National Adaptation Strategy

Health and Wellbeing Advisory Table Report

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1.0   Introduction

1.1 Overview of the National Adaptation Strategy

Risks from climate change to the health of people living in Canada, their communities, and the health system are significant and continue to grow as Canada warms. People living in Canada are already feeling the effects of climate change on their health, including from severe events like heatwaves, wildfires, floods, and droughts. Greater action is needed to protect people living in Canada from current and future impacts.

In 2020, the Government of Canada committed to develop Canada's first National Adaptation Strategy (NAS) as part of its strengthened climate plan, *A Healthy Environment and a Healthy Economy*. Led by Environment and Climate Change Canada (ECCC), the NAS will establish a shared vision for climate resilience in Canada, identify key priorities for increased collaboration, and establish a framework for measuring progress at the national level. The NAS will build on the Pan-Canadian Framework on Clean Growth and Climate Change and encourage action that is cross-cutting and complementary to adaptation strategies led by provinces, territories, local governments, Indigenous Peoples, and others.

The NAS includes five thematic areas: 1) Health and Wellbeing, 2) Resilient Infrastructure, 3) Thriving Natural Environment, 4) Strong and Resilient Economy, and 5) Disaster Resilience and Security. To support NAS development, an Advisory Table has been established for each theme. In Phase I (2021), ECCC tasked Advisory Tables with identifying a transformational goal and medium-term objectives for each thematic area. This report summarizes Phase I advice of the Health and Wellbeing Advisory Table.

1.2 Health and Wellbeing Advisory Table

The Health and Wellbeing Advisory Table is co-chaired by Greg Carreau, Director General of the Safe Environments Directorate, Health Canada and Dr. Sherilee Harper, Associate Professor, School of Public Health and Canada Research Chair on Climate Change and Health at the University of Alberta. The Table included 22 members with diverse backgrounds from local to national health authorities across Canada representing diverse aspects of health systems (public health, health care services, and infrastructure), civil society partners, climate-health research, and strong Indigenous voices (Annex 2). The Advisory Table met four times (November 1; November 23; December 6; and December 16) in 2021 utilizing virtual platforms and tools to exchange information and provide input.

The depth of expertise, experience and diversity among Advisory Table members ensured wide coverage of perspectives related to (1) climate change and health risks and vulnerabilities (e.g., populations at highest risk), (2) regional perspectives related to differential impacts and health adaptation needs, (3) Indigenous rights and Indigenous climate leadership, and (4) the importance of equity, diversity and inclusion in efforts to protect health. One noted omission was representation from youth groups and

the voice that such members would have provided. The Advisory Table drew upon the latest evidence of climate change impacts on the health of people living in Canada and of adaptation options presented in climate change and health science assessments, including preliminary findings from *Health of Canadians in a Changing Climate: Science Assessment 2022.*

The establishment of key terms and concepts became critical for the work of this Table throughout the discussions on identifying a transformational goal and medium-term objectives for the health sector. Key terms and concepts related to health and resilience are provided in the text box below.

Key Terms and Concepts

Health
- "Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity." (Constitution of the World Health Organization)

Health System
- Individuals, organizations, groups, communities, all levels of government, Indigenous health organizations and others who contribute to improving the health and well-being of populations make up Canada's complex health system. This includes, for example, Indigenous health organizations, local/municipal health authorities, provincial and territorial ministries of health, national and provincial/territorial health organizations and institutions, federal agencies and departments whose responsibility is the management of risks that may impact population health, health and allied health professionals and associations, healthcare and public health service providers, NGOs and community-based organizations, universities, laboratories, and research institutions, media, private sector and industry partners (Government of Canada, 2021).

Health Determining Sectors
- Optimal population health and wellbeing cannot be achieved by health care, or even the wider health system, alone. Health determining sectors are other sectors that play a key role in supporting positive health outcomes and are critical in supporting the health system in Canada. Examples include, food and agriculture, energy, employment and income security, sanitation, environment, biodiversity and ecosystem services, disaster and emergency management, infrastructure and the built environment, urban planning, and land use management (WHO 2021).

Determinants of Health
- Determinants of health are the broad range of personal, social, economic, cultural and environmental factors that determine individual and population health. Example determinants of health include: income and social status; employment and working conditions; education and literacy; childhood experiences; physical environments; social supports and coping skills; healthy behaviors; access to health services; biology and genetic endowment; gender; culture; and ethnicity (Government of Canada, 2020).

Social Determinants of Health
- Social determinants of health refer to a specific group of social and economic factors within the broader determinants of health. These relate to an individual's place in society, such as income, education or employment. Experiences of discrimination, racism and historical trauma are

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important social determinants of health for certain groups such as Indigenous Peoples, LGBTQ2SIA, Black Canadians, and other racialized populations (Government of Canada, 2020).

Indigenous Peoples
- The term Indigenous Peoples in this report refers to First Nations, Inuit and Métis Peoples, as well as other Indigenous Peoples living in Canada. The report recognizes the need to employ a distinctions-based approach that takes into account their Rights, unique and distinct voices and strengths, knowledge systems, governance structures, experiences, traditional values, needs and priorities (Crown-Indigenous Relations and Northern Affairs Canada, 2021

Health in All Policies (HiAP)
- The World Health Organization defines Health in All Policies as referring to "taking health implications of decisions systemically into account in public policies across sectors, seeking synergies, and avoiding harmful health impacts, in order to improve population health and health equity through assessing consequences of public policies on determinants of health and well-being and on health systems." (WHO WHA 67.12 2014). A Health in All Policies approach can improve population health and equity by assessing how policies will affect the upstream drivers of health and social conditions through direct consequences but also through unintended but potentially foreseeable consequences of policies that are not health related (WHO, 2021).

One Health
- One Health is an integrated unifying approach that aims to sustainably balance and optimize the health of people, animals, and ecosystems. It recognizes that the health of humans, domestic and wild animals, plants and the wider environment (including ecosystems) are closely linked and interdependent. The approach mobilizes multiple sectors, disciplines and communities at varying levels of society to work together to foster well-being and tackle threats to health and ecosystems, while addressing the collective need for clean water, energy and air, safe and nutritious food, taking action on climate change, and contributing to sustainable development (WHO, 2021).

Health Authority
- Health authorities, also called health regions, are governance models used by most of Canada's provincial and territorial governments (with the exception of Ontario) to administer and deliver public health functions and many health and social services to all Canadian residents. Health care is primarily designated a provincial responsibility under the separation of powers in Canada's federal system. Most health regions or health authorities are organized along geographic boundaries. Regional health authorities govern, plan, and deliver many health and social services within their geographic areas. They are typically responsible for identifying population health needs, planning appropriate programs and services, ensuring programs and services are properly funded and managed and meeting performance objectives (Statistics Canada, 2021).

Resilience
- "The capacity of social, economic, and environmental systems to cope with a hazardous event, trend, or disturbance, responding or reorganizing in ways that maintain their essential function, identity, and structure, while maintaining the capacity for adaptation, learning, and transformation" (IPCC, 2014).

1.3 Urgent Need to Scale-up Health Adaptation

Climate change is already affecting the health of people living in Canada and concerted action is required to ensure that people in Canada can stay healthy and well despite the growing number and increasing severity of climate threats and changes. While climate-related hazards are commonly referred to as "natural" hazards, it is crucial to recognize that the health impacts of climate change also have important social drivers. Health impacts of climate change arise when climate-related hazardous events interact with social groups, communities, health systems and the built environment in complex ways. Therefore, social and economic inequities must be addressed in tandem with other key drivers of climate-related impacts in order to ensure people in Canada can stay healthy and well.

Health and climate change adaptation requires not only improving the resiliency of health systems and critical health determining sectors, but also addressing the socio-economic determinants of health and well-being that affect how climate-related hazards will impact individuals and communities. Scientific literature[1], the work of health authorities, and other health and social care providers in dealing with environmental hazards show that many climate change and health impacts can be reduced, and sometimes prevented, if Canada rapidly and substantially scales up efforts now to adapt to growing health threats. Without taking concerted action, climate change will continue to result in adverse health impacts, such as injury, illness, mental and spiritual health impacts, and death.

The health of people who live in Canada is affected by climate variability and change through direct pathways, such as when extreme heat and other hazards occur, and more indirectly when complex social, environmental, cultural, and economic pathways interact and lead to negative health outcomes. Health impacts on people living in communities across Canada related to rising temperatures and extreme heat, wildfires, and the expansion of disease vectors in Canada, such as ticks that transmit Lyme disease, have been directly linked to a warming climate.

Mitigating the effects of climate change by reducing greenhouse gas emissions can have significant health co-benefits. For example, decreasing air pollution and improving air quality by reducing emissions can lead to reduced rates of pulmonary and cardiac health issues. Due to the relationship between greenhouse emissions and people's health, it is crucial that climate change and health adaptation be done in tandem with efforts to reduce greenhouse gas emissions.

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[1] Research conducted for Canada's national climate change and health assessment "Health of Canadians in a Changing Climate: Advancing Our Knowledge for Action" helped inform the development of this report.

Figure 1: Climate-sensitive health risks
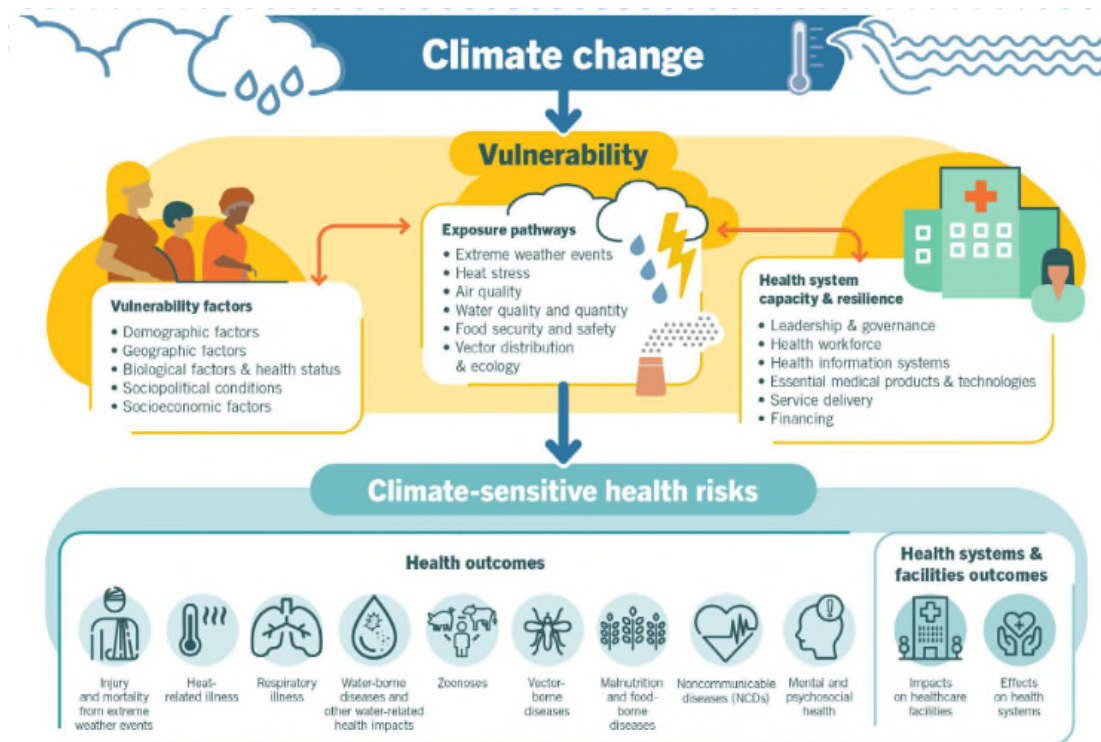
Source: Quality criteria for health national adaptation plans. Geneva: World Health Organization; 2021

A range of natural hazards, including extreme weather events, routinely affect the health of people living in Canada, and sometimes effects on communities are catastrophic. It is estimated that recent extreme heat events ("heat waves") in Quebec have led to a significant number of deaths: 291 in a 2010 extreme heat event and 86 in a 2018 extreme heat event. An extreme heat event in British Columbia in 2021 resulted in 740 deaths. Wildfires continue to increase in Canada and affect health. Over five recent years, it is estimated that 54 to 240 premature deaths due to short-term exposure and 570 to 2500 premature deaths due to long-term exposure per year were attributable to fine particulate matter from wildfires as well as many non-fatal cardiorespiratory health outcomes.

The current rates of mental ill-health in Canada are likely to rise because of climate change. Climate change hazards that can affect the mental health of people in Canada include: acute hazards such as floods, heatwaves, wildfires, and hurricanes; and slow-onset hazards such as drought, sea-level rise, and thawing permafrost. Climate change disproportionately affects the mental health of specific populations including: Indigenous Peoples; women; children; youth; older adults; people living in low socio-economic conditions including the homeless; people living with pre-existing physical and mental health conditions; those who experience evacuations and land loss; and certain occupational groups such as land-based workers and first responders.

In addition to chronic diseases, climate change has played a role in the emergence of infectious diseases

such as Lyme disease in Canada, with the number of reported human Lyme cases increasing from 2009 to 2019. Impacts on food safety and security are threatening health, livelihoods and cultures in many First Nations, Inuit and Métis communities as locally harvested foods are affected by a changing climate.

Climate change is already affecting Canada's health system and facilities – critical services that people living in Canada depend on when disasters strike. Many health facilities, staff, patients, services, operations, and supply networks have been impacted across the country by wildfires, extreme heat, floods and severe storms often forcing health care centres and hospitals to close temporarily, evacuate patients, and/or cancel operations and other services. Other parts of the healthcare system, such as adult day programs, community pharmacies, primary care, rehab services, mental health services, can also be impacted. Combined effects of climate change that overlap and interact could lead to cascading effects on several health outcomes simultaneously leading to more severe health impacts, particularly in rural, remote and Indigenous communities. Economic costs to the health system from increased utilization by affected Canadians (e.g., mental health impacts) and from impacts on infrastructures, supplies, staff and operations will grow without rapidly scaled up adaptation efforts.

All people living in Canada can be affected by climate change; however, some populations are at much higher risk. For example, seniors, children, individuals with chronic health conditions, individuals with disabilities and people who are pregnant can experience increased health risks associated with climate change. Existing health inequities, ongoing colonialism, structural and systemic racism, and variations in the socio-economic determinants of health can drive and compound this risk, as can an individual's sensitivity (such as pre-existing health conditions) and exposure (such as geographic location) to climate hazards. Therefore, racialized populations, low-income individuals, and First Nations, Inuit, and Métis peoples also often experience greater health impacts of climate change.

Adaptation measures, when planned with care, and with equity, justice, and anti-racism lenses can promote health equity and strengthen determinants of health. Any adaptation and resilience-building measures must account for existing health inequities, and be designed to ensure that those that are at highest risk benefit from the efforts. The most effective adaptation measures are developed through meaningful community engagement, particularly with populations and communities that are disproportionately impacted, the use of Indigenous Knowledge, and implementation of co-led adaptation measures (community-based and/or Indigenous-led).

1.4 Effective Adaptation Action Requires Healthy Canadians in Healthy Communities and Environments

People living in Canada will not be able to adapt successfully to climate change impacts in the absence of healthy environments and healthy animals. Approximately 75% of all emerging human infectious diseases originate in animals and changes in climate and the physical environment affect the behavior of animals. Effective adaptation action for zoonotic diseases and some food-, water-, and vectorborne diseases will require considering the One Health perspective. The COVID-19 pandemic reinforces the critical importance of strengthening a One Health approach that integrates disease prevention, detection, surveillance and response across the human-animal-environment interface. By taking a wide

view on seemingly insurmountable challenges, Canada can work to prevent a myriad of problems that emerge at the intersection of human, animal, and environmental health and utilize on a wider range of opportunities to achieve impacts that matter to people living in Canada.

> *"We are talking about health and wellness and not just disease service. We are looking at building capacity across generations. We are recognizing that a fundamental re-think of what we mean by "caring for health" is needed but will need changes in how we govern, empower and enable health decision makers from Parliament to households"* - **Advisory Table Member**

Focused efforts to prepare for climate change impacts on health through the NAS must be undertaken and aligned with concomitant measures by decision-makers within and outside of the health system to promote healthier and more equitable communities and to reduce the greenhouse gas emissions associated with the delivery of healthcare. Adaptation measures, when planned with care, can promote health equity and strengthen the determinants of health.

It is recognized that there are other forms of knowledge generation activities and ways of knowing beyond those traditionally used in Western science. Indigenous knowledges must be meaningfully and respectfully applied in adaptation. Guiding principles identified by the Health and Wellbeing Advisory Table for effective measures in a future National Adaptation Strategy include the following:

Equity and Inclusion

- Systems of oppression are dismantled, social justice is promoted, and the truth and reconciliation calls to action are advanced.

- Procedural, distributive, and contextual equity is present in all aspects of climate change and health adaptation processes.

- Adaptation and resilience building measures support and strengthen health equity and social justice.

- Grounding the NAS in principles of equity, including anti-racism and decolonization.

- Employing a distinctions-based approach and ensuring co-development of actions. Ensuring the needs and voices of Indigenous Peoples are heard and acted upon.

- Applying an intergenerational lens to the NAS, ensuring that adaptation measures that are implemented now create sustainable systems for future generations to enjoy.

Ecological Integrity and Protection

- Applying a comprehensive One Health, multi-sector, multidisciplinary and multi-stakeholder lens to the NAS to address upstream determinants, risk factors, pathways and outcomes of climate change that affect the health of all people living in Canada.

- Taking aggressive and ambitious measures to reduce greenhouse gases within and outside of the healthcare system to achieve immediate and longer-term population health co-benefits. The economic value of the health benefits of policies to mitigate climate change can substantially offset the estimated costs of mitigation.

> *"The health co-benefits from actions in the health sector and outside of the sector can improve health equity and benefit those disproportionately impacted by climate change"* - **Advisory Table Member**

A Whole Health Approach Based Upon Leadership

- Ensuring the NAS includes mental, emotional, and spiritual health.

- Expanding the conceptualization of health and wellbeing to dismantle the current siloed approach to ensure that other sectors account for and support health needs under the care and control of that given sector. For example, health and wellbeing are accounted for and supported in other sectors, such as natural ecosystems, and infrastructure.

- Ensuring that the health system is a leader in adaptation and reducing greenhouse gas emissions, and that other sectors pursue a "health in all policies approach".

Empowering Individuals and Communities to Take Action

- Individuals are aware of health risks related to climate change and are proactive in implementing protective measures.

- Health promotion strategies, and innovative educational campaigns are tailored to reach all people in Canada. The associated increased awareness is accompanied by an enabling environment (e.g. policies, resources, norms, etc.) to turn awareness into protective measures.

- Empowering people to have agency over their health and wellbeing by tackling social determinants of health.

Coordinated and Accountable

- Adaptation planning and implementation is systemic, coordinated and collaborative, occurring in a consistent manner across all levels of government and critical health-enabling sectors.

- Decision-making mechanisms and exchange of knowledge are transparent and coordinated among all communities and stakeholders, and include meaningful engagement and community-based/ co-led measures.

- Institutions, organizations, and governments are aware of threats to critical health-enabling sectors, services, and facilities, and are proactive in implementing effective adaptation measures.

- Mechanisms are in place that support the continuous monitoring and evaluation of adaptation measures, and allow for intervention, modifications, and/or adoption of alternative strategies whenever necessary to enhance effectiveness of measures.

- Dedicated funds and resources are consistently available and provided through a flexible mechanism to ensure all relevant actors and organizations have the capacity to take proactive, effective measures to adapt and build resilience to the current and future impacts of climate change.

Knowledge Creation and Implementation

- Research programs are enhanced and sufficiently resourced to fill existing knowledge gaps, and incorporate evidence from science and Indigenous Knowledge systems, which are viewed as equal.

1.5 Roles and Responsibilities for Health Adaptation

Roles and responsibilities for the management and delivery of public health activities, health promotion, and health care services are divided between federal, provincial, territorial, Indigenous, and local governments. The federal government provides financial support to provinces and territories, along with setting and administering national principles for Canada's healthcare system and conducts surveillance and monitoring. The federal government also funds and/or delivers public health and primary care services and benefits for some population groups, including First Nations people living on reserve, Inuit, members of the Canadian Armed Forces, veterans, and inmates in federal penitentiaries. Provinces and territories manage and deliver the majority of health care services in Canada, and functions include[2]:

- ➢ Administration of their health insurance plans;
- ➢ Planning and funding of care in health authorities or hospitals and other health facilities;
- ➢ Services provided by doctors and other health professionals;
- ➢ Planning and implementation of health promotion and public health initiatives; and
- ➢ Negotiation of fee schedules with physicians.

Responsibility for public health services and activities, such as sanitation, infectious diseases, and health promotion are often shared between provincial, territorial municipal, and Indigenous governments. The federal government provides national leadership and coordination on a variety of public health initiatives including national surveillance, and monitoring, international reporting, health promotion and education, prevention, and outbreak response.

Given that responsibility for the health system spans across multiple governments and actors, so too does the responsibility for health adaptation. Information on current and future health risks related to climate change, populations at highest risk, and effective adaptation actions to protect individuals and communities is required by a range of actors, including, but not limited to:

- ➢ Decision-makers in local, regional, and Indigenous public health authorities
- ➢ Healthcare organizations (e.g., CMA, CFMS, CAPE, CNA)
- ➢ Healthcare practitioners (e.g., pharmacists, doctors, nurses, mental health professionals)
- ➢ Indigenous healthcare organizations and authorities
- ➢ Health system administrators and decision makers (e.g., health authority or hospital administrators, healthcare facilities operations managers)
- ➢ Allied health partners (e.g., emergency management)
- ➢ Researchers and academic institutions
- ➢ Private sector (e.g., pharmaceutical and medical device manufacturers, health supply chains, supplementary health insurers)
- ➢ Critical health-enabling sectors (e.g., transport, trade, urban planning and land-use management, infrastructure, agriculture and agri-food)

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[2] Government of Canada, (2019). Canada's Health Care System.

In some/many cases, effective health adaptation will benefit from a collaborative One Health approach across various levels of government and knowledge disciplines.

2.0 Goal and Objectives

2.1 A Vision of a Healthy and Resilient Canada

The Advisory Table undertook an exercise to envision what a healthy and resilient Canada would look like by 2050. Discussions spanned the first two meetings and common themes emerged. Health systems should be able to absorb shocks and stresses from climate impacts and bounce back (or ahead or better) from perturbations. Health system staff should be climate-literate and aware of health risks to people living in Canada. All health facilities and related infrastructures should be resilient to the current and future impacts of climate change as well as environmentally sustainable to reduce contributions to climate warming. The strategies and measures implemented to achieve this future should use a "no-harm" approach, ensuring that future generations will not be adversely impacted.

> *"Indigenous Peoples have been adapting to climate for millennia and have many solutions based upon Indigenous knowledge systems that can help all Canadians adapt and build resilience" - **Advisory Table Member***

2.2 Transformational Goal

Advisory Table members identified the following transformational goal as a contribution to the National Adaptation Strategy:

> *By 2050, all people living in Canada, their communities, and the health, social, environmental and economic systems across governments[3] that support them and that are critical for health and wellbeing, are resilient and thriving in a changing climate. This includes a transformational change to Canada's health sector to one that is just, equitable, decarbonized, innovative, and adaptive.*

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[3] Indigenous, municipal, provincial, territorial, and federal governments.

2.3 Medium-term Objectives

To achieve this goal, Advisory Table members identified the medium-term objectives described below. Advisory Table members emphasized that in order to achieve the proposed objectives, federal, provincial, and territorial processes need to become more efficient and effective, especially when developing and implementing cross-ministerial actions. The current speed at which the government operates is not conducive to scaling up climate change adaptation efforts within a timeframe that will protect the health and wellbeing of people in Canada.

Objective 1

By 2030, all health authorities[4] and health care organizations[5] across Canada have the information, financial resources, and expertise they need to continually understand and address priority climate-related health risks and are taking aggressive and equitable action to reduce those risks.

Objective 2

By 2030, communities across Canada and all levels of government[6] have robust and equitable climate change adaptation policies and programs to reduce impacts to health and wellbeing of people living in Canada and use rigorous evaluation systems to measure equitable and just adaptation effectiveness.

Objective 3

By 2030, Canada has robust, diverse, and accessible systems and capacities to access, assess, and share health, socio-economic, and environmental data[7] for use in health resiliency promotion, risk prevention, and diagnosis and treatment of climate-related health impacts.

Objective 4

By 2030, the health system and all sectors critical to supporting the health and wellbeing of people living in Canada[8] have the necessary tools and resources to apply a Health in All Policies approach[9] to action on climate change, including a climate change and equity[10] and justice lens, Indigenous Knowledge Systems, and One Health approaches[11].

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[4] Health authorities, also called health regions, are a governance model used by most of Canada's provincial and territorial governments to administer and deliver public health care to all Canadians and residents. Included in this definition are Indigenous Health Authorities and Governments that are critical to providing health services for Indigenous Peoples.
[5] Includes all health care facilities, associations, and organizations responsible for contributing to and providing health care services to people living in Canada.
[6] This includes Indigenous, municipal, provincial, territorial, and federal governments.
[7] Examples of data include sex, ethnicity, race, and gender-disaggregated and ecological data.
[8] There are many health critical sectors. Examples include infrastructure, economy, and nature protection.
[9] An approach to public policies across sectors that systematically takes into account the health implications of decisions, seeks synergies and avoids harmful health impacts in order to improve populations' health and health equity.
[10] Equity refers to social, as well as environmental and ecological justice.
[11] A collaborative, multisectoral, and transdisciplinary approach – working at the local, regional, national, and global levels with the goal of achieving optimal health outcomes recognizing the interconnection between people, animals, plants, and their shared environment.

Objective 5

By 2030, Canada has taken aggressive action to achieve net zero emissions in the health system[12] by prioritizing greening of health services and operations. This includes completion of a baseline assessment of greenhouse gas emissions, including the supply chain, and implementation of a net-zero action plan that maximizes health co-benefits for people living in Canada.

3.0 Next Steps and Considerations for Phase 2

3.1 Recommendations for the Continued Development of the National Adaptation Strategy

The continued development of the National Adaptation Strategy should include:

- A robust and meaningful consultation process that captures the views and perspectives of people in Canada. This includes consultation with youth, First Nations, Inuit, Métis, and other Indigenous Peoples, health professionals, health experts and stakeholders, provincial and territorial governments, and people living in Canada.

- A formal, transparent and consistent mechanism that supports the sharing of information across Advisory Tables to ensure that synergies and cross-cutting themes are identified and captured appropriately.

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[12] See definition of health system in the introduction of this report.

Annex 1 - Summary of Meetings

The Health and Wellbeing Advisory Table convened for four meetings, which took place virtually between November and December 2021. Objectives and summary of each meeting are provided below.

Meeting 1

The purpose of this meeting was to provide an overview of the work of the Health and Wellbeing Advisory Table and to provide information about the National Adaptation Strategy. The second meeting objective was to discuss an approach in identifying long-term transformational goals, medium-term objectives, and short-term actions. Key points discussed in the meeting included:

- Scope - Surrounding the meaning of health, wellbeing, and resilience; the composition of the health system and health sector; linkages with non-health sectors.
- Perspectives/Considerations - Indigenous Peoples, distinctions and rights; equity, diversity, inclusion, sex, and gender; youth, future people living in Canada; local/community level; global connectedness.
- Framing - Positive vision for the future, opportunities, innovation.
- Principles – Principles that should underpin the entirety of the NAS, including equity, multi-sectoral linkages, and distinctions-based co-development.

Meeting 2

The purpose of this meeting was to review what we heard from Meeting 1, brainstorm transformational goal(s), and begin thinking about medium-term objectives. Advisory Table members were divided into breakout rooms to discuss the vision for health and wellbeing in a changing climate in Canada (2050) and exchange information and perspectives on a goal for the health and wellbeing theme. Each breakout room was tasked to report back to plenary on a draft goal or themes that were common throughout discussion. Following the breakout rooms, several common themes emerged during the plenary discussion, including:

- Ensuring that the health sector is a leader in adaptation and reducing greenhouse gas emissions.
- Taking a preventative approach to reduce ill health, including by empowering people to have agency over their health and wellbeing by tackling social determinants of health.
- Ensuring the NAS includes mental, emotional, and spiritual health.
- Ensuring adequate funding for the healthcare system and social safety nets so that people who are affected by climate-disasters have insurance and the resources to maintain their health and wellbeing.
- Grounding the NAS in principles of equity, including anti-racism and decolonization.
- Employing a distinctions-based approach and ensuring co-development of actions. Ensuring the needs and voices of Indigenous Peoples are not only heard but are acted upon.

- Applying an intergenerational lens to the NAS, ensuring that adaptation measures that are implemented now create sustainable systems for future generations to enjoy.
- Expanding the conceptualization of health and wellbeing to dismantle the current siloed approach to ensure that health and wellbeing is an important pillar in other sectors, such as natural ecosystems and infrastructure.
- Incorporating a Planetary/One Health perspective in future actions to ensure animals and our environment are healthy, thereby supporting human health.
- Developing a reporting system and indicators to track progress on health adaptation in relation to climate change. The need to develop a mechanism to ensure that reports are not only read, but are used to inform policy at multi-jurisdictional levels.

Meeting 3

The third meeting of the Health and Well-being Advisory Table took place on December 6, 2021. The purpose of this meeting was to review discussions about transformational goals and medium-term objectives from the first and second meetings and to provide advice on and prioritize three to five medium-term objectives.

In plenary, Advisory Table members were led through an exercise wherein participants were asked to refine draft transformational goals. Participants were also invited to provide additional draft transformational goals on a Google Jam Board. The need to define the term "health system" recurred in discussions for most of the draft goals.

In breakout rooms, Advisory Table members discussed candidate medium-term objectives (six in total). The objectives key themes emerging from the discussions were as follows:

- Need for evaluation, including indicators, reporting, and accountability.
- Need to empower people in Canada, agencies, and ministries to implement a Health In All Policies approach.
- Need for multi-sectoral action that is well-funded and captures both Western and Indigenous conceptions of health and well-being.
- Need to incorporate Indigenous knowledge systems in the NAS.
- Need to ensure we are going beyond assessments and are ramping up health adaptation plans.
- Need to consider current issues facing the public health and health care workforce (e.g., COVID-19) and other challenges will affect capacity to undertake these activities.
- Need for cross-sectoral linkages, including with Indigenous communities and provincial and territorial partners.
- Need to improve tracking systems for climate-related illnesses and health outcomes, incorporating race and socio-economic status data.
- Need to add an objective related to improving climate change communication with the public and decision makers.
- Need for to identify health co-benefits and cross-sectoral linkages.

Meeting 4

Advisory Table met for the last time in 2021 on December 16 as part of Phase I to synthesize advice for the NAS Framework. Advisory Table members discussed one goal and objectives in detail to agree on text and key concepts to capture in the final Phase I Report. Through plenary, the Advisory Table members were guided through an overview of the draft transformational goal and the draft objectives. Through a consensus-based approach using interactive polling on Zoom, Advisory Table members were asked to vote on the draft goal and objective. The polling approach allowed for continued discussion and revision of the draft goals and objectives, to enhance overall agreement and endorsement of the drafts through real-time editing and active listening. Overall, the proposed draft goal and each objective were discussed in length to ensure a higher level of agreement and consensus. Key points and outcomes of the final meeting included:

- The transformational goal and objectives should be inspiring and simple, using words that can empower Canadians. Advisory Table members agreed that text should be shortened, but did not want to lose important contributions.
- Advisory Table members continued promote the importance of applying a health equity lens to all climate change adaptation and mitigation strategies across all sectors.
- There was keen interest in ensuring that the Health and Wellbeing theme recognizes the potential to inspire the health sector in Canada to reduce greenhouse gas contributions, and at the same time encouraging the health co-benefits of greening the health sector.
- Advisory Table members also discussed principles of good governance and transformation in the status quo as a potential necessity to implement NAS goals and objectives.
- The Advisory Table Member agreed to merge two objectives into one, which resulted in five medium term objectives.
- Advisory Table members expressed interest to continue to be engaged on the NAS in the second phase of work and expressed contentment with the process thus far.

Annex 2 - Health and Wellbeing Advisory Table

<u>Mandate</u>

In Phase I, the mandate of the Health and Wellbeing Advisory Table is contribute to the development of the National Adaptation Strategy by:

- Establishing one transformational goal that can be achieved by 2050 for the health and wellbeing theme of the NAS.
- Establishing three to five medium-term objectives to support the transformational goal over a five to ten year timeline.
- In Phase II, develop short-term actions and performance metrics to support each medium-term objective.
- Members will also advise on the broader NAS development, including highlighting cross-cutting themes with health and wellbeing and other ATs, as well as advise on the importance of health equity and how upstream determinants of health should factor into the NAS.

<u>Membership</u>

The Health and Wellbeing Advisory Table is co-chaired by Greg Carreau, the Director General of Health Canada (federal co-chair) and Dr. Sherilee Harper, Associate Professor at the University of Alberta (external co-chair). The Advisory Table consists of 22 members with various specialities, such as healthcare, climate change and mental health, environmental health, public health, youth, the health of Indigenous Peoples, local and regional health issues, and the One Health Approach.

Name	Role	Organization
Louise Aubin	Director of Health Protection	Regional Municipality of Peel – Public Health
Dr. Jacqueline Badcock	Senior Program Advisor, New Brunswick Public Health	Government of New Brunswick
Denise Baikie	Policy Advisor	Inuit Tapiriit Kanatami
Dr. Myrle Ballard	Assistant Professor / Indigenous Scholar, Department of Chemistry, Faculty of Science	University of Manitoba
Dr. Peter Berry	Senior Policy Analyst/Science Advisor	Health Canada
Greg Carreau	Director General (Co-Chair)	Health Canada
Dr. Craig Stephen	Clinical Professor	University of British Columbia
Ian Culbert	Executive Director	Canadian Public Health Association

Name	Role	Organization
Dr. Ashlee Cunsolo	Founding Dean, School of Arctic & Subarctic Studies	Memorial University
Judith Eigenbrod	Senior Policy Advisor, Social Branch	Assembly of First Nations
Dr. Sherilee Harper	Associate Professor (Co-Chair)	School of Public Health, University of Alberta
Dr. Anjali Helferty	Executive Director	Canadian Association of Physicians for the Environment
Dr. Sarah Henderson	Scientific Director	Environmental Health Services at BCCDC
Dr. Sean Kidd	Associate Professor, Department of Psychiatry	University of Toronto
Dr. Patrick Leighton	Professor of Epidemiology and Public Health at the Faculty of Veterinary Medicine	University of Montreal
Dr. Deborah McGregor	Associate Professor / Canada Research Chair in Indigenous Environmental Justice	York University
Dr. Fiona Miller	Professor / Director	Centre for Sustainable Health Systems, University of Toronto
Pemma Muzumdar	Knowledge Translation Specialist	National Collaborating Centre for Determinants of Health
Dr. Claudel Petrin-Desrosiers	Family doctor and clinical lecturer	University of Montréal, Faculty of Medicine
Linda Varangu	Senior Advisor	Canadian Coalition for Green Health Care
Dr. Eduardo Vides	Senior Health Policy Advisor	Metis National Council
Angie Woo	Climate Risk and Resilience, Manager	Facilities Management and Environmental Sustainability, Fraser Health