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# Report on Climate Change and Health Vulnerability Assessments

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October 16, 2026

CELA Publication Number: 1722

# Table of Contents

Table of Contents ..... 2

Executive Summary ..... 3

1. Introduction..... 3

    Toolkit Framework ..... 4

    Overview of CCHVAs Completed to Date..... 4

    Framework Provided by the Ontario Climate Change and Health Toolkit ..... 5

2. CELA’s Recommendations ..... 14

3. Conclusion ..... 15

Appendix 1 – PHU CCHVA Publications ..... 16

## Executive Summary

The health and environmental effects of climate change continue to worsen across Canada, especially for vulnerable communities. Ontario Public Health Units have published climate change and health vulnerability assessments. In this report, we have examined the results of those assessments and make recommendations for Ontario Public Health Units as they continue to analyze the impacts of climate change on the people living in their communities.

### 1. Introduction

Climate change is quickly becoming one of the most devastating global issues to affect human health. Already, the effects of climate change can be seen globally – with record-breaking heatwaves and disastrous flooding events frequently making headlines. The effects of climate change will worsen as warming continues. The overall trend in national annual temperature from 1948 to 2024 has been an increase of 2.4°C.<sup>1</sup> 7 of the 10 warmest years on record in Canada have occurred during the last 20 years.<sup>2</sup>

Our current laws were not designed for this warming world. Some people in our communities have less capacity than others to respond and adapt to climate change and are more sensitive to climate change-related illness and death due to health or socioeconomic status. CELA's mandate includes protecting public health and the environment by seeking justice for those harmed by pollution or poor decision-making and by changing policies to prevent problems in the first place.<sup>3</sup> Under-resourced communities and under-served communities are not appropriately protected from the worsening effects of climate change.

This report amalgamates results from the Climate Change and Health Vulnerability Assessments (CCHVAs) conducted by Ontario Public Health Units (PHUs) to determine which communities have been identified as most in-need for climate change protection.

In 2016, the Ontario government published the *Ontario Climate Change and Health Toolkit*,<sup>4</sup> which was developed to help communities meet the public health challenges associated with climate change by conducting a Climate Change and Health Vulnerability Assessment (CCHVA).<sup>5</sup> In 2018, the government released the *Healthy Environments and Climate Change*

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<sup>1</sup> Government of Canada, "Temperature change in Canada" (last visited 29 July 2026), online: <[www.canada.ca/en/environment-climate-change/services/environmental-indicators/temperature-change.html](http://www.canada.ca/en/environment-climate-change/services/environmental-indicators/temperature-change.html)>

<sup>2</sup> *Ibid*; Government of Canada, "Climate Trends and Variations Bulletin – Summer 2025" (last visited 29 July 2026), online: <[www.canada.ca/en/environment-climate-change/services/climate-change/science-research-data/climate-trends-variability/trends-variations/summer-2025.html](http://www.canada.ca/en/environment-climate-change/services/climate-change/science-research-data/climate-trends-variability/trends-variations/summer-2025.html)>

<sup>3</sup> Canadian Environmental Law Association, "Our Mandate" (last visited 17 July 2025), online: <[cela.ca/our-mandate/](http://cela.ca/our-mandate/)>

<sup>4</sup> Kristie Ebi et al, "Ontario Climate Change and Health Vulnerability and Adaptation Assessment Guidelines" (2016), online (pdf): <[files.ontario.ca/moh-ontario-climate-change-health-guidelines-en-2016-08-01.pdf](http://files.ontario.ca/moh-ontario-climate-change-health-guidelines-en-2016-08-01.pdf)> [2016 Toolkit]

<sup>5</sup> *Ibid* at 5.

*Guideline* as part of the Ontario Public Health Standards.<sup>6</sup> The 2018 *Guideline* requires public health units to assess the health vulnerability status of their communities, and mandates that they consider using the *Toolkit* to guide the assessment.<sup>7</sup> As a result, municipalities across Ontario have published CCHVAs covering the steps outlined in the *Toolkit*.

## Toolkit Framework

The *Toolkit* establishes a number of actions under six broad steps to conduct a vulnerability and adaptation assessment:

1. Frame and scope the assessment
2. Describe current risks including vulnerabilities and capacities
3. Project future health risks
4. Identify and prioritize policies and programs to manage the additional health risks associated with a changing climate
5. Establish an alternative process for managing and monitoring health risks
6. Examine the potential health benefits and co-harms of adaptation and mitigation options

## Overview of CCHVAs Completed to Date

CCHVAs are completed by Ontario's Public Health Units (PHUs). There are 29 PHUs<sup>8</sup> across Ontario responsible for offering information and programs about healthy living and disease prevention.<sup>9</sup> CELA created this report to understand which populations are considered by public health authorities to be the most vulnerable to the impacts of climate change. We surveyed public health websites and, where necessary, reached out directly to PHUs to determine the status of their CCHVA.

As of August 2026, 23 of 29 PHUs have published CCHVA. However, fewer than half of the units completed all the steps outlined in the 2016 *Toolkit*. Several PHUs collaborated on regional CCHVAs. One PHU (Niagara Region Public Health) declined to publicly share their completed assessment. CELA reviewed a total of 16 completed CCHVAs.

All remaining PHUs currently have CCHVAs in progress. Two PHUs – Grey Bruce Public Health and Lambton Public Health - began their assessments after July, 2025. The Eastern Ontario Public Health Unit, Huron Perth Public Health, and the Renfrew County and District Health Unit did not respond to inquiries about status updates. The other PHUs with assessments in progress cited on-going research and/or delays due to recent restructuring and COVID-19.

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<sup>6</sup> “Healthy Environments and Climate Change Guideline, 2018” (last visited 08 27 2026), online (pdf): <[files.ontario.ca/moh-guidelines-healthy-environments-climate-change-en-2018.pdf](https://files.ontario.ca/moh-guidelines-healthy-environments-climate-change-en-2018.pdf)> [2018 *Guideline*]

<sup>7</sup> *Ibid* at 5.

<sup>8</sup> Prior to January 2025, there were 34 PHUs in Ontario. Several units have since merged.

<sup>9</sup> Public Health Ontario, “Ontario Public Health System” (16 June 2020), online: <[www.publichealthontario.ca/en/About/News/2020/Ontario-Public-Health-System](https://www.publichealthontario.ca/en/About/News/2020/Ontario-Public-Health-System)>

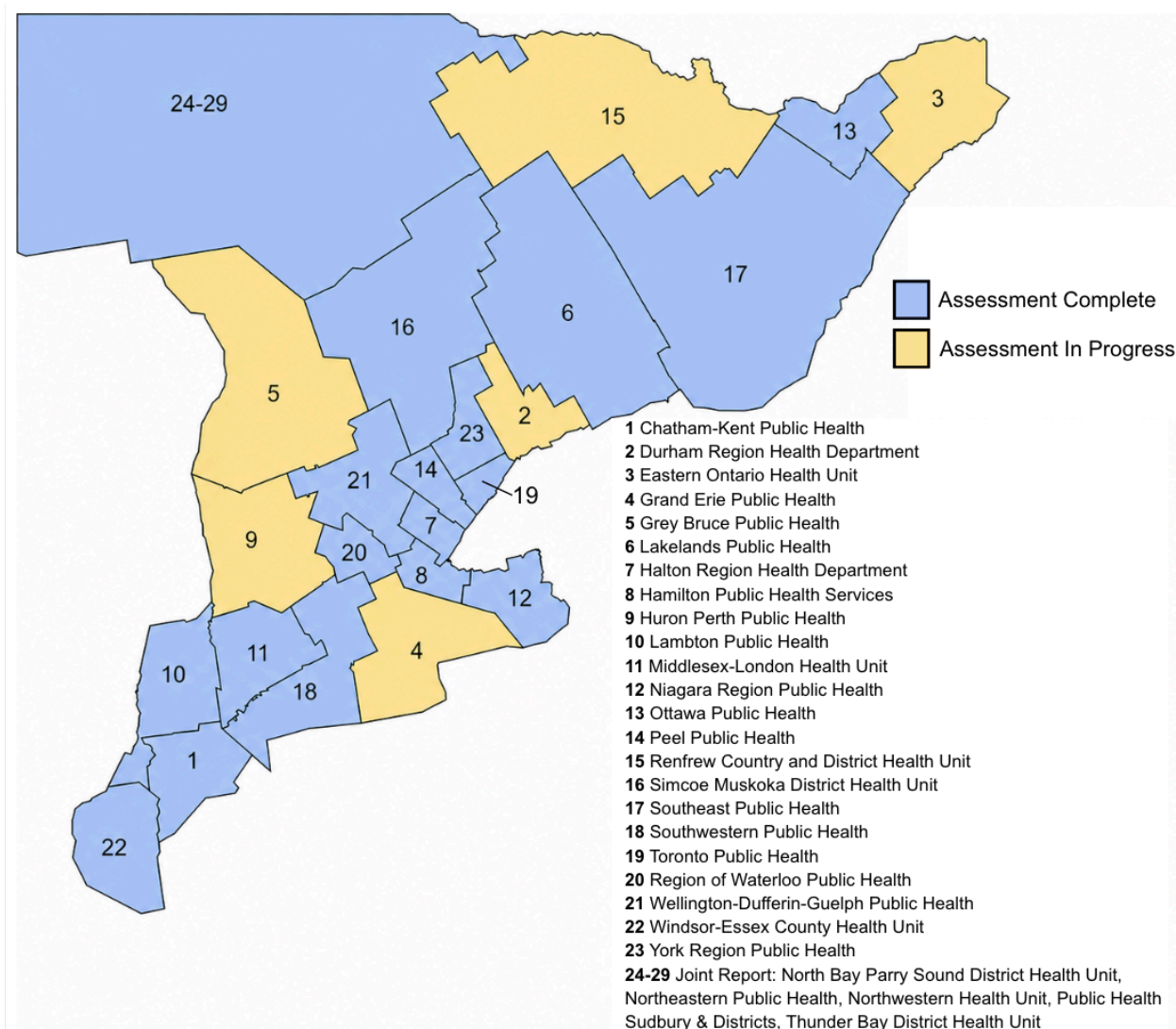


**Figure 1** Map of Climate Change and Health Vulnerability Assessment (CCHVA) completion by Ontario Public Health Units (PHUs), current to August 2026.

## Framework Provided by the Ontario Climate Change and Health Toolkit

### 1. Anticipated Climate Change Impacts in Ontario

The first step in the *Toolkit* is to frame and scope the assessment, including identifying the impacts of climate change that will pose a risk to the health and wellbeing of Ontario residents.<sup>10</sup> Table 1 displays climate-related hazards identified as impacting human health in each health unit.

<sup>10</sup> 2016 *Toolkit*, *supra* note 2 at 20.

**Table 1** Impacts of climate change identified by each completed Climate Change and Health Vulnerability Assessment.

| Public Health Unit    | Extreme Heat | Extreme Weather | Poor Air Quality | Food or Waterborne Illnesses | Vector-Borne Illnesses | Ultraviolet Radiation |
|-----------------------|--------------|-----------------|------------------|------------------------------|------------------------|-----------------------|
| Chatham-Kent          | ×            | ×               | ×                | ×                            | ×                      | ×                     |
| Lakelands             | ×            | ×               | ×                | ×                            | ×                      | ×                     |
| Halton                | ×            | ×               | ×                | ×                            | ×                      | ×                     |
| Hamilton              | ×            | ×               | —                | —                            | ×                      | —                     |
| Lambton               | ×            | —               | ×                | ×                            | ×                      | —                     |
| Middlesex-London      | ×            | ×               | ×                | ×                            | ×                      | ×                     |
| Ottawa                | ×            | —               | ×                | ×                            | ×                      | ×                     |
| Peel                  | ×            | ×               | ×                | ×                            | ×                      | ×                     |
| Simcoe Muskoka        | ×            | ×               | ×                | ×                            | ×                      | ×                     |
| Southeast             | ×            | ×               | ×                | ×                            | ×                      | ×                     |
| Southwestern          | ×            | ×               | ×                | ×                            | ×                      | ×                     |
| Toronto               | ×            | ×               | ×                | ×                            | ×                      | ×                     |
| Waterloo              | ×            | ×               | ×                | ×                            | ×                      | ×                     |
| Windsor-Essex         | ×            | ×               | ×                | ×                            | ×                      | ×                     |
| York                  | ×            | ×               | ×                | ×                            | ×                      | ×                     |
| Northern joint report | ×            | ×               | ×                | ×                            | ×                      | ×                     |

*Notes: Region of Waterloo Public Health completed their CCHVA jointly with Wellington-Dufferin-Guelph Public Health.*

*Data unavailable for Niagara Region Public Health (not publicly disclosed).*

*The Northern joint report encompasses Algoma Public Health, North Bay Parry Sound District Health Unit, Northeastern Public Health Unit, Northwestern Health Unit, Public Health Sudbury & Districts, and Thunder Bay District Health Unit.*

***Extreme Heat***

See Table 1. Identified as an impact in all 16 assessments.

- Extreme heat can cause heat-related illness, worsen pre-existing conditions, and increase vulnerability to infectious disease.
- In extreme cases, exposure to heat can result in death.<sup>11</sup>
- Hot weather can cause droughts which can kill crops, resulting in increased food insecurity due to supply shortages and/or increased costs.<sup>12</sup>

***Extreme Weather***

See Table 1. Identified as an impact in 14 assessments.

- Floods, tornadoes, and forest fires can cause injuries, death, severe mental health impacts, and property damage.<sup>13</sup>
- Increased ice storms during the winter months will result in power outages and unsafe road conditions.<sup>14</sup>

***Poor Air Quality***

See Table 1. Identified as an impact in 15 assessments.

- Common air pollutants already cause deaths; worsened air quality will lead to more.<sup>15</sup>
- Poor air quality increases the prevalence of respiratory and cardiovascular diseases and worsens allergies.<sup>16</sup>

***Foodborne and Waterborne Illnesses***

See Table 1. Identified as an impact in 15 assessments.

- Increased temperatures and rainfall allow for easier replication and survival of foodborne and waterborne pathogens.<sup>17</sup>

***Vector-Borne Illnesses***

See Table 1. Identified as an impact in all 16 assessments.

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<sup>11</sup> Waterloo Climate Institute, “Assessment of Health Vulnerability from Climate Change for Oxford County, Elgin County, and the City of St. Thomas” (May 2024), online (pdf): <[uwaterloo.ca/climate-institute/sites/default/files/uploads/documents/final-swph-vulnerability-assessment-report-may-2024.pdf](https://uwaterloo.ca/climate-institute/sites/default/files/uploads/documents/final-swph-vulnerability-assessment-report-may-2024.pdf)> at 18 [*Southwestern Report*].

<sup>12</sup> Region of Waterloo Public Health and Emergency Services and Wellington-Dufferin-Guelph Public Health, “Climate Change and Health Vulnerability Assessment for Waterloo Region, Wellington County, Dufferin County, and the City of Guelph” (2022), online (pdf): <[wdgpublichealth.ca/sites/default/files/2025-11/climate\\_change\\_and\\_health\\_vulnerability\\_assessment\\_report\\_0.pdf](https://wdgpublichealth.ca/sites/default/files/2025-11/climate_change_and_health_vulnerability_assessment_report_0.pdf)> at 104 [*Guelph-Waterloo Report*].

<sup>13</sup> *Southwestern Report*, *supra* note 12 at 8.

<sup>14</sup> *Guelph-Waterloo Report*, *supra* note 13 at 104.

<sup>15</sup> *Ibid* at 158.

<sup>16</sup> *Ibid*.

<sup>17</sup> *Ibid* at 15.

- Higher temperatures can shift the habitable range of vector disease carriers such as ticks and mosquitoes further north.<sup>18</sup>
- Increased heat supports growth of disease vectors.<sup>19</sup>

### ***Ultraviolet (UV) Radiation***

See Table 1. Identified as an impact in 14 assessments.

- Greenhouse gases deplete ozone, leading to increased UV exposure, which in turn causes skin cancer.<sup>20</sup>

## **2. Who is most at risk from climate change in Ontario and why?**

The next step in the *Toolkit* is to identify population groups that are particularly vulnerable to the effects of climate change.<sup>21</sup>

Vulnerability is assessed based on three factors: (1) exposure, (2) sensitivity, and (3) adaptive capacity. Exposure refers to the extent to which a community is exposed to climate hazards such as heat and natural disasters.<sup>22</sup> Sensitivity is the degree to which the community is affected by climate change.<sup>23</sup> Adaptive capacity is the ability to adjust to the effects of climate change.<sup>24</sup>

### ***People with Low Socio-Economic Status***

Every CCHVA that identified vulnerable populations found that low-income status was a key contributor to climate vulnerability. Low-income communities face greater risks because:

- Poverty intersects with other vulnerabilities, such as chronic health conditions and social isolation. People with low socio-economic status therefore have heightened sensitivity and reduced adaptive capacity to climate impacts.<sup>25</sup>
- Low-income communities often lack access to protective housing, cooling, clean air, and green spaces.
- Economic insecurity limits options for re-location, home improvements, or emergency preparedness, resulting in increased exposure to heat and other hazards.<sup>26</sup>
- Barriers like limited time, language access, and digital or health literacy reduce capacity to engage with protective services and public warnings.<sup>27</sup>
- Climate change tends to magnify existing inequities, further burdening low-income communities already facing systemic disadvantage.<sup>28</sup>

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<sup>18</sup> *Ibid* at 16.

<sup>19</sup> *Ibid*.

<sup>20</sup> *Ibid* at 14.

<sup>21</sup> *Supra*, note 4.

<sup>22</sup> *Supra*, note 6 at 6.

<sup>23</sup> *Ibid*.

<sup>24</sup> *Ibid*.

<sup>25</sup> *Guelph-Waterloo Report*, *supra* note 13 at 66.

<sup>26</sup> *Ibid*.

<sup>27</sup> *Ibid*.

**Table 2** Vulnerable populations identified by each completed provincial Public Health Unit's Climate Change and Health Vulnerability Assessment.

| Public Health Unit    | Low Socio-Economic Status | Older Adults and Young Children (>65 or <5) | Outdoor Workers | Newcomers to Canada | Indigenous Peoples | People Living with Chronic Health Conditions |
|-----------------------|---------------------------|---------------------------------------------|-----------------|---------------------|--------------------|----------------------------------------------|
| Chatham-Kent          | ×                         | ×                                           | ×               | —                   | —                  | ×                                            |
| Lakelands             | ×                         | ×                                           | ×               | ×                   | ×                  | ×                                            |
| Halton                | ×                         | ×                                           | ×               | —                   | —                  | ×                                            |
| Hamilton              | —                         | —                                           | —               | —                   | —                  | —                                            |
| Lambton               | —                         | —                                           | —               | —                   | —                  | —                                            |
| Middlesex-London      | ×                         | ×                                           | ×               | ×                   | —                  | ×                                            |
| Ottawa                | ×                         | ×                                           | ×               | ×                   | ×                  | ×                                            |
| Peel                  | ×                         | ×                                           | ×               | ×                   | —                  | ×                                            |
| Simcoe Muskoka        | ×                         | ×                                           | ×               | —                   | —                  | ×                                            |
| Southeast             | ×                         | ×                                           | ×               | —                   | ×                  | ×                                            |
| Southwestern          | ×                         | ×                                           | ×               | ×                   | ×                  | ×                                            |
| Toronto               | —                         | —                                           | —               | —                   | —                  | —                                            |
| Waterloo              | ×                         | ×                                           | ×               | ×                   | ×                  | ×                                            |
| Windsor-Essex         | ×                         | ×                                           | ×               | —                   | —                  | ×                                            |
| York                  | ×                         | ×                                           | ×               | ×                   | —                  | ×                                            |
| Northern joint report | ×                         | ×                                           | ×               | ×                   | ×                  | ×                                            |

*Notes: Hamilton Public Health Services, Lambton Public Health, and Toronto Public Health did not identify vulnerable communities. Region of Waterloo Public Health completed their CCHVA jointly with Wellington-Dufferin-Guelph Public Health. Data not disclosed for Niagara Region Public Health. The Northern joint report encompasses Algoma Public Health, North Bay Parry*

<sup>28</sup> Ibid.

*Sound District Health Unit, Northeastern Public Health Unit, Northwestern Health Unit, Public Health Sudbury & Districts, and Thunder Bay District Health Unit.*

### ***Older Adults (65+) and Young Children (<5)***

See Table 2. Identified as a vulnerable population in 13 assessments.

- Younger and older people have heightened sensitivity to climate hazards such as heat and air pollution.<sup>29</sup>
- Many elderly people have chronic health conditions, exacerbating their sensitivity to climate change.<sup>30</sup>
- Children and older adults are less able to sweat and have lower cardiac output, reducing their ability to adapt to higher temperatures and other effects of climate change.<sup>31</sup>

### ***Outdoor Workers (Inclusive of Migrant and Temporary Workers)***

See Table 2. Identified as a vulnerable population in 13 assessments.

- Prolonged exposure to heat, UV radiation, and poor air quality.<sup>32</sup>
- Many outdoor workers are migrant or temporary workers who may have precarious legal status, limited access to health and safety protections, and barriers to asserting their rights.<sup>33</sup>

### ***Newcomers to Canada***

See Table 2. Identified as a vulnerable population in 8 assessments.

- Lower average incomes, increasing their overall vulnerability for the same reasons as those with low socio-economic status.<sup>34</sup>
- Language and literacy barriers reducing access to services and warnings.<sup>35</sup>
- Challenges navigating public systems.<sup>36</sup>

### ***Indigenous Peoples***

See Table 2. Identified as a vulnerable population in 6 assessments.

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<sup>29</sup> Chatham-Kent Public Health Unit, “Health in a Changing Climate – Health Impacts and Vulnerabilities Related to Climate Change in Chatham-Kent” (February 2019), online (pdf) at 38. [*Chatham-Kent Report*] (available on request, see Appendix A)

<sup>30</sup> *Ibid* at 8.

<sup>31</sup> North Bay Parry Sound District Health Unit et al, “Climate Change and Health in Northern Ontario” (August 2022), online (pdf):

<[www.timiskaminghu.com/websites/timiskaminghu.com/files/Environmental%20Health/Climate%20Change%20and%20Health%20in%20Northern%20Ontario%20Report-EN.pdf](http://www.timiskaminghu.com/websites/timiskaminghu.com/files/Environmental%20Health/Climate%20Change%20and%20Health%20in%20Northern%20Ontario%20Report-EN.pdf)> at 23. [*Northern Ontario Report*]

<sup>32</sup> *Chatham-Kent Report*, *supra* note 29 at 7.

<sup>33</sup> *Southwestern Report*, *supra* note 12 at 26.

<sup>34</sup> *Southwestern Report*, *supra* note 12 at 26.

<sup>35</sup> *Ibid*.

<sup>36</sup> *Ibid*.

- Geographic remoteness — Many Indigenous communities, particularly in Northern Ontario, are already under-served and lack appropriate infrastructure, health care, and emergency services. Climate-related events (e.g., wildfires, floods, ice road loss) can further isolate these communities, delaying aid and disrupting essential supplies.<sup>37</sup>
- Food and water insecurity — Climate change disrupts traditional food sources through shifting animal migration patterns, changes in fish populations, and damage to ecosystems. It also increases risks to already precarious drinking water systems, some of which are under long-term boil water advisories.<sup>38</sup>
- Housing and infrastructure vulnerabilities — Aging or inadequate housing and community infrastructure are more exposed to damage from extreme weather, floods, permafrost thaw, and other climate stressors.<sup>39</sup>
- Cultural and spiritual impacts — Climate change threatens traditional lands, waters, and practices integral to Indigenous identity and well-being, deepening cultural loss and environmental grief.<sup>40</sup>
- Cumulative impacts of colonialism and systemic underinvestment — Climate change layers additional risk onto longstanding inequities stemming from colonial dispossession, governance challenges, and underfunding of services.<sup>41</sup>

### ***People Living with Chronic Health Conditions***

See Table 2. Identified as a vulnerable population in 13 assessments.

- People with respiratory illnesses such as asthma and COPD can be especially sensitive to poor air quality caused by pollution.<sup>42</sup>
- Individuals with weakened immune systems are more susceptible to vector-borne, foodborne, and waterborne illnesses.<sup>43</sup>
- Chronic illnesses can reduce adaptive capacity to deal with climate change as many people living with chronic conditions are dependent on caregivers, have mobility challenges, or have cognitive impairments.<sup>44</sup>

The results from Ontario's climate change assessments reveal that climate change is a human rights issue. Disadvantaged groups are more likely to experience negative health outcomes from climate change. The CCHVAs provide a more detailed and community-specific assessment of who is most impacted by the effects of climate change.

### ***3. Public Health Unit Policy Recommendations***

<sup>37</sup> *Northern Ontario Report*, *supra* note 31 at 22.

<sup>38</sup> *Ibid* at 30.

<sup>39</sup> *Ibid* at 26.

<sup>40</sup> *Ibid*.

<sup>41</sup> *Ibid* at 8.

<sup>42</sup> *Guelph-Waterloo Report*, *supra* note 13 at 144.

<sup>43</sup> *Ibid* at 138.

<sup>44</sup> *Ibid* at 18.

The *Toolkit* encourages the identification and prioritization of policies and programs which address the additional health risks associated with a changing climate.<sup>45</sup> Not all CCHVAs included policy recommendations.

***Peel Public Health made the following policy recommendations:***<sup>46</sup>

- Use the CCHVA as a foundation to begin broader discussions around public health vulnerability to climate change in Peel region.
- Share the report with stakeholders.
- Conduct consultation to better understand the social and cultural makeup of Peel region to inform programming and policy recommendations.
- Map vulnerable neighbourhoods.
- Continue to monitor health information to understand the impacts of climate change in Peel region.
- Research the intersection between mental health, health equity, and climate change.
- Develop an implementation plan to address vulnerabilities.

***Simcoe-Muskoka District Health Unit made the following policy recommendations:***<sup>47</sup>

- Develop and implement a stakeholder engagement plan.
- Prioritize actions based on current and future climate change conditions.
- Share results with other municipalities and collaborate with them on climate change planning processes.
- Create resources for community members to generate increased public awareness of the impacts of climate change.

***Southeast Health Unit made the following policy recommendations:***<sup>48</sup>

- Create an action plan to integrate climate change strategies into public health programming with the pillars of assessing and monitoring population health, health promotion, and health protection.
- A climate change action plan should (1) monitor and evaluate climate impacts, (2) prioritize health equity and local knowledge, (3) educate the community to strengthen

<sup>45</sup> *Supra*, note 4.

<sup>46</sup> Peel Public Health, “Assessing exposure, sensitivity, and adaptive capacity in Peel region – Update to the 2012 Report on health vulnerability to climate change” (January 2023), online (pdf): [peelregion.ca/sites/default/files/2024-05/climate-change-health-report.pdf](https://peelregion.ca/sites/default/files/2024-05/climate-change-health-report.pdf) at 84.

<sup>47</sup> Simcoe Muskoka District Health Unit, “A changing climate – Assessing health impacts and vulnerabilities due to climate change within Simcoe Muskoka” (September 2017), online (pdf): [www.simcoemuskokahealth.org/docs/default-source/topic-environment/smdhu-vulnerability-assessment-2017-finale1e3e25f97be6bc38c2dff0000a8dfd8.pdf?sfvrsn=0](https://www.simcoemuskokahealth.org/docs/default-source/topic-environment/smdhu-vulnerability-assessment-2017-finale1e3e25f97be6bc38c2dff0000a8dfd8.pdf?sfvrsn=0) at 8.

<sup>48</sup> Southeast Health Unit, “Climate Change and Health Vulnerability and Adaptation Assessment (CCHVAA) in the Southeast Health Unit Executive Summary” (June, 2025), online (pdf available by request): [southeastph.ca/health-topics/climate-change/](https://southeastph.ca/health-topics/climate-change/) at 15. (This report is an amalgamation of several reports by since-merged PHUs)

community capacity, (4) share knowledge, and (5) develop plans to identify and respond to future climate change trends and risks.

***Southwestern Public Health Unit made the following policy recommendations:*<sup>49</sup>**

- Develop a comprehensive risk reduction and prevention strategy for extreme weather.
- Review land use planning frameworks to implement climate adaptation interventions for vulnerable groups.
- Strengthen partnerships with community organizations including universities, the private sector, civil society organizations, and other groups to gain input on climate change action.
- Establish a monitoring program to continually assess climate change vulnerability in the region.

***Windsor-Essex County Health Unit made the following policy recommendations:*<sup>50</sup>**

- Use health impact data in a final climate change action plan.
- Community partners should support adaptive capacity and increase resiliency.
- Share the results of the CCHVA with local municipalities and other community members to continue collaborating in the planning process.
- Develop and implement a stakeholder and community education and engagement plan.
- Develop resources to support individuals in making personal choices to help reduce greenhouse gas emissions.
- Develop resources to promote awareness of the health effects of climate change.

***York Region Public Health*<sup>51</sup>**

York Region Public Health's report outlined both ongoing activities and opportunities to better address climate change.

*Ongoing Activities:*

- Environmental monitoring for extreme heat and cold events
- Health surveillance to monitor extreme heat and cold related illnesses and deaths
- Conducting surveys on extreme heat
- Considering extreme heat in urban planning, such as increasing tree colouring and roofing buildings with lighter coloured surfaces
- Establishing cooling shelters and warming shelters

<sup>49</sup> *Southwestern Report*, *supra* note 12 at 36.

<sup>50</sup> Windsor-Essex County Health Unit, "Climate Change and Health Vulnerability Report" (last visited 28 August 2026), online (pdf): < <https://www.wechu.org/sites/default/files/edit-resource/em-climate-change-vulnerability-report/ee-epidemiology-climatechangevulnerabilityreport122922020id70942.pdf> > at 56.

<sup>51</sup> York Region Public Health, "York region climate change and health vulnerability assessment" (last visited 01 August 2025), online (pdf): <<https://www.york.ca/media/93506/download?attachment>> at 76.

*Opportunities for Improvement:*

- Collect additional data on heat-related illnesses, including those that occur below heat event thresholds, such as mental health outcomes and sunburns
- Explore cool roofing and pavement options to increase thermal comfort
- Implement health equity considerations in policy and programming to better reach all vulnerable populations in the region
- Create extreme heat measures during power outages
- Develop health education measures for the general public and vulnerable groups regarding extreme heat and cold events
- Consider subsidizing air conditioning and fans for vulnerable people

Relatively few PHUs published policy recommendations as a part of their CCHVA. Among these PHUs, some reports identify very specific areas for action (i.e. exploring cool roofing<sup>52</sup>) whereas others only identify broad policy areas.<sup>53</sup> The absence of specific policy recommendations in the CCHVA does not mean that a PHU has not begun considering policy reform. However, CELA recommends including policy recommendations in the CCHVA, as recommended by the *Toolkit*, to provide a clear health basis for the recommendations.

## 2. CELA's Recommendations

Laws and policies in Ontario, and Canada, were not designed for a warming climate. Public health units have clearly identified the unfair and disproportionate burden of climate change on particular communities. Our laws and policies must change to prioritize the protection of those communities.

CELA recommends the following:

**Recommendation 1:** The Ontario government should amend the CCHVA guidelines to require their efficient completion and release.

All PHUs should both complete and publicly release a CCHVA. Several public health units have not completed their CCHVAs, despite being mandated to complete them since 2018. Although the guidelines clearly state that one of the main reasons for completing a CCHVA is to increase public awareness of the health impacts of climate change, the release of the finished assessment is not explicitly mandated.

**Recommendation 2:** PHUs should prioritize publishing their CCHVA and explain how they plan to use it to inform their work.

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<sup>52</sup> *Ibid.*

<sup>53</sup> *Supra*, note 60.

Each PHU formats their website and their assessments differently. Most PHUs have a dedicated section for environmental health. Some PHUs directly link those topics to climate change. Few PHUs directly link to their CCHVA. Some CCHVAs are only available via email request.

For example, the Windsor-Essex County Health Unit webpage outlines region-specific impacts of climate change, vulnerable populations, and how the health unit is responding; however, the CCHVA is not currently linked on the website.<sup>54</sup> Better organization and updates to these websites based on CCHVA findings further support increasing public awareness.

**Recommendation 3:** PHUs should conduct regular health impact assessments

Scientific understanding of the most pressing climate change risks continues to evolve. Public health units should update their assessments every five years to capture updates in the scientific literature regarding climate change. Regular updates to the CCHVAs would support better education in the community about the health impacts of climate change and better data collection.

**Recommendation 4:** PHUs should publish standardized assessment results

Each PHU is uniquely positioned to provide insight into its region of Ontario and should ensure information is published in a manner accessible for their communities. However, the broad assortment of publication styles makes it difficult to aggregate results and map patterns across the province. Additionally, standardizing the format results can clarify whether a PHU did not consider an impact or community or if results were insignificant.

**Recommendation 5:** PHUs should play a more active role in making policy reform recommendations.

Public health units are uniquely positioned to recommend reforms that will protect public health, especially for vulnerable groups. Only six reports included recommendations.

### 3. Conclusion

Climate Change Health and Vulnerability Assessments help to inform our understanding of the local impacts of climate change and who is most at risk. The findings must be more transparent and should be more frequently updated. The findings should also inform meaningful long-term strategies and detailed recommendations to better protect under-served and under-resourced communities.

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<sup>54</sup> Windsor-Essex County Health Unit, “Climate Change and Your Health” (2026), online: *Windsor-Essex County Health Unit* <[www.wechu.org/your-environment/climate-change-and-your-health](http://www.wechu.org/your-environment/climate-change-and-your-health)>

## Appendix 1 – PHU CCHVA Publications

| Public Health Unit                                                                                                                                              | Link CCHVA or related information                                                                                                                                                    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Joint Report: Algoma Public Health, North Bay Parry Sound, Northeastern Northwestern, Public Health Sudbury and Districts, and Thunder Bay District Health Unit | Available <a href="#">here</a>                                                                                                                                                       |
| Chatham-Kent Public Health                                                                                                                                      | Available by request; <a href="mailto:ckphucommunications@chatham-kent.ca">ckphucommunications@chatham-kent.ca</a> . Environmental health information available <a href="#">here</a> |
| Durham Region Health Department                                                                                                                                 | In-progress. Assessments published in series of reports; available <a href="#">here</a>                                                                                              |
| Eastern Ontario Health Unit                                                                                                                                     | In-progress. Climate change information available <a href="#">here</a>                                                                                                               |
| Grand Erie Public Health                                                                                                                                        | In-progress. Environmental health and safety website available <a href="#">here</a>                                                                                                  |
| Grey Bruce Public Health                                                                                                                                        | In-progress. Climate change information available <a href="#">here</a>                                                                                                               |
| Lakelands Public Health                                                                                                                                         | Available <a href="#">here</a>                                                                                                                                                       |
| Halton Region Health Department                                                                                                                                 | Assessments published in a series of reports; available <a href="#">here</a>                                                                                                         |
| Hamilton Public Health Services                                                                                                                                 | Available by request. Environmental health information available <a href="#">here</a>                                                                                                |
| Huron Perth                                                                                                                                                     | In-progress. Climate change information available <a href="#">here</a>                                                                                                               |
| Lambton Public Health                                                                                                                                           | Climate change dashboard available <a href="#">here</a>                                                                                                                              |
| Middlesex-London Health Unit                                                                                                                                    | Available by request. Climate change information available <a href="#">here</a>                                                                                                      |
| Niagara Region Public Health                                                                                                                                    | Declined to release publicly. Climate change information available <a href="#">here</a>                                                                                              |
| Ottawa Public Health                                                                                                                                            | Available <a href="#">here</a>                                                                                                                                                       |
| Peel Public Health                                                                                                                                              | Available <a href="#">here</a>                                                                                                                                                       |
| Renfrew County and District Health Unit                                                                                                                         | In-progress. Environment emergency information available <a href="#">here</a>                                                                                                        |
| Simcoe Muskoka District Health Unit                                                                                                                             | Available <a href="#">here</a>                                                                                                                                                       |

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| Southeast Public Health                                                                     | Available by request; submit requests <a href="#">here</a> |
| Southwestern Public Health                                                                  | Available <a href="#">here</a>                             |
| Toronto Public Health                                                                       | Climate change dashboard available <a href="#">here</a>    |
| Joint Report: Region of Waterloo Public Health and Wellington-Dufferin-Guelph Public Health | Available <a href="#">here</a>                             |
| Windsor-Essex County Health Unit                                                            | Available <a href="#">here</a>                             |
| York Region Public Health                                                                   | Available <a href="#">here</a>                             |