populations. This challenge will need to be thought through but the results of the assessment will not only be useful to the NWHU but to other areas as well.

Specific health risks of concern to the NWHU and availability of data on impacts

Some participants drew attention to specific health risks of emerging concern to the NWHU. For instance, a participant indicated that there are potential health risks linked to the proliferation of blue-green algae due to the presence of neurotoxins and possible link to gastrointestinal infections. Another participant raised concerns over the ring of fire development in Algoma. The participant emphasized that the Boreal forest is the largest forest on Earth as well as a large carbon sink for Canada and that partners could work together towards protecting it.

In terms of identifying data on climate-sensitive health impacts specific to the population of the NWHU, Dr. Berry indicated that the Ontario toolkit includes a modeling report that may be of use to this assessment. Also, the upcoming national Climate Change and Health Assessment includes a number of research projects on a variety of topics including food security and mental health that could generate findings to inform the NWHU assessment. Researchers engaged in conducting the assessment will be looking for relevant data sets and able to shed more light on this later on during the assessment process.

Health Canada support for the NWHU climate change and health vulnerability and adaptation assessment

Health Canada will be available to provide guidance and technical expertise to the research team leading the NWHU assessment throughout the process. Since the NWHU may encounter challenges related to its large geographic area and diverse communities, Health Canada will be able to answer any questions the research team may have along the way and provide feasible solutions.
5.0 CLOSE OF THE WORKSHOP

On behalf of the NWHU and Health Canada we would like to thank all participants for attending and participating in the workshop meeting. The NWHU is open to receiving any further comments and/or questions that may arise in order to inform the planned assessment.

5.1 Evaluation

After the meeting all participants were invited to complete a short meeting evaluation. 14 of the 40 participants completed the evaluation. Overall the presentations succeeded in increasing knowledge on climate change and resulting health effects (Figure 4).

![Figure 4: perceived knowledge of climate change before and after the presentation.](image)

Both presentations were well received. Most respondents (Dr. Berry 86% n=12, Mr. Brown 93% n=13) either strongly agreed or agreed that the presentations met their expectations. 64% of respondents said they were likely to use the information they acquired and the other 36% were unsure. One respondent would have liked a little more detail on what these seemingly subtle changes in temperature do with regards to increasing frequency of more extreme events and another wanted to see more being done regarding the mitigation of climate change to prevent the effects the V&A Assessment is preparing for.

Responses were more mixed on if participants felt they had a chance to provide input into the health unit’s process / priorities related to the NWHU’s V&A Assessment. There was an emphasis among feedback to ensure that the engagement and input is ongoing due to the complexity of the topic. All respondents did say they knew how to connect with the health unit to provide further feedback.
6.0 NEXT STEPS

The input from this meeting will be used to inform the development of a draft report on climate change impacts relevant to northwestern Ontario and related potential health impacts, as well as possible health policies to address the impacts identified. In the meantime, the NWHU will continue to identify and engage relevant stakeholders to build relationships and address issues as appropriate.

The draft report on climate change and potential health impacts will be shared with stakeholders for discussion and feedback using a process still to be determined when it is available. That feedback process will also allow us to determine subsequent steps in partnership with the stakeholders involved.
APPENDIX A - AGENDA

Climate Change and Our Health in Northwestern Ontario

1:30 - 3:30 (Central Time)
November 1st, 2017

Agenda

1:30 - 1:35
Welcome
Dr. Kit Young-Hoon

1:35 - 1:45
Background
Erin Schillberg

1:45 - 3:00
Presentations
Climate Change and the Health of Canadians: Impacts and Adaptation in Northern Ontario – Peter Berry
Climate Change and Health Adaptation in Indigenous Communities – Daniel Brown

3:00 - 3:30
Discussion/Questions and Next Steps
Erin Schillberg

3:30 - 4:00
Presenters will be available for extra discussion (optional)
APPENDIX B – PARTICIPANTS LIST

Climate Change and Our Health in Northwestern Ontario Workshop

Thirty-seven (37) people participated in the session:
- Forty-eight (48) people (not including presenters) registered for the webinar. Twenty-five (25; 52%) of those people attended the session.
- An additional 12 people attended the session in person at the Northwestern Health Unit’s Kenora office. This included 2 community stakeholders and 10 NWHU staff.

Overall, 20 of the 37 participants were external stakeholders and 17 of the participants were NWHU staff.

<table>
<thead>
<tr>
<th>First Name</th>
<th>Last Name</th>
<th>Agency</th>
<th>email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brian</td>
<td>Norris</td>
<td>NWHU</td>
<td><a href="mailto:bnorris@nwhu.on.ca">bnorris@nwhu.on.ca</a></td>
</tr>
<tr>
<td>Carolyn</td>
<td>Charbonneau</td>
<td>unknown</td>
<td><a href="mailto:carolyn.charbonneau1@ottawa.ca">carolyn.charbonneau1@ottawa.ca</a></td>
</tr>
<tr>
<td>Christine</td>
<td>McLeod</td>
<td>NWHU</td>
<td><a href="mailto:cmcleod@nwhu.on.ca">cmcleod@nwhu.on.ca</a></td>
</tr>
<tr>
<td>Dana</td>
<td>Woods</td>
<td>unknown</td>
<td><a href="mailto:dana.woods@ontario.ca">dana.woods@ontario.ca</a></td>
</tr>
<tr>
<td>Jessica</td>
<td>Lam</td>
<td>Halton Region</td>
<td><a href="mailto:jessica.lam@halton.ca">jessica.lam@halton.ca</a></td>
</tr>
<tr>
<td>John</td>
<td>Cannan</td>
<td>Hastings Prince Edward Public Health</td>
<td><a href="mailto:jcanan@hpeph.ca">jcanan@hpeph.ca</a></td>
</tr>
<tr>
<td>Juliet</td>
<td>Rickard</td>
<td>Mocreebec</td>
<td><a href="mailto:juliet.rickard@mocreebec.com">juliet.rickard@mocreebec.com</a></td>
</tr>
<tr>
<td>Kaitlyn</td>
<td>Roen</td>
<td>NWHU</td>
<td><a href="mailto:kroen@nwhu.on.ca">kroen@nwhu.on.ca</a></td>
</tr>
<tr>
<td>Kara</td>
<td>Flannigan</td>
<td>Algoma Public Health</td>
<td><a href="mailto:kflannigan@algomapublichealth.com">kflannigan@algomapublichealth.com</a></td>
</tr>
<tr>
<td>Katie</td>
<td>Hayes</td>
<td>Health Canada</td>
<td><a href="mailto:katie.hayes@canada.ca">katie.hayes@canada.ca</a></td>
</tr>
<tr>
<td>Kerry</td>
<td>Whitney</td>
<td>unknown</td>
<td><a href="mailto:kerry.whitney@ontario.ca">kerry.whitney@ontario.ca</a></td>
</tr>
<tr>
<td>Kira</td>
<td>Fry</td>
<td>unknown</td>
<td><a href="mailto:kira.fry@ontario.ca">kira.fry@ontario.ca</a></td>
</tr>
<tr>
<td>Lindsay</td>
<td>Burry</td>
<td>NWHU</td>
<td><a href="mailto:lburry@nwhu.on.ca">lburry@nwhu.on.ca</a></td>
</tr>
<tr>
<td>Marielle</td>
<td>Verret</td>
<td>Health Canada</td>
<td><a href="mailto:marielle.verret@canada.ca">marielle.verret@canada.ca</a></td>
</tr>
<tr>
<td>Noor</td>
<td>Shahid</td>
<td>Ontario Ministry of Health and Long-Term Care</td>
<td><a href="mailto:noor.shahid@ontario.ca">noor.shahid@ontario.ca</a></td>
</tr>
<tr>
<td>Paddy</td>
<td>Enright</td>
<td>Health Canada</td>
<td><a href="mailto:paddy.enright@canada.ca">paddy.enright@canada.ca</a></td>
</tr>
<tr>
<td>Samantha</td>
<td>Jibb</td>
<td>NWHU</td>
<td><a href="mailto:sjibb@nwhu.on.ca">sjibb@nwhu.on.ca</a></td>
</tr>
<tr>
<td>Samantha</td>
<td>Pearson</td>
<td>NWHU</td>
<td><a href="mailto:spearson@nwhu.on.ca">spearson@nwhu.on.ca</a></td>
</tr>
<tr>
<td>Saralyn</td>
<td>Semeniuk</td>
<td>NWHU</td>
<td><a href="mailto:ssemeniuk@nhwu.on.ca">ssemeniuk@nhwu.on.ca</a></td>
</tr>
<tr>
<td>Tara</td>
<td>Saab</td>
<td>Grey Bruce Public Health</td>
<td><a href="mailto:t.saab@greybrucepublichealth.on.ca">t.saab@greybrucepublichealth.on.ca</a></td>
</tr>
</tbody>
</table>

Plus 5 individuals from the community, not associated with an agency, names withheld for privacy reasons.