

Climate in the city: An environmental scan of climate resilience and health equity initiatives in the Greater Toronto Area

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Wellesley Institute advances population health and reduces health inequities by driving change on the social determinants of health through applied research, effective policy solutions, knowledge mobilization and innovation.

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Acknowledgment of Traditional Land

We wish to acknowledge this land on which Wellesley Institute operates. For thousands of years, it has been the traditional land of the Huron-Wendat, the Seneca and the Mississaugas of the Credit. Today, this meeting place is still the home to many Indigenous people from across Turtle Island and we are grateful to have the opportunity to work on this land.

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Background

Climate change is one of the most significant public health threats of this century, and it is increasingly emerging as a prominent policy issue in Canada and globally. It has particular implications for urban settings, where more than 80 per cent of the population in Canada live, due to their dense infrastructure, high populations and heat-trapping environments. Toronto, Canada’s largest city, experiences the highest frequency of extreme heat events in the country¹ and is among cities expected to see significantly more days over 30°C, longer heat waves and higher maximum temperatures by the end of the century².

Climate change affects everyone, but its impacts are not felt equally across all populations^{3,4}. A community’s vulnerability to climate change is heavily influenced by social and structural factors because those with fewer resources are less able to adapt^{5,6,7}. Groups most vulnerable to climate health risks include people experiencing homelessness, low-income and racialized communities, migrants, older adults and individuals with pre-existing health conditions^{5,7}.

“Climate change affects everyone, but its impacts are not felt equally across all populations.”

These groups often live in under-resourced areas and are more susceptible to environmental hazards, such as extreme heat, poor air quality and flooding⁸. These environmental conditions can worsen existing health issues and increase the risk of illness and death. For example, low-income communities, particularly in neighbourhoods lacking green space and adequate housing, face greater risks of heat-related illnesses and are more likely to experience respiratory issues due to increased air pollution^{9,10}. In addition, extreme weather events like flooding and storms can exacerbate health inequities, as equity-deserving communities often have fewer resources to prepare for or recover from such disasters.

Climate change resilience: The capacity to withstand, adapt to and recover from the adverse health impacts of climate change; a dynamic process shaped by three core dimensions: exposure to climate hazards, sensitivity to their effects, and adaptive capacity to respond effectively.

A population’s resilience refers to the capacity to withstand, adapt to and recover from the adverse health impacts of climate change¹¹. It is a dynamic process shaped by three core dimensions: exposure to climate hazards, sensitivity to their effects, and adaptive capacity to respond effectively¹¹. Key social determinants of health, such as access to stable

housing, healthcare services and supportive infrastructure, directly affect a population's level of resilience. As such, building climate resilience involves both reducing exposure and sensitivity to climate risks while enhancing the resources and capacities that enable adaptive responses.

Governments and communities are increasingly prioritizing resilience and adaptation strategies to protect populations from the worsening effects of climate change. There is also growing acknowledgement of health equity factors associated with climate adaptation and the importance of prioritizing the needs of vulnerable communities to address the inequitable health impacts of climate change^{12,13}.

In the Greater Toronto Area (GTA), community-based initiatives, often led locally, are playing a crucial role in promoting climate resilience. These initiatives can provide valuable context for identifying inequities, gaps and priorities, ultimately guiding more effective, equity-driven climate resilience efforts¹³.

Wellesley Institute conducted an environmental scan to identify and review current initiatives and strategies in Toronto that aim to build climate resilience in communities most at risk of climate-related health impacts. This scan provides a snapshot of current strategies, the social and health issues they focus on, and their approaches to equity-oriented community resilience.

Groups most vulnerable to climate health risks include:

- People experiencing homelessness
- Low-income and racialized communities
- Newcomers and migrants
- Older adults
- People with pre-existing health conditions

Methods

Informed by Shahid and Turin's stepwise approach to environmental scans¹⁴, this study examined literature, initiatives and strategies that aim to build climate resilience among equity-deserving populations in the GTA.

The scan aimed to explore and summarize the diversity of work underway in the GTA focused on building community resilience and adaptation, with an emphasis on health equity. Initial discussions with stakeholders working at the intersection of climate change and health equity helped define the scan's scope, research questions and data sources.

The primary research question in this environmental scan was: What research, strategies and initiatives have been developed and implemented in the GTA that aim to address or build climate resilience in communities most at risk of climate-related health impacts?

Secondary research questions were:

1. Who are the key actors in this work?
2. What health hazards do the climate resilience or adaptation initiatives aim to address?
3. What are approaches or key recommendations to building resilience?

Information was gathered through a document scan of grey and scholarly literature, including organizational reports, strategies and websites. Literature was identified through academic databases (PubMed, Scopus, Web of Science), Google and Google Scholar and select organizational websites.

Initiatives were included if they met the following criteria: a clear aim of climate equity or focus on communities most impacted by climate change in urban settings (i.e., racialized, low-income, people living with disabilities, newcomers and migrants, and older adults); a focus on resilience and adaptation at a community or population level; focus on GTA populations; and conducted within the past 10 years – the hottest decade recorded. Initiatives were charted onto a data extraction table to organize collected information.

Key informants were consulted to supplement the document scan. Informants were identified through purposive sampling and respondent-driven referrals^{15,16}. The consultations explored the identified initiative's goals, issues addressed, and overall approaches and key recommendations. Additional information collected was charted onto the data extraction table.

Content analysis was conducted for each initiative based on the research questions, capturing the title, description, type of initiative, key actors involved, and approaches or recommendations mentioned¹⁷. Analysis was guided by indicators from the Lancet Countdown: Tracking Progress on Health and Climate Change¹⁸, specifically Health Hazards; Health and Mitigation Co-Benefits; and Adaptation, Planning and Resilience

for Health. Originally used to track global adaptation and mitigation, these indicators served as an appropriate framework for organizing and interpreting this scan's findings. A full list of indicators is outlined in Appendix A.

Findings

The scan identified 68 initiatives that aimed to strengthen climate resilience in the GTA and that focused on equity-deserving communities. A total of 11 key informants were consulted, including leaders from environmental, health and service-based organizations (n=4), grassroots associations or groups (n=4) and scholars (n=3).

A diverse body of initiatives was identified. These can be categorized into three main types of initiatives, as outlined in Appendix B: Research-based initiatives (n=31), Community-based programs and groups (n=24) and Municipal strategies (n=13).

Research-based initiatives included case studies of pilot resilience projects, vulnerability assessments and emerging research labs and think tanks. Community-based initiatives varied, including projects that aim to improve community resilience to extreme weather events, food-based initiatives to promote food security and sustainable local food systems, and revitalization and retrofit programs to improve built environments and energy efficiency. Municipal strategies included local resilience or adaptation strategies, climate change plans with both mitigation and adaptation objectives, heat relief strategies and forest management plans. This category also included a public health strategy for climate change, and action reports detailing strategies acted upon to improve resilience through equitable distribution of green spaces and monitoring of climate-related health impacts.

The following sections are organized to synthesize data related to the research questions: key actors in equity-oriented climate resilience work; health hazards addressed by the initiatives; health and mitigation co-benefits highlighted through the initiatives; and key approaches or recommendations explored.

Key actors in local, equity-oriented climate resilience work

Four key actors were identified to play distinct yet interconnected roles in contributing to local climate resilience efforts in the GTA.

Firstly, **residents and resident groups** lead or are engaged in neighbourhood-based initiatives such as extreme weather response planning and implementation. Residents also participate in grassroots climate action, such as tree planting, urban gardening and advocacy for local policies that aim to enhance community resilience. Because of its equity focus, this scan captured resilience initiatives by equity-deserving groups, particularly Black and racialized communities, residents of low-income or high-rise communities, and youth.

Second, **community-based organizations**, including environment-focused organizations, play a key role in leading, coordinating and implementing resilience projects. They can

play a convener role, facilitating collaboration between local communities, governments and funding bodies.

Thirdly, actors representing **social infrastructure organizations** such as health and other service-based organizations were identified as contributing to efforts through their roles of addressing social determinants of health and supporting local communities through climate emergencies.

Lastly, representatives from **municipal governments and local public health authorities** develop climate adaptation strategies and aim to manage the infrastructure that can reduce climate risks for equity-deserving communities, such as flood mitigation systems and cooling centres. Public health agencies also play a key role in emergency preparedness, with the aim of bringing communities the resources they need to respond effectively to extreme weather events.

Health hazards addressed by resilience initiatives

Resilience initiatives aimed at addressing immediate climate risks and health hazards, including heat (HT), extreme weather (H&EW), housing (HS), and food security (F), were explored in this environmental scan.

Heat

A significant health hazard in urban settings is the impact of extreme heat, including risks of heat-related illnesses like heatstroke and dehydration. Several research-based initiatives help identify populations or areas most vulnerable to the impacts of extreme heat through heat vulnerability assessments (12-15) and studies examining inequities in tree coverage and green spaces (3,7,11,15-16,19-21,29-31). Through these initiatives, populations identified as vulnerable included older adults, those with chronic health conditions and residents of low-income neighbourhoods, particularly areas that do not have sufficient green infrastructure or tree canopy.

Many research-based and community-based projects addressed the impacts of extreme heat by supporting the increase of green spaces (or green infrastructure), highlighting its cooling benefits (7,11,15-16,19-21,23,32-34,36-37,41,45). Green infrastructure refers to networks of natural or semi-natural systems such as parks, green roofs, wetlands and permeable pavements which can have a range of environmental and social benefits. This includes urban canopies, which are layers of trees that provide shade, cool the surrounding environment, absorb air pollutants and reduce the urban heat island effect in a city.

[Park Perceptions and Racialized Realities](#) is a community-based participatory research project that explored how racialized residents experience public green spaces in the Jane and Finch and St. James Town neighbourhoods. In collaboration with the Jane/Finch Centre and the St. James Town Community Co-operative, 18 racialized residents went on over 35 green space visits, collecting more than 200 photos and videos.

Through debrief discussions, residents and community members described green spaces as vital for physical and mental relief during heat events, but many pointed to poor maintenance, limited tree coverage and overall inadequate cooling infrastructure in their neighbourhoods. They also noted how gentrification, rising costs and disconnection from planning processes serve as systemic barriers to climate resilience.

The project emphasized lived experience, participatory analysis and community-led recommendations as vital to addressing climate-related health risks and local preparedness for extreme weather events.

Research exploring inequities in green spaces describes that “under-natured” areas are often in low-income neighbourhoods that face systemic barriers, including lack of funding, increasing gentrification and limited community involvement (7,11,16). Still, targeted programs were identified that bring green infrastructure to these neighbourhoods. Examples include the Toronto and Region Conservation Authority’s Sustainable Neighbourhood Action Program (SNAP) (32) and its Growing Healthy Towers project (34), which focus on revitalizing older urban areas and tower communities by integrating outdoor greening, stormwater management, and urban gardening and agriculture.

In addition, most municipal strategies have objectives of expanding green spaces and coordinating emergency responses to ensure cooling spaces and resources are available to at-risk communities during heat waves (56-59,64,65-67). Other strategies focus on integrating green infrastructure into long-term urban planning to mitigate heat risks (60-61,68).

Extreme weather-related events

Forty-six initiatives incorporated a focus on preparedness for or resilience against health and extreme weather-related events, including public health emergencies (1-11,13-18, 23-27,31-33,36-39,42-43,47-49,53,55-59,61,63-68). The importance of identifying local assets and resources (e.g., social infrastructure), strong community networks and the development of local emergency response plans was emphasized among these initiatives. Research and community-based initiatives specifically highlight the importance of emergency preparedness training and skill-building, and participatory leadership that involves a collaborative approach to decision-making across diverse stakeholders to encourage resident involvement and ownership in the activities.

Housing

The issue of housing was also recognized as a significant health hazard in the context of climate resilience. Research initiatives help to describe the impacts of homelessness and inadequate housing conditions, such as in aging tower buildings, which may pose risks for equity-deserving people exposed to climate events (1-2,6,8,12-18,24). Several community-based initiatives focused on revitalization projects in low-income neighbourhoods and vertical communities (32,34-35), including retrofit programs (36-37). Within these initiatives, there was a significant focus on advocacy efforts to increase access to housing, improve living conditions and enhance retrofit efforts.

Food security

The final health hazard explored in this scan is a focus on food insecurity and undernutrition, which is exacerbated by climate-related disruptions or barriers to food access¹⁸. Several initiatives in this scan had a focus on food security as part of their efforts to address climate resilience (2-3,7-8,13-15,17,20,27,33-34,36-37,41-42,44,48-52,54-55, 58-59,62-64,65-66). Thirty-two initiatives explored and encouraged improved access to nutritious food and local produce through promoting local food systems (community gardens, local markets) (20,36-37,41,44) as well as local advocacy and urban planning that calls for or incorporates improved food security in equity-deserving communities (3,8,17, 33-35,40-42,49-52). In addition, municipal strategies also describe the importance of sustainable agriculture and local food systems in climate adaptation plans (58-59,62-65, 67).

Health and mitigation co-benefits

In addition to the focus on direct health risks of climate change, resilience initiatives also bring additional benefits to health outcomes and mitigation efforts through their impacts in social and environmental domains, called co-benefits¹⁸. For example, strategies like expanding green spaces, improving air quality and promoting access to sustainable transportation not only help communities adapt to climate impacts but also support healthier lifestyles, reduce chronic diseases and enhance overall well-being¹⁹. These co-benefits can also contribute to climate mitigation by lowering greenhouse gas emissions and encouraging sustainable practices¹⁹.

This scan explored the following co-benefits: energy use and generation (Energy), air pollution (Air), food and agriculture (Food), tree cover loss (Tree), and social equity (Social Equity).

The scan identified 36 initiatives that highlight co-benefits in energy systems and health which can reduce carbon emissions and energy costs. This includes studies and projects

that focus on revitalization and retrofitting of homes and buildings, which not only aim to improve resilience against extreme heat but can also improve energy efficiency (12,32, 34,36-42). Some initiatives also promote the use of and access to sustainable and healthy transportation options such as public transit, cycling and regular group walks (23,30-31, 46,48).

The scan identified 22 initiatives that highlighted co-benefits in air quality (2,7,11,13,15, 19-20,22,27-29,31,41,45,49,55,58,60-61,63,66,68) and 20 linked co-benefits in tree cover (7,11,15-16,19-23,25-28,32,36-37,40,45,60-61). These two categories overlapped greatly with each other. The air quality and tree initiatives included a focus on increasing potential carbon reserves through green infrastructure and urban canopy while improving a community's exposure to cleaner air. Some of these initiatives also had the aim to restore the ecological integrity of natural spaces while fostering a sense of connection to nature and improving knowledge about land stewardship. These activities included tree planting (37,40,45), food growing (40-41,44), and groups that conduct community clean-ups (50). Uniquely, a youth mental health program explored potential benefits of reconnecting with the land and wider community, with a focus on addressing climate distress through place-based clinical support (43).

A total of 31 identified resilience initiatives discussed food security or potential impacts to food access (2-3,7-8,17,20,24,27,31-34,36-37,40-42,44,48-55,58-59,62-64,65-66), especially for equity-deserving communities that often lack access to healthy and cultural food options. For instance, community-based initiatives such as, FoodShare Toronto's Community Food Growing programs (44), Scarborough Environmental Association's grocery asset maps (50) and Jane/Finch Centre's Green Change program (41) highlighted the importance of access to cultural foods and staples. Similar programs also discussed the potential benefits of local and sustainable compost and agriculture systems that can reduce carbon emissions of food production (34,37-38,40,44).

[FoodShare Toronto's Community Food Growing programs](#) are a community-based initiative that aim to strengthen local climate resilience by addressing food insecurity, promoting sustainable agriculture and building social equity in Black, Indigenous, racialized, low-income and newcomer communities. Programs such as School Grown, community composting, and the Flemo Farm provide culturally relevant fresh produce alongside tools, training and growing spaces that support community-led food sovereignty. Beyond resilience, these initiatives also have climate mitigation, health and equity co-benefits. They improve access to nutritious and cultural foods and support mental well-being through hands-on gardening while also bringing environmental benefits through local food production and composting.

An added indicator in the analysis was social equity, involving factors that can contribute to co-benefits of increased social capital²⁰, social connectedness²¹, community building, equitable distribution of resources, and racial equity. The scan identified 59 initiatives that addressed co-benefits related to social equity. These initiatives emphasized the importance of making key services and resources more accessible to communities, such as energy-efficient retrofits (12,36-40), green spaces (7,16-17,27,28-33,45), and food and food growing opportunities (32,36-37,40-41,44,48,50-52,54).

Other initiatives discussed the importance of building capacity through equipping communities with the tools (data and asset mapping skills) to understand their climate risks, take action and advocate for improved socioeconomic contexts (3,8-9,17,32-33,41-42, 47-53,55). One notable resource is the Community Workbook for Climate Resilient High-Rise Neighbourhoods (55), co-developed by residents of St. James Town along with Community Resilience to Extreme Weather (CREW). The workbook provides tools, strategies and guidelines for high-rise communities to take stock of their assets and needs, and take proactive steps to prepare for climate challenges.

The [Community Workbook for Climate Resilient High-Rise Neighbourhoods](#) is a practical, accessible toolkit designed to support grassroots preparedness for climate risks such as heat waves and power outages that are often amplified in aging, vertical housing. The workbook was co-developed by St. James Town high-rise residents, along with Community Resilience to Extreme Weather (CREW), and guides users through key steps such as mapping local assets, understanding systemic barriers, organizing community groups, and developing and testing emergency plans.

The workbook emphasizes capacity-building within disadvantaged communities that are most impacted by climate risks, aiming to equip residents with practical tools, knowledge and leadership skills to prepare for extreme weather events and other climate-related challenges. In addition to its role in fostering preparedness, the initiative supports health and social equity co-benefits by promoting social connection, enhancing mental well-being, and encouraging resident-led, locally tailored solutions. It demonstrates that climate resilience is strongest when those most affected by systemic inequities are empowered to lead change within their own neighbourhoods.

A few initiatives show how advocacy and policy action are important for promoting social equity and improving conditions that support community resilience (1-10,12,16-17,20-27, 33,41, 47,49-53). Some focus specifically on how systemic inequities exacerbate the impacts of climate change. These initiatives highlight that building climate resilience requires addressing determinants such as precarious housing and homelessness (2,6,12, 16), transit (2,23,41,50), food insecurity (41,44,51-52), poverty (2,27) and systemic racism (2,4-5,41,44,50).

Resilience planning, approaches and recommendations

The following subsections describe approaches applied or recommended by the identified resilience initiatives. These are organized according to the three indicator categories in the Lancet Countdown report¹⁸, which focus on actions that increase resilience and protect populations from climate risks:

1. Assessment and planning of health adaptation
2. Enabling conditions, adaptation delivery and implementation
3. Changing vulnerabilities, health risks and resilience to climate change

1. Assessment and planning of health adaptation

The first indicator category focuses on local assessments of climate change risks and resilience plans informed by these assessments. Vulnerability assessments have been conducted by three identified municipalities to evaluate the risks and adaptive capacity of equity-deserving groups in response to climate hazards such as heat, poor air quality and extreme weather events (13-15). Additionally, community-led assessments have been facilitated through the Toronto and Region Conservation Authority's Sustainable Neighbourhood Action Program (SNAP) for older urban neighbourhoods in the GTA (32,36-37,40). Other studies have examined specific inequities contributing to climate risks, including heat exposure (12), green infrastructure (11,16,19-21,24), flood risks (24-26), poor air quality (22) and poverty (27), with some initiatives using spatial analyses to visualize vulnerabilities and assets, such as GIS-based projects that help identify areas at higher risk of heat stress in Toronto and Peel (28-29).

[Heat-proofing community housing: Prioritizing extreme heat adaptation for vulnerable Canadians](#) is a 2023 report underscoring the urgent need to address the disproportionate heat-related health risks faced by residents of community housing. Drawing on case studies, including from Toronto, the report identified practical and policy-based opportunities to improve the livability and climate resilience of these settings. It emphasizes the importance of coordinated, equity-focused vulnerability assessments and adaptation strategies, offering four key recommendations:

1. Developing heat response plans tailored to tenants.
2. Adjusting government policies, codes and funding to better protect tenants.
3. Investing in holistic land use and urban design strategies to reduce urban heat island effects in the long-term.
4. Encouraging private investment in climate-resilient housing.

This initiative highlights the critical role of climate risk assessments in protecting at-risk populations and advancing health-centred climate adaptation.

Some vulnerability assessments inform local resilience and adaptation plans, with a focus on identifying and prioritizing populations most vulnerable to health risks. Municipalities and regional authorities in Toronto, Peel, York and Durham have developed climate action plans that focus on responding to climate-related events not only address physical infrastructure and emergency preparedness but also emphasize health risks and the need for targeted responses for those most vulnerable to climate impacts. For example, strategies share a focus on addressing extreme heat events, with some localities implementing heat relief measures, such as cooling centres (57,66) and targeted weather alerts (58,65-66).

2. Enabling conditions, adaptation delivery and implementation

The second indicator category describes elements that support effective implementation and delivery of health adaptation and resilience initiatives¹⁸. This section categorizes themes according to the following elements: adaptation-enabling conditions, delivery and implementation mechanisms, and climate and health information and education.

Adaptation-enabling conditions

Conditions that enable adaptation are important to develop or build on to enhance climate resilience¹⁸. The scan found certain conditions that initiatives focused or acted on included housing conditions, green infrastructure, neighbourhood resources and social infrastructures.

Housing quality and homelessness

Homelessness and housing quality were identified as key areas of focus for 30 identified research and community-based initiatives (1-2,6,8,12-18,21-27,32-37,40,42,47,49-50,55) and six municipal strategies (56-58,60,63,66). Poor housing conditions – usually found in community housing or vertical buildings in low-income neighbourhoods – make tenants more vulnerable to climate risks such as extreme heat. This suggests a need for heat-proofing and retrofits to ensure homes are adequately prepared to withstand future climate risks (6,12). One paper that explored climate risks for homeless populations also found that prevention-oriented measures such as providing affordable housing and retrofitting are more effective and cost-efficient than crisis-response models commonly used to support people experiencing homelessness (6). Similarly, several community-based initiatives also focus on improving housing conditions in vertical and older buildings to improve climate resilience and energy efficiency (32,36-40). These programs also mention the importance of ensuring these retrofit opportunities are accessible and affordable to equity-deserving communities.

Urban green space and green infrastructure

Green infrastructure was another prominent theme across several initiatives, underscoring the vital role of green spaces in mitigating urban heat island effects, improving air quality and providing communities with a cooling resource (7,11,16,19-23,26-31,34,36-37,40-41). The types of green infrastructure explored in this scan included parks, urban tree canopy, green roofs, permeable pavements and community gardens, which all play a key role in enhancing various aspects of climate resilience, mitigating climate hazards while improving social connectedness, food security and general mental well-being.

Some studies identified that the distribution of tree cover in the GTA remains inequitable, calling for expanding green infrastructure in low-income and racialized communities as key to ensuring equitable climate resilience (11,19,22,26). One report, *Pathways to Living Cities*, provides a framework to apply anti-oppressive, trauma-informed and data-driven approaches to identify “under-natured” areas and improve the use of green spaces to address broader social issues such as food security (11). To address such inequities, the paper recommended the application of the 3-30-300 rule, whereby every person has access to a high-quality park or green trees within a 300-metre radius, and there is a minimum 30 per cent canopy cover in all neighbourhoods²².

Sustainable strategies to expand green spaces have also been proposed at the municipal level, with a focus on incorporating green roofs and permeable pavements in the development of infill housing in underserved areas (60). These initiatives aim to foster resilience by improving both environmental and social conditions, particularly for communities with limited access to these resources.

Neighbourhood resources and social infrastructure

Accessible and robust neighbourhood assets, resources and social infrastructure were also identified as important factors for supporting community resilience. The availability of social infrastructure – including community organizations, parks, public health and emergency services – was described as necessary to ensure communities are well supported and equipped with the resources they need to be resilient (1,8-10,16-18,23,27, 32-34,36-37, 41-44,47-50,56-57,63,65,67). Community hubs were highlighted as key to catalyzing climate action by providing a physical space for communities to gather, plan and deliver adaptation and sustainability programs (17,33,35,43), including mental health services (43). A feasibility study that explored the role of community hubs identified they could facilitate meaningful resident engagement and cross-sectoral collaboration, emphasizing the need to improve the resourcing of such community spaces (17).

[Community Hubs and Climate Change: A Feasibility Assessment](#) by Toronto Environmental Alliance and local partners examined the potential of community hubs to serve as local catalyst spaces for climate action and resilience. As local and accessible “one-stop” service centres, hubs can be uniquely positioned to engage residents, particularly in equity-deserving communities, in practical climate solutions. The assessment found that many hubs in the GTA already support climate initiatives, such as community gardens and energy-efficient retrofits. However, stakeholders identified key challenges, including limited resources, lack of coordination between hubs, and the need for sustained support to scale up their climate impact. This initiative highlighted how locally rooted spaces can play a vital role in climate resilience and education, provided they receive the necessary funding and government support.

Delivery and implementation mechanisms

In addition to improving and enhancing structural conditions that enable climate resilience, initiatives also focused on certain approaches to delivering and implementing adaptation efforts in ways that prioritize contexts of equity-deserving communities.

Community-driven and equity-centred approaches

An emphasis on community-driven and community-informed approaches was evident across identified initiatives. The scan identified several research and community-based initiatives that were either started by communities themselves (46-52,54) or involved direct participation of residents in activities such as in data collection or vulnerability assessments, resilience planning and implementation (17,32-37,41-42,55). A few municipalities have also noted community engagement in the development or implementation of their climate resilience strategies (56,58,60,62,66), including processes such as regular feedback mechanisms to identify and address specific needs within these communities.

It was emphasized that local engagement and community-driven actions are essential levers for implementing initiatives and building local resilience (1,3,6,8,11,16-17,32-37, 41-42,44-52). Notably, community-driven efforts such as Toronto Community Housing Corporation’s Planting and Stewardship Program (45) aim to empower residents in racialized or low-income communities to take ownership of local greening projects such as tree planting, park revitalization and community gardens, which offer not just environmental benefits, but can also positively impact mental health, employment and social cohesion.).

Several initiatives highlighted the need to ensure communities, particularly underserved groups such as racialized (4-5,11,16-17,32-34,41-42,44-45,47-52), 2SLGBTQ+ (8), low-income

(11,32-34,41-42,44-45,47-52) and Indigenous communities (11,44,49,62,64,66), are not only included in resilience planning but are also empowered to take leadership roles. Importantly, it was highlighted that these communities have long been left out of mainstream climate or disaster efforts. For example, The 519's report, *Framing Queer Resilience and Climate Justice*, provides a reminder that disenfranchised communities such as 2SLGBTQ+ groups have historically relied on ad hoc efforts and informal mutual aid networks to support each other during emergencies (8).

The 519's report, [Framing Queer Resilience and Climate Justice](#), underscores the critical role of community-driven and equity-centred approaches in climate resilience and adaptation, particularly for 2SLGBTQ+, racialized and low-income communities. The report identified key strategies for strengthening community resilience, including asset-mapping and collaboration, community knowledge and leadership, advocating for climate justice, cultivating connected communities and promoting all-hazards preparedness.

Importantly, the report highlighted how historically marginalized groups, especially 2SLGBTQ+ communities, have often been excluded from formal climate and disaster planning processes. In response, many have relied on informal mutual aid networks to navigate crises. Highlighting these responses as legitimate and effective forms of resilience, the report calls for adaptation strategies that are participatory, grounded in lived experience, and designed to empower communities as co-leaders in climate response efforts.

While equity-deserving groups are often under-represented in planning, the scan identified initiatives where communities have leading roles in resilience interventions and where participatory models that centre lived experiences are emphasized. For example, participatory and inclusive planning processes in adaptation planning are noted by some reports as essential to ensuring resilience solutions are grounded in the contexts, experiences, knowledge and perspectives of affected communities (1-2,7-12,16-17,23,27).

Targeted strategies for equity-deserving groups

The identified initiatives affirmed the need for targeted strategies to support equity-deserving communities most at risk from climate impacts, such as racialized and low-income neighbourhoods, older adults, people experiencing homelessness, and those with pre-existing health conditions. Additionally, many initiatives focused on smaller-scale, local contexts, which allowed for a better understanding of local assets and needs in building community resilience.

Incorporating health considerations into broader climate strategies was emphasized in initiatives focused on the role of public health in resilience planning (13-14,20,23,57-59).

These initiatives called for a more systematic approach to addressing the relationship between climate change and health risks, enabling the development of strategies that not only mitigate environmental hazards but also improve social and health outcomes for communities most vulnerable to the impacts of climate change.

Collaboration and coordination

Another mechanism that crosscuts most identified initiatives is the importance of collaboration, recognizing that building community resilience requires the collective effort of residents, community organizations, health and social services, researchers and think tanks, municipalities and other key stakeholders. For example, the Toronto and Region Conservation Authority's Sustainable Neighbourhood Action Program (32) facilitates collaboration between municipalities and community stakeholders to develop resilience strategies. These include the Growing Healthy Towers initiative (34) and the San Romanoway Towers Revitalization Project (36), which involve collaboration between residents, local organizations and businesses to implement resilience projects or address local issues.

Cross-sector partnerships were also highlighted as key for effective coordination and consideration of different dimensions in large-scale emergencies. For example, the Connected Communities Approach (9-10) emphasizes a collaborative model that facilitates relationships between residents, institutions and government bodies^{23,21}. This model was used to describe how a local community organization in Scarborough was able to facilitate an effective community response to COVID-19 by leveraging connections with residents, municipal bodies and other local organizations (10).

The **Connected Communities Approach** highlights the importance of cross-sector collaboration and trust-based relationships between residents, community organizations, institutions and governments in strengthening community resilience^{23,21}. This model was explored during the COVID-19 pandemic through the work of East Scarborough Storefront, a community organization in Scarborough that facilitated coordinated local emergency responses by leveraging community networks and institutional partnerships. Through this project, it was emphasized that resilience is most effective when rooted in collaborative infrastructure, aligning with broader calls for integrated, equitable strategies that bring together diverse stakeholders to address both immediate and long-term crises.

Across municipal climate strategies, there is also a clear recognition of the need for coordinated action across city divisions, public health agencies and community organizations to ensure that resources and interventions are equitably delivered. Such collaborative efforts leverage resources, knowledge and networks from different sectors to address both immediate and long-term needs.

Climate justice

Many initiatives emphasized that climate resilience efforts must go beyond environmental concerns and integrate health, social and equity considerations, reflecting the broad and complex impacts of climate change on communities (1-10,12,16-17,24,30,38,44,46-50). Specifically, initiatives that address co-benefits related to social equity importantly highlight that community resilience is a social and climate justice issue (1,3-5,7-8,24-26,30,38,41,48,50).

A series of papers (24-26) provided a thorough definition of climate justice as the fair and equitable distribution of the burdens and benefits of climate change impacts and adaptation. The papers acknowledged and addressed the historically rooted and structurally reinforced inequalities that cause marginalized communities to be more vulnerable to climate hazards, such as flooding, and to have less capacity to recover and adapt. It challenges the way climate adaptation strategies (like urban land use planning) often prioritize economic interests such as real estate and infrastructure investment over the needs and rights of disenfranchised and vulnerable populations, thereby reproducing or exacerbating inequitable vulnerabilities.

Similarly, some identified initiatives emphasize the need to address systemic inequities that create disparities in climate-related health risks such as environmental racism (4-5,39), a form of systemic racism that creates inequitable distribution of environmental harms that worsen health and well-being outcomes of racialized communities⁸. As such, inclusive and equity-oriented approaches were encouraged, such as applying anti-oppressive approaches to green infrastructure and flood protection planning (7,16,24-26), increasing access to culturally relevant food options (41,47,48), and using trauma-informed methods to address mental health impacts of climate change (40).

Climate information and training

Some initiatives highlight or incorporate the importance of data, information services and education in addressing the health impacts of climate change. First, several research- and community-based initiatives recommend or use data to guide equity-oriented resilience activities, including green infrastructure planning (7,20,25-26), mapping of resilience assets and local resources (3,8,25,27,30-31,49-50), and vulnerability assessments (15). Identified research think tanks also focus on studying the health risks and resilience among equity-deserving populations (1-4), thereby enhancing the knowledge base on the equity impacts of climate change.

Resilience strategies at the municipal level outline efforts to ensure climate-related health information, including local climate risks and weather or disaster alerts, are communicated to equity-deserving populations (57-58,65-66). For example, the Durham Community

Climate Adaptation Plan (65) includes a Vulnerable Persons Registry for their Extreme Weather Alert and Response System to proactively communicate emergency alerts to groups identified as most vulnerable during climate events (e.g., older adults, isolated individuals, and people with pre-existing medical conditions).

The [Durham Community Climate Adaptation Plan](#) emphasizes the use of localized climate data, targeted communication strategies and cross-sector coordination to address the health and safety needs of vulnerable populations during climate-related emergencies. The plan integrates public education, emergency preparedness and sector-specific resilience efforts to build long-term community capacity to adapt to the changing climate. Notable components include:

- **Vulnerable Persons Registry:** Supports an Extreme Weather Alert and Response System to proactively communicate with populations at higher risk, including older adults, isolated individuals and those with pre-existing health conditions.
- **Cross-sector coordination:** Collaborates with other municipalities and sectors such as the region's Food Security Task Force and the agricultural sector to address regional food resilience and climate adaptation in farming.
- **Data-informed strategies:** Align with broader initiatives such as [Durham's Managing Urban Heat Islands Strategy](#), using climate data and vulnerability mapping to guide targeted interventions.
- **Public education and preparedness:** Build public climate literacy and response capacity across communities through accessible information, risk communication and inter-municipal planning.

Other initiatives discussed the importance of access to health information and equipping communities with the capacity, skills and tools they need to understand their climate risks, take action and advocate for improved socioeconomic contexts (3,17,41-42,47-52). These include tools that help identify local assets and climate risks (3,8,30-31), such as the research lab, Climate Resilient Communities, which aims to equip communities with data and policy advocacy skills to support their own climate adaptation (3).

Other initiatives also seek to actively gather and mobilize communities to discuss local priorities as well as adaptation plans in the long-term and during emergency events (17,33,42,47,55). These initiatives incorporate workshops and trainings for activities such as emergency planning, urban gardening and nature stewardship with the aim of developing local skills for addressing climate-related issues such as extreme weather events, stormwater management and food security. Initiatives like the Accelerating Climate Action Through Community Hubs (33) and Building Climate Resilience in Black

Communities (42) highlight the importance of leadership development and climate literacy, creating spaces where community members can learn, organize and advocate for climate action that reflects their needs.

Funding and investment for health adaptation

Some initiatives note the importance of equitable funding and government investments to advance community resilience (11-12,16-17,23,32,41,49-52). One study, Canada's Urban Forests: Bringing the Canopy to All (11), highlights that disparities in green infrastructure in low-income and racialized neighbourhoods are likely due to fragmented planning and underinvestment in these areas.

Identified initiatives that recommend improved investments emphasized the need for funding mechanisms that are not just equitable but also sustainable and flexible to the needs of local communities (11-12,16-17,23,50). One report that highlights heightened vulnerabilities of community housing residents recommended improved government policies and funding mechanisms that better support tenants as well as increased private investments in climate-resilient housing (12). The scan also identified community-based programs that leveraged diverse funding sources (32,36-37,39-40). This included the San Romanoway Towers Revitalization Project (36) and The Atmospheric Fund's Retrofit Accelerator (39), which involved public and private partnerships to support communities with building retrofits and revitalizations.

3. Monitoring changing vulnerabilities, health risks and resilience to climate change

A number of initiatives proposed the need for monitoring the changing vulnerabilities to climate hazards over time in order to, in part, inform subsequent policy responses. It is unclear, however, whether ongoing monitoring of climate vulnerabilities is taking place. As noted in prior sections, several initiatives focused on assessing vulnerabilities at a specific point in time, rather than long-term monitoring. Local public health units in particular note their potential role in surveilling the health impacts of climate change (13-14,59). Community-based projects such as emergency preparedness strategies also outline the need for continuous assessments of local needs and vulnerabilities (55).

Some identified studies also stress the need for proactive monitoring and planning to prevent further inequities potentially driven by socioeconomic changes (2,6,27). This could include migration or worsening poverty and inequities that could be perpetuated by climate change. Other initiatives also considered impacts on labour or employment and neighbourhood-level changes, such as gentrification, that could be impacted by growing adaptation and mitigation efforts (35-37,53). A municipal report summarizing consultations with Indigenous communities in Toronto also stressed the need for

broader discussions on population shifts, displacement and economic changes that are driven by changes in the climate and environment (62). Other community-based initiatives focus on the role of local advocacy to influence climate-related inequities in areas such as food security, housing and transit. Overall, the need for ongoing investments in local communities was highlighted as key to sustainable climate adaptation in the long-term.

The [Indigenous Climate Action Summary Report](#) synthesizes discussions led by City of Toronto's Environment & Energy Division, Resilience Office and the Indigenous Climate Action in 2018 on ways to integrate Indigenous traditional knowledge into urban climate action. The discussion highlights the need for deeper, ongoing Indigenous engagement in climate strategy, urging the municipalities to go beyond one-time consultations and recognize Indigenous knowledge systems as essential to addressing climate challenges. Participants stressed that climate-related risks and ever-changing vulnerabilities such as displacement, health inequities and food and water insecurity should be approached holistically as they are affected and shaped by environmental, cultural and ecological contexts. Importantly, the report calls for Indigenous-led governance frameworks that recognize the importance of cultural resurgence, land and food sovereignty, and long-term investments in Indigenous communities as central to effective and equitable climate adaptation.

Discussion

This environmental scan is the first to systematically identify and synthesize current efforts underway in the GTA to enhance climate resilience among equity-deserving populations. The findings emphasize several key considerations for equity-oriented climate resilience, including meaningful resident engagement, local leadership, the adoption of local, place-based interventions and the integration of health equity into climate action^{12,13}.

“This environmental scan is the first to systematically identify and synthesize current efforts underway in the GTA to enhance climate resilience among equity-deserving populations.”

Applying a health equity lens to resilience initiatives highlights the strong connection between climate vulnerability and the social determinants of health²⁴. A consistent emphasis on social determinants – such as housing conditions, food insecurity and access to protective resources – demonstrates that climate vulnerability is deeply influenced by a community’s social context^{4,25,26}. These results align with a growing body of literature underscoring that a community’s capacity to adapt to climate change is inextricably linked to their social conditions. As such, systematically

embedding health equity into climate resilience planning is not only necessary but foundational to ensuring that adaptation efforts effectively serve those most impacted^{3,6,12,27}.

This health equity lens intersects closely with the principles of climate justice, which call attention to how structural inequities determine who is most exposed to, and least protected from, the impacts of climate change^{28,29}. The initiatives examined in this scan overwhelmingly emphasize community-led and community-based approaches, placing lived experiences, local knowledge and resident leadership at the centre of climate resilience efforts²⁶. As highlighted by the findings in this scan, these grassroots approaches are crucial not only for addressing immediate risks but also for empowering communities to challenge systemic conditions that perpetuate inequities in climate vulnerabilities.

The scan also contributes to the growing recognition of community networks and collaboration in climate resilience²¹. Some identified initiatives illustrate the importance of connections between residents, local infrastructure, public health agencies and municipal institutions (8-10,18). These findings reinforce the idea that climate resilience is not only technical or environmental, but also social and relational, deeply tied to the capacity of communities to organize, respond and advocate for themselves in the face of intersecting crises^{24,26}.

Importantly, this scan also raises critical questions about the dominant framing of resilience within climate discourse. While often defined as the ability to “bounce back” from climate shocks, this framing can obscure the structural conditions that create and

sustain vulnerability in the first place. Resilience efforts that simply restore the status quo risk entrenching inequities, particularly for equity-deserving communities who face systemic barriers to health, safety and security. Instead, findings of the scan point to the need for resilience strategies that are transformative – efforts that aim not only to recover from climate shocks but to address systemic inequities that shape a community’s social contexts and deepen vulnerabilities.

This call for transformative resilience is echoed in critiques from the literature, which argue that mainstream climate resilience, rooted in ecological theory, often fall short when applied to social and health contexts³⁰. However some initiatives from the scan (2,4-8,25,59), supported by a growing body of literature, highlight that climate change is fundamentally shaped by historical and ongoing forces such as environmental racism and colonialism^{8,31-34}. These structural drivers create the conditions for poverty, housing insecurity and food inequity, key determinants of climate vulnerability.

Taken together, these findings underscore the urgent need to align climate resilience efforts with broader goals of climate justice and health equity. Effective resilience must go beyond risk reduction to address the root causes of climate vulnerability. This means centring the voices of marginalized communities, addressing systemic inequities through policy and structural change, and redefining resilience as a pathway towards transformative adaptation and climate justice.

Limitations

While this environmental scan provides a broad overview of climate resilience efforts in the GTA, it also identifies several gaps that present opportunities for future research and policy development.

First, while the use of the Lancet Countdown indicators was a helpful framework for categorizing certain themes within climate resilience efforts, the original indicators only captured factors contributing to international settings. There are opportunities to build on this robust set of indicators to incorporate resilience factors in urban settings, particularly with a health equity lens. For example, the role of housing conditions and social equity in urban resilience could be better understood and incorporated into future frameworks to create a more comprehensive analysis of urban climate resilience.

The scan also notes the need for further examination of policy levers across various levels of government. While some programs, such as income-based retrofit initiatives, aim to improve access to protective measures for equity-deserving populations, there remains limited analysis of how federal, provincial and municipal policy mechanisms intersect to support or constrain local resilience efforts. Future research could explore this policy


landscape in greater detail to identify pathways for structural change that advance equity-centred climate adaptation.

In addition, while there was a significant focus on the integration of lived experiences in climate resilience efforts, there is a lack of specificity in how decision-makers are engaging these voices, and it remains largely a recommendation by the identified initiatives in the scan. Some municipalities recognize the importance of engaging marginalized communities, particularly Indigenous knowledge systems, in resilience planning, but the active involvement of their leadership remains unclear. Future research should concretely explore co-governance and participatory models in adaptation planning and implementation.

Lastly, while some initiatives incorporated evaluation and monitoring components or proposals (20-21,24,30,52,55-56), the scan did not conduct an in-depth evaluation of overall effectiveness of these initiatives. As equity-oriented resilience efforts are becoming increasingly critical, it is equally vital to ensure these efforts are achieving intended outcomes for populations most vulnerable to climate impacts. Further evaluation efforts should incorporate a health equity lens using tools such as the [Health Equity Impact Assessment](#). Additionally, given the multi-sectoral nature of resilience initiatives, collective impact frameworks may offer a valuable approach for assessing the cumulative impacts of multiple and diverse interventions³⁵.

Conclusion

This environmental scan underscores the growing recognition of the importance of equity-oriented approaches to climate resilience in the GTA. It highlights the emergence – and the need – for initiatives that not only address environmental impacts but also tackle the systemic inequities that exacerbate vulnerability, such as poverty, housing insecurity and social isolation. The findings highlight opportunities to further build on existing work through a deeper understanding of the roles of evaluation and policy efforts that advance climate equity. Moving forward, communities, governments and other stakeholders have a role in fostering resilience strategies that go beyond simply maintaining the status quo, and that act on structural changes that foster long-term equitable resilience.



“Moving forward, communities, governments and other stakeholders have a role in fostering resilience strategies that go beyond simply maintaining the status quo, and that act on structural changes that foster long-term equitable resilience.”

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Appendix A. Table of Indicators

The following tables describe indicators from the Lancet Countdown 2024 Report used in extraction and analysis for this environmental scan. Some indicators were modified (*) or added (+) to reflect local contexts and priorities identified through early stakeholder engagement. Others, especially those tied to national or global frameworks (e.g., national adaptation planning), were omitted. In addition to categorizing by indicator categories, initiatives were organized into three categories: research-based initiatives, community-based programs and groups, and municipal strategies.

- **Health Hazards** indicator categories included heat (HT), extreme weather-related events (H&EW), housing⁺ (HS) and food security (F).
- **Co-Benefits to Health and Mitigation** categories captured positive health and mitigation outcomes resulting from resilience initiatives, and included co-benefits in energy use and generation (Energy), air pollution (Air), food and agriculture (Food), and tree cover loss (Tree). Under this category, social equity⁺ (Social Equity) was added to capture potential positive outcomes in social capital²⁰, social connectedness²¹, equitable distribution of resources, and racial equity.
- **Adaptation, Planning and Resilience for Health** organized approaches used by initiatives into three sub-categories:
 - “Assessment and planning of health adaptation” (Assess): Identifying climate-related health risks and vulnerabilities to guide resilience planning.
 - “Enabling conditions, adaptation delivery, and implementation” (Conditions & Implementation): Conditions for successful adaptation, such as climate information, education, and protective infrastructure (e.g., air conditioning, green space).
 - “Vulnerabilities, health risk, and resilience” (Vulnerabilities): Actions that monitor or explore emerging and growing climate-related health hazards, such as extreme weather events and climate-driven displacement.

Table 1. Health hazards indicators used to track health hazards, exposures and impacts of climate change.

Indicator	Total count	Research-based	Community-based	Municipal strategy
Health and heat (HT)	40	n=20 (2-3,6-8,11-15 19-23,27-31)	n=10 (32,35-37,42,45, 47-49,55)	n=10 (56-60,61,63, 65-66,68)
Health and extreme weather-related events (H&EW)	46	n=23 (1-11,13-18 23-27,31)	n=12 (33,36-39,42-43, 47-49,53,55)	n=11 (56-59,61,63-68)
Health and housing+ (HS)	36	n=18 (1-2,6,8,12-18 21-27)	n=12 (32-37,40,42,47, 49-50,55)	n=6 (56-58,60,63,66)
Food security and undernutrition (F)	32	n=11 (2-3,7-8,13-15 17, 20,27)	n=14 (33-34,36-37,41-42, 44,48-52,54-55)	n=7 (58-59,62-64, 65-66)

Table 2. Mitigation actions and health co-benefits indicators that document benefits to environmental and socioeconomic conditions through resilience projects.

Indicator		Total count	Research-based	Community-based	Municipal strategy
Energy use, energy generation and health (Energy)	<ul style="list-style-type: none"> • Energy systems and health • Household energy use • Sustainable and healthy road transport 	36	n=14 (1,6-8,12,16-17,19,23-26,30-31)	n=14 (32,34-42,46,48-50)	n=8 (56,61,63-66,67-68)
Air pollution and health co-benefits (Air)	<ul style="list-style-type: none"> • Mortality from ambient air pollution • Household air pollution 	22	n=12 (2,7,11,13,15,19-20,22,27-29,31)	n=4 (41,45,49,55)	n=6 (58,60-61,63,66,68)
Food, agriculture, and health co-benefits (Food)	<ul style="list-style-type: none"> • Emissions from agricultural production • Diet and health co-benefits 	23	n=9 (2-3,7-8,17,20,24,27,31)	n=17 (32-34,36-37,40-42,44,48-55)	n=7 (58-59,62-64,65-66)
Tree cover loss (Tree)		20	n=13 (7,11,15-16,19-23,25-28)	n=5 (32,36-37,40,45)	n=2 (60-61)
Social equity* (Social Equity)	<ul style="list-style-type: none"> • Social capital* • Social connectedness and community building* • Equitable distribution of resources* • Racial equity* 	59	n=29 (1-18,20-29,31)	n=19 (32-37,41-45,47-53,55)	n=11 (56-61,62,63,65-67)

Table 3. Adaptation, planning and resilience for health indicators focusing on measures that increase adaptation of health and health-supporting systems in order to protect populations against climate risks.

Indicator	Total count	Research-based	Community-based	Municipal strategy
Assessment and planning of health adaptation (Assess)	34	n=17 (3,14-17,19,21-31)	n=4 (32,49-50,55)	n=11 (57-59,61-64,65-68)
Enabling conditions, adaptation delivery, and implementation (Conditions & Implementation)	59	n=23 (1-3,5-14,16-20,23-27)	n=24 (32-55)	n=12 (56-58,60-63,64-68)
Vulnerabilities, health risk, and resilience to climate change (Vulnerabilities)	22	n=11 (2-3,5-6,8,12-14,17,24,27)	n=7 (34,36-37,41,51,53,55)	n=4 (57-59,62)

Appendix B. Table of Climate Resilience Initiatives Focused on Equity-Deserving Communities

The following tables list the GTA-based initiatives identified through the environmental scan, divided into three main categories: 1) research-based initiatives (n=31), 2) community-based programs and groups (n=24), and 3) municipal strategies (n=13).

Table 1. Research-based initiatives

#	Title	Type	Description	Key actors	Health hazard(s)	Mitigation and health co-benefits	Adaptation and resilience planning
1	Climate and Equity Lab	Research lab	A research initiative focused on understanding and enhancing community-led climate resilience for vulnerable groups in Canadian cities through cross-sector collaboration and localized solutions.	Educational institution (university); community organizations	H&EW; HS	Energy; Social Equity	Conditions & Implementation
2	Canadian Poverty, Health Equity, and Climate Change Initiative	Research lab	An initiative uniting research, policy, and lived experience to address the interconnected impacts of climate change, poverty, and health on equity-deserving communities in Canada.	People with lived experiences; climate experts and scholars; policymakers; community organizations	HT; H&EW; HS; F	Air; Food; Social Equity	Conditions & Implementation; Vulnerabilities
3	Transition Toronto's Climate Resilient Communities	Research lab	A group aimed at addressing climate resilience by building data analysis and advocacy capacity in under-resourced communities using data tools and education.	Data scientists; youth community (high school)	HT; H&EW; F	Food; Social Equity	Assess; Conditions & Implementation; Vulnerabilities
4	Community Climate Resilience Lab	Research lab	A research and action lab aimed at advancing evidence-informed, racially just climate resilience strategies to drive equitable policy and systemic change.	Community members; policy actors; educational institutions (university)	H&EW	Social Equity	-

#	Title	Type	Description	Key actors	Health hazard(s)	Mitigation and health co-benefits	Adaptation and resilience planning
5	Racial Justice Climate Resilience Framework	Framework	A collaborative project to address the intersection of climate change and racial inequality, focusing on equitable, community-centred solutions for marginalized populations.	Community members (activists, academics, non-profit leaders)	H&EW	Social Equity	Conditions & Implementation; Vulnerabilities
6	A response framework for addressing the risks of climate change for homeless populations	Framework	A paper highlighting the vulnerabilities of homeless populations to climate change, emphasizing the need for prevention-oriented, trauma-informed, and culturally sensitive strategies.	People experiencing homelessness; policymakers	HT; H&EW; HS	Energy; Social Equity	Conditions & Implementation; Vulnerabilities
7	Pathways to Living Cities: A framework to help practitioners advance equitable, abundant, and thriving green infrastructure in cities across Canada	Framework	A framework to advance equitable green infrastructure to enhance climate resilience, improve urban livability, and address social issues in underserved, "under-natured" neighborhoods, with a focus on anti-oppression, trauma-informed practices for BIPOC (Black, Indigenous and People of Colour) communities.	Neighbourhoods; government (local)	HT; H&EW; F	Energy; Air; Food; Tree; Social Equity	Conditions & Implementation

#	Title	Type	Description	Key actors	Health hazard(s)	Mitigation and health co-benefits	Adaptation and resilience planning
8	Framing Queer Resilience and Climate Justice	Framework	A report outlining resilience-building strategies for 2SLGBTQ+ and marginalized communities in the face of climate change, emphasizing community collaboration, climate justice, and equitable access to resources.	Community-based organizations; social infrastructure; governments	HT; H&EW; HS; F	Energy; Food; Social Equity	Conditions & Implementation; Vulnerabilities
9	Building Community Resilience: A Connected Community Approach to Crises	Framework	A research project exploring the Connected Communities Approach to strengthen relationships between communities and institutions, enhancing resilience in emergencies.	Community members; community organizations; social infrastructures; government	H&EW	Social Equity	Conditions & Implementation
10	A Connected Community Approach: Citizens and Formal Institutions Working Together to Build Community-Centred Resilience	Paper	A paper proposing the Connected Community Approach as a model to enhance community resilience through stronger partnerships between community organizations and the government, with insights on future research and practice.	Community members; community organizations; social infrastructures; government	H&EW	Social Equity	Conditions & Implementation

#	Title	Type	Description	Key actors	Health hazard(s)	Mitigation and health co-benefits	Adaptation and resilience planning
11	Canada's Urban Forests: Bringing the Canopy to All	Evaluation study	A report highlighting the inequities in tree canopy distribution across Canadian cities, advocating for an equitable urban forestry approach to ensure accessible green spaces, especially in low-income and racialized neighborhoods.	Community organizations; government (local)	HT; H&EW	Air; Tree; Social Equity	Conditions & Implementation
12	Heat-proofing community housing: Prioritizing extreme heat adaptation for vulnerable Canadians	Vulnerability assessment	A report addressing the heightened vulnerability of community housing residents to heat-related health issues, with recommendations for coordinated heat response plans, policy adjustments, and long-term urban design strategies to improve resilience.	Community housing residents; supportive housing sector; government (municipal)	HT; HS	Energy; Social Equity	Conditions & Implementation; Vulnerabilities
13	York Region Climate Change and Health Vulnerability Assessment	Municipal vulnerability assessment	A climate change and health vulnerability assessment by York Region Public Health focused on understanding the vulnerabilities and adaptive capacity of at-risk populations, advocating for health equity in climate adaptation planning and cross-sector coordination to build resilience.	Local government; social infrastructure	HT; H&EW; HS; F	Air; Social Equity	Conditions & Implementation; Vulnerabilities

#	Title	Type	Description	Key actors	Health hazard(s)	Mitigation and health co-benefits	Adaptation and resilience planning
14	Understanding the Local Health Impacts of Climate Change and Subsequent Vulnerability Assessments	Municipal vulnerability assessments	A series of reports by Durham Region Health Department addressing the health impacts of climate change, focusing on equity-based strategies to reduce health risks, with a current emphasis on extreme heat and solar ultraviolet radiation.	Local government; social infrastructure	HT; H&EW; HS; F	Social Equity	Assess; Conditions & Implementation; Vulnerabilities
15	Assessing exposure, sensitivity, and adaptive capacity in Peel region	Municipal vulnerability assessment	A report assessing the health impacts of climate change in Peel Region, focusing on vulnerabilities related to temperature, air quality, extreme weather, and disease spread, with recommendations for an equitable adaptation plan to strengthen resilience, particularly for at-risk populations.	Government (local); public health	HT; H&EW; HS; F	Air; Tree; Social Equity	Assess
16	Park Perceptions and Racialized Realities: Exploring the experiences of racialized residents in two Toronto neighbourhoods	Community-based research	A project exploring the experiences of racialized individuals in Toronto's public green spaces, highlighting issues of exclusion, safety, and inequities in maintenance, with a focus on the need for inclusive spaces in under-resourced neighborhoods.	Community-based organization; social infrastructure; education institution (university)	HS	Energy; Social Equity	Assess; Conditions & Implementation

#	Title	Type	Description	Key actors	Health hazard(s)	Mitigation and health co-benefits	Adaptation and resilience planning
17	Community Hubs & Climate Change: A Feasibility Assessment	Feasibility report	A feasibility assessment exploring how community hubs can support climate change mitigation by engaging residents in climate-friendly practices, highlighting successful initiatives and the need for more resources and inter-hub collaboration to scale up future projects.	Community members; community-based organizations; government	H&EW; HS; F	Energy; Food; Social Equity	Assess; Conditions & Implementation; Vulnerabilities
18	The Lighthouse Project	Proof-of-concept and case study	A series of pilot initiatives in Brampton, Hamilton and Toronto that build local climate resilience by engaging faith-based organizations and community leaders, focusing on community-led action, tailored strategies, and emergency preparedness through collaboration with local partners.	Local residents; faith-based organizations; community-based organizations; local government (emergency)	H&EW; HS	Social Equity	Conditions & Implementation
19	Case Study: Increasing Tree Canopy, Brampton, Ontario	Case study	A study evaluating the economic health benefits of increasing tree canopy cover in Brampton, Ontario, highlighting its potential to improve public health and reduce heatwave risks, particularly for vulnerable populations.	Government (local); public health	HT	Energy; Air; Tree	Assess; Conditions & Implementation

#	Title	Type	Description	Key actors	Health hazard(s)	Mitigation and health co-benefits	Adaptation and resilience planning
20	Nature-Based Equity: An Assessment of the Public Health Impacts of Green Infrastructure in Ontario Canada	Health Equity Impact Assessment (HEIA) study	A study using an HEIA to explore the role of green infrastructure (GI) in promoting health equity in Ontario, highlighting the positive impacts of community gardens on food security, mental well-being, and resilience, with recommendations for more equitable GI development in urban planning and public health policies.	Community gardens; municipal government; public health	HT; F	Air; Food; Tree; Social Equity	Conditions & Implementation
21	The equity of Toronto's urban forest: Examining the relationship between urban forest change between 2008 and 2018, resulting tree frequency, and marginalization	Study	A study examining changes in Toronto's urban forest over 10 years, highlighting that current urban forest development does not address inequities and suggesting the need for a more equitable distribution strategy.	Government (municipal)	HT; HS	Tree; Social Equity	Assess

#	Title	Type	Description	Key actors	Health hazard(s)	Mitigation and health co-benefits	Adaptation and resilience planning
22	Inequality in the Distribution of Air Pollution Attributable Mortality Within Canadian Cities	Study	A study examining air pollution-related mortality inequality in seven Canadian cities, including Toronto, finding higher mortality rates among low-income and Indigenous communities and recommending targeted efforts to reduce both mortality disparities and pollution exposure.	-	HT; HS	Air; Tree; Social Equity	Assess
23	Climate Change, Population Health and Health Equity: Public health strategies and five climate solutions that produce health and health equity benefits	Case study report	A report highlighting opportunities to improve health equity through climate action, with case studies showing how local initiatives like walkable neighborhoods and green spaces can reduce emissions and improve public health, urging public health agencies to integrate climate change mitigation into their work.	Public health	HT; H&EW; HS	Energy; Tree; Social Equity	Assess; Conditions & Implementation

#	Title	Type	Description	Key actors	Health hazard(s)	Mitigation and health co-benefits	Adaptation and resilience planning
24	Epistemic justice in flood-adaptive green infrastructure planning: The recognition of local experiential knowledge in Thorncliffe Park, Toronto	Study	A study revealing that flood-adaptive green infrastructure planning in Toronto's Thorncliffe Park excludes marginalized residents due to biased, cost-driven decision-making, emphasizing the need for inclusive planning that incorporates local knowledge and fosters meaningful community participation.	Residents; local advocates and community leaders; flooding experts; local government (urban planners)	H&EW; HS	Energy; Social Equity	Assess; Conditions & Implementation; Vulnerabilities
25	Distributive Justice and Urban Form Adaptation to Flooding Risks: Spatial Analysis to Identify Toronto's Priority Neighborhoods	Study	A study that uses a multi-criteria model linking distributive justice with social vulnerabilities and flood exposures to identify high-risk areas for climate adaptation, highlighting four vulnerable tower communities in Toronto.	Government (municipal); community-based environmental organizations; private sector (transit, urban planning); priority neighbourhood residents; local advocates and community leaders	H&EW; HS	Energy; Tree; Social Equity	Assess; Conditions & Implementation

#	Title	Type	Description	Key actors	Health hazard(s)	Mitigation and health co-benefits	Adaptation and resilience planning
26	Attaining climate justice through the adaptation of urban form to climate change: flood risks in Toronto	Dissertation	A dissertation exploring how cost-benefit-driven urban flood adaptation strategies reinforce social and spatial inequalities, identifying high-risk neighborhoods in Toronto and advocating for justice-oriented, inclusive planning that integrates local knowledge to promote equitable green and blue infrastructure solutions.	Residents; local advocates and community leaders; flooding experts; urban planners	H&EW; HS	Energy; Tree; Social Equity	Assess; Conditions & Implementation
27	Climate change, poverty, and health: A scoping review of the Canadian context	Scoping review	A scoping review examining the impacts of climate change on the physical and mental health of individuals in Canada experiencing poverty, identifying key areas like heat, air pollution, and food security, and emphasizing the need to address poverty to reduce environmental risks and build resilience.	Communities; governments (municipal, provincial); health systems	HT; H&EW; HS; F	Food; Air; Tree; Social Equity	Assess; Conditions & Implementation; Vulnerabilities
28	Tree Equity Score Analyzer	GIS Tool	A tool designed to identify areas of tree inequity in Toronto, emphasizing the importance of access to the environmental, health, and economic benefits of trees, particularly as climate change exacerbates these issues.	-	HT	Air; Tree; Social Equity	Assess

#	Title	Type	Description	Key actors	Health hazard(s)	Mitigation and health co-benefits	Adaptation and resilience planning
29	Peel Region: Tree priority planting tool	GIS Tool	A tool that helps guide informed decisions on tree planting efforts to combat climate change and the urban heat island effect, using vulnerability indices based on income, age, surface temperature, and cooling access.	Municipal government	HT	Air; Social Equity	Assess
30	Linking Green Paths	Asset map	A project connecting St. James Town residents to green spaces and advocating for infrastructure like misting stations, trees, and shade structures to enhance climate resilience and combat extreme heat.	-	HT	Energy	Assess
31	Toronto Ward 4 Neighbourhood Resiliency Maps	Asset map	A pilot project mapping climate hazards and risks in Toronto's Ward 4 (Parkdale-High Park), highlighting local strengths and weaknesses like food access, transit and green space.	Community-based organization	HT; H&EW	Energy; Air; Food; Social Equity	Assess

Table 2. Community-Based Programs and Groups

#	Title	Type	Description	Key actors	Health hazard(s)	Mitigation and health co-benefits	Adaptation and resilience planning
32	Sustainable Neighbourhood Action Program (SNAP)	Program	A program by the Toronto and Region Conservation Authority that supports neighbourhoods in older urban areas to build their resilience through community-based programs such as retrofits and green infrastructure, with an emphasis on collaboration and scalable solutions.	Conservation authority; local residents, community organizations or groups (e.g., tenant groups); municipalities	HT; HS	Energy; Food; Tree; Social Equity	Assess; Conditions & Implementation
33	Accelerating Climate Action Through Community Hubs	Community hub pilot	A project leveraging Toronto community hubs to advance climate action and equity by launching green initiatives, fostering local leadership, and aligning climate solutions with community priorities like food justice, housing and transit in Scarborough, North York and Parkdale.	Neighbourhood residents; community-based organizations; local government	H&EW; HS; F	Food; Social Equity	Conditions & Implementation
34	Growing Healthy Towers: Transformative Partnerships for a Healthy Built Environment	Neighbourhood resilience program	An initiative improving health and well-being in low-income tower communities in Bramalea and Rexdale through greening, urban agriculture and other resident-led actions that enhance food security, social inclusion and sustainability.	Conservation authority; local residents; community organizations; local governments; public health	HS; F	Energy; Food; Social Equity	Conditions & Implementation; Vulnerabilities

#	Title	Type	Description	Key actors	Health hazard(s)	Mitigation and health co-benefits	Adaptation and resilience planning
35	80 TowerPOPS	Community-designed neighbourhood planning	A project that aims to revitalize underused spaces in high-density tower neighborhoods in Mississauga and Toronto to promote active living and community well-being through collaborative, resident-led design.	Urban planning organization; local residents	HT; HS	Energy; Social Equity	Conditions & Implementation
36	Transforming the San Romanoway Towers	Revitalization project	A SNAP project focused on improving the resilience, food security and tenant well-being in aging high-rise complexes through environmental upgrades, community engagement and private-public collaboration.	Conservation authority; local high-rise residents; local businesses and non-profits; property owners	HT; H&EW; HS; F	Energy; Food; Tree; Social Equity	Conditions & Implementation; Vulnerabilities
37	Bramalea SNAP Tower Efficiency and Resilience	Revitalization project	A SNAP project in Bramalea to boost climate resilience, energy efficiency and food security in residential towers through retrofits, green projects and resident engagement.	Conservation authority; local building residents; local community organizations; property owners; municipal government; public health	HT; H&EW; HS; F	Energy; Food; Tree; Social Equity	Conditions & Implementation; Vulnerabilities
38	Save on Energy: Energy Affordability Program	Retrofit program	A program providing low- to middle-income households with free energy assessments, home upgrades and energy-saving kits to reduce energy costs.	Government (provincial)	H&EW	Energy	Conditions & Implementation

#	Title	Type	Description	Key actors	Health hazard(s)	Mitigation and health co-benefits	Adaptation and resilience planning
39	The Atmospheric Fund's Retrofit Accelerator	Retrofit program	A program that supports building owners in the Greater Toronto and Hamilton Area (GTHA) with deep energy retrofits by providing guidance, funding access, technical expertise and post-retrofit monitoring for improved energy efficiency.	Non-profit agency; municipal government	H&EW	Energy	Conditions & Implementation
40	Harvest the Rain Program	Retrofit program	A SNAP program for Black Creek residents focused on sustainability, stormwater management, energy conservation and urban agriculture, offering free consultations and resources to homeowners to enhance climate resilience.	Conservation authority; local residents	HS	Energy; Food; Tree	Conditions & Implementation
41	Jane/Finch Centre Green Change Program	Capacity-building program	A program that engaged Jane and Finch residents in environmental, food security and social justice initiatives to improve community well-being and advocate for equitable urban development.	Community-based organizations; neighbourhood residents	F	Energy; Air; Food; Social Equity	Conditions & Implementation; Vulnerabilities

#	Title	Type	Description	Key actors	Health hazard(s)	Mitigation and health co-benefits	Adaptation and resilience planning
42	Equity in Action: Building Climate Resilience in Black Communities	Capacity-building project	A project that engaged Black communities in the GTHA exploring community perspectives on climate action, addressing systemic barriers and promoting inclusive, community-tailored resilience solutions.	Black community members	HT; H&EW; HS; F	Energy; Food; Social Equity	Conditions & Implementation
43	Building Climate Adaptation Across Youth Wellness Hubs Ontario	Youth resilience program	A project adapting the "Work That Reconnects" framework in Youth Wellness Hubs in Ontario to promote climate-informed mental health support, collective action and youth empowerment through photovoice projects.	Youth wellness hubs; youth community members; mental health organization	H&EW	Social Equity	Conditions & Implementation
44	FoodShare Toronto's Community Food Growing programs	Food programs	A program focused on increasing access to culturally relevant fresh produce and promoting food sovereignty in Toronto's underserved communities through training, resources and community-driven food production initiatives.	Community-based organization	F	Food; Social Equity	Conditions & Implementation

#	Title	Type	Description	Key actors	Health hazard(s)	Mitigation and health co-benefits	Adaptation and resilience planning
45	Toronto Community Housing Corporation's Planting and Stewardship Program	Community program	A program engaging Toronto Community Housing tenants in planting, stewarding native trees and shrubs to enhance green spaces, promote ecological health and improve community well-being.	Municipal government; supportive housing sector; TCHC residents; environmental organization	HT	Air; Tree; Social Equity	Conditions & Implementation
46	Access Alliance Scarborough Cycles	Community program	A program encouraging newcomers in the GTA to learn safe cycling skills, promoting active transportation, mental health and climate change mitigation.	Community-based organization; social infrastructure	-	Energy	Conditions & Implementation
47	St. James Town Climate Action CREW	Grassroots group	A community group in St. James Town empowering high-rise residents to improve their climate resilience through capacity-building and emergency preparedness, including a heatwave response project.	Community-based organization	HT; H&EW; HS	Social Equity	Conditions & Implementation
48	Socially-Connected and Resilient St. James Town Seniors	Grassroots group	A project by St. James Town Climate Action CREW, led by older adult volunteers, promoting physical activities and climate preparedness to improve health, social connections and resilience to extreme weather events.	Local residents	HT; H&EW; F	Energy; Food; Social Equity	Conditions & Implementation

#	Title	Type	Description	Key actors	Health hazard(s)	Mitigation and health co-benefits	Adaptation and resilience planning
49	Peel Community Climate Council	Grassroots group	A youth-led advocacy group, centring Black, Indigenous and people of colour in the Peel Region, focused on local climate action through climate literacy, political advocacy and community-driven solutions.	Youth; community organization; policymakers	HT; H&EW; HS; F	Energy; Air; Food; Social Equity	Assess; Conditions & Implementation
50	Scarborough Environmental Association	Grassroots group	A grassroots organization focused on community building through nature stewardship, sustainable skills-building, and local policy advocacy, with an emphasis on equitable transit and resource access in Scarborough.	Grassroots group; local residents	HS; F	Energy; Food; Social Equity	Assess; Conditions & Implementation
51	Toronto Youth Food Policy Council	Grassroots group	A youth-led advocacy group aimed at addressing food insecurity, promoting food justice and advocating for sustainable food systems through community engagement, research and advocacy.	Community-based organization; youth community	F	Food; Social Equity	Conditions & Implementation; Vulnerabilities

#	Title	Type	Description	Key actors	Health hazard(s)	Mitigation and health co-benefits	Adaptation and resilience planning
52	York Region Food Network	Non-profit organization	An organization that supports food security through advocacy, education, and collaboration, emphasizing an income-based approach to food insecurity and working to enhance local food systems for low-income communities.	Community-based organization; community members	F	Food; Social Equity	Conditions & Implementation
53	Climate Justice & Action Now	Union council	A union council focused on advocating for worker protection and just transition policies and equipping workers with knowledge and skills to advocate for climate action within their unions.	Labour union; government	H&EW	Social Equity	Conditions & Implementation; Vulnerabilities
54	Community Fridges Toronto	Mutual aid project	A project that places publicly accessible fridges across Toronto, allowing neighbours to donate or take food, with volunteers maintaining the fridges and collaborating with local partners.	Grassroots group; local residents	F	Food	Conditions & Implementation
55	Community Workbook for Climate Resilient High-Rise Neighbourhoods	Workbook	A project co-developed by CREW and low-income, racialized high-rise residents that provides tailored tools and strategies to help prepare communities for climate challenges.	Local residents (high-rise communities)	HT; H&EW; HS; F	Air; Food; Social Equity	Assess; Conditions & Implementation; Vulnerabilities

Table 3. Municipal Strategies

#	Title	Type	Description	Key actors	Health hazard(s)	Mitigation and health co-benefits	Adaptation and resilience planning
56	ResilientTO Strategy	Resilience or adaptation strategy	A City of Toronto strategy that aims to advance climate and social resilience through a focus on equity, community engagement and sustainable infrastructure in key areas such as housing, mobility, climate adaptation and civic participation. The strategy is one of many strategies that contribute to the City's climate action and environment protection goals.	Local government	HT; H&EW; HS	Energy; Social Equity	Conditions & Implementation
57	City of Toronto Heat Relief Strategy	Heat relief strategy	A coordinated City strategy to protect vulnerable populations from extreme heat, outlining emergency protocols and focused on collaboration across City divisions and partner organizations.	Local government; supportive public health; supportive housing sector	HT; H&EW; HS	Social Equity	Assess; Conditions & Implementation; Vulnerabilities
58	A Climate of Concern: Climate Change and Health Strategy for Toronto	Health strategy for climate	A Toronto Public Health strategy using an integrated, equity-focused approach to address the complex health impacts of climate change and build resilience, especially in vulnerable communities.	Public health; municipal government; social infrastructures	HT; H&EW; HS; F	Air; Food; Social Equity	Assess; Conditions & Implementation; Vulnerabilities

#	Title	Type	Description	Key actors	Health hazard(s)	Mitigation and health co-benefits	Adaptation and resilience planning
59	Public Health Impacts of Climate Change in Toronto: A Path Forward for Responding to the Climate Crisis	Report for Action	A report by Toronto's Medical Officer of Health recommending a surveillance framework and health equity approach to monitor and address the growing health impacts of climate change.	Local government; public health; social infrastructures	HT; H&EW; F	Food; Social Equity	Assess; Vulnerabilities
60	Growing Space for Trees: Protecting and Enhancing the Tree Canopy While Supporting Infill Housing	Report for Action	A City of Toronto report outlining strategies to balance infill housing ¹ development with the protection and enhancement of urban green spaces, emphasizing equitable development of green infrastructure for underserved communities. This report references and contributes to a number of strategies and actions that support equity-deserving groups, including ResilientTO, TransformTO and the HousingTO 2020-2030 Action Plan.	Local government	HT; HS	Air; Tree; Social Equity	Conditions & Implementation
61	Toronto's Strategic Forest Management Plan 2012-2022	Forest management strategy	A City of Toronto plan to protect, maintain and equitably expand the urban forest as vital green infrastructure across all neighbourhoods.	Local government	HT; H&EW	Energy; Air; Tree; Social Equity	Assess; Conditions & Implementation

#	Title	Type	Description	Key actors	Health hazard(s)	Mitigation and health co-benefits	Adaptation and resilience planning
62	Indigenous Climate Action Summary Report	Action summary report	A City of Toronto report calling for deeper integration of Indigenous knowledge, leadership and holistic worldviews in urban climate strategies, with a focus on land, water and food sovereignty.	Local government; community-based organization; social infrastructure	F	Food; Social Equity	Assess; Conditions & Implementation; Vulnerabilities
63	Peel Region Climate Change Master Plan	Climate change strategy	A Peel Region climate strategy to reduce emissions, build resilience and improve health outcomes for vulnerable populations in the region.	Local government	HT; H&EW; HS; F	Energy; Food; Air; Social Equity	Assess; Conditions & Implementation
64	York Region Climate Change Action Plan	Climate change strategy	A York Region strategy to support equitable mitigation and adaptation by identifying climate-vulnerable populations, integrating adaptation into emergency planning, fostering relationships with Indigenous communities, and collaborating with programs like SNAP to address vulnerabilities in priority neighbourhoods. The plan informs other related strategies such as York Region's Agriculture and Agri-Food Sector Strategy.	Local government	H&EW; F	Energy; Food	Assess; Conditions & Implementation

#	Title	Type	Description	Key actors	Health hazard(s)	Mitigation and health co-benefits	Adaptation and resilience planning
65	Durham Region's Community Climate Adaptation Plan	Resilience or adaptation strategy	A Durham Region strategy to address climate impacts like flooding and storm damage, with a focus on vulnerable populations, including the creation of a Vulnerable Persons Registry for extreme weather alerts, and collaboration with sectors like food security and agriculture. The strategy is linked to others such as the Managing Urban Heat Islands Strategy.	Local government	HT; H&EW; F	Energy; Food; Social Equity	Assess; Conditions & Implementation
66	City of Pickering Community Climate Adaptation Plan	Resilience or adaptation strategy	A City of Pickering plan focused on preparing residents for extreme weather events by integrating climate resiliency into existing programs, providing resources like cooling centres, and using a climate equity lens to prioritize vulnerable populations through participatory planning and localized solutions.	Local government	HT; H&EW; HS; F	Energy; Air; Food; Social Equity	Assess; Conditions & Implementation

#	Title	Type	Description	Key actors	Health hazard(s)	Mitigation and health co-benefits	Adaptation and resilience planning
67	Whitby's Climate Emergency Response Plan Phase 1: Resilience	Resilience or adaptation strategy	A Town of Whitby plan focused on addressing climate risks like flooding and heatwaves through inclusive, equity-driven actions, collaborating with grassroots organizations, and integrating emergency preparedness with the town's Inclusion, Diversity, Equity, and Anti-Racism projects to protect vulnerable populations and infrastructure.	Local government	H&EW	Energy; Social Equity	Assess; Conditions & Implementation
68	Ajax Climate Risk and Resiliency Plan	Resilience or adaptation strategy	A Town of Ajax plan to address climate change risks, focusing on emergency preparedness, infrastructure adaptation, green space enhancement and protecting vulnerable populations from disproportionate climate impacts.	Local government	HT; H&EW	Air; Energy	Assess; Conditions & Implementation

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