

Evaluation of the Infectious Disease and Climate Change Program (IDCCP)

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List of Acronyms

CSID	Climate Sensitive Infectious Disease
IDCCF	Infectious Disease and Climate Change Fund
IDCCP	Infectious Disease and Climate Change Program
NAS	National Adaptation Strategy
NMLB	National Microbiology Laboratory Branch
OTH	Office of Travel Health
PHAC	Public Health Agency of Canada
SGBA	Sex- and Gender-Based Analysis
SPIB	Science and Policy Integration Branch
WHO	World Health Organization
ZID	Zoonotic Infectious Disease

Executive Summary

Program Background and Context

The Infectious Disease and Climate Change Program (IDCCP) focuses on preparing for and protecting people in Canada from climate-sensitive infectious diseases (CSID) of zoonotic, food-borne, or water-borne origin. Program activities include actions that stimulate public health innovation using a One Health approach by linking human, animal, and environmental health sectors and advancing climate change adaptation.

The Program delivers on federal commitments of the Government of Canada's Adaptation Action Plan as part of the National Adaptation Strategy (NAS) on Climate Change, but it does not receive funding under the NAS. The IDCCP, including the Infectious Disease and Climate Change Fund (IDCCF), is set to sunset at the end of the 2027-2028 fiscal year, aligned with other time-limited climate change funding for other federal departments (e.g., Environmental and Climate Change Canada, Health Canada).

Evaluation Approach and Scope

The evaluation assessed program impacts, effectiveness of resource allocation, use of data for evidence-based decision making within the Agency, as well as the clarity of roles and responsibilities of PHAC and its partners and stakeholders.

The evaluation examined IDCCP activities undertaken by the Infectious Diseases and Vaccination Programs Branch (IDVPB) and the Climate Change Adaptation and Infectious Diseases Program activities undertaken by the National Microbiology Laboratory Branch (NMLB) between 2021-2022 to 2025-2026. It also included the activities of the Public Health Risk Sciences Division, formerly of the NMLB, which joined the Science and Policy Integration Branch (SPIB) as of April 1, 2025, and is now called the Modelling Hub.

The evaluation did not examine activities associated with food-borne and water-borne enteric diseases, as these will be evaluated in 2026, as well as antimicrobial resistance activities which will be evaluated in 2027.

The evaluation findings were informed by evidence from interviews with PHAC employees, partners, and stakeholders; review of documents and knowledge products, including work plans, reports, performance data, communications materials, and financial information; review of grants and contribution agreements; review of academic and grey literature; an international comparison; and a survey of stakeholders and partners.

Findings

Achievement of program outcomes

The IDCCP's activities improved access to timely and accurate information, supported the development of enhanced systems and tools to support decision making, and fostered partnerships between PHAC and other One Health actors, including Indigenous communities, to improve CSID-related knowledge translation and to reduce the health effects of climate change. There is more work needed to improve knowledge of CSIDs and identify the most effective ways to improve preventive and protective behaviors.

Use of Program resources and clarity of roles and responsibilities

Resource allocation is evidence-informed and underpinned by a commitment to the needs of priority populations and target audiences. The COVID-19 pandemic slowed the implementation of some activities due to the reassignment of staff. Roles and responsibilities at the working level are clearly delineated among the lead branches, but the Program's strategic planning and decision-making processes are less well-defined and have contributed to perceptions of unequal partnership roles. The Program has initiated measures to strengthen overall planning and coordination among responsible senior managers, in order to ensure a shared understanding of Program strategies and objectives.

Evidence-based decision making by internal and external partners

Through its cross-sectoral collaborations and partnerships with other One Health actors, including Indigenous communities, the Program supported the development of enhanced systems and tools to strengthen knowledge translation. Data-generating activities (e.g., monitoring, surveillance, modelling) and data management systems and tools like dashboards have enabled effective data sharing to support decision making among internal and external partners. While the Program has modernized and strengthened its surveillance systems and data management tools, there are opportunities to further enhance decision making by embedding equity considerations and building on a One Health approach by incorporating climate-related factors with population-level domestic animal and wildlife data across surveillance systems and activities. This would require substantial coordinated efforts and resources among multiple governmental and non-governmental partners, which go beyond the Program's current mandate.

Recommendations

The IDCCP has made progress toward achieving its medium-term and long-term outcomes but there is an opportunity to further improve implementation and climate resiliency by Canadians.

Recommendation 1: Collaborate with partners to address knowledge gaps and improve adoption of preventive and protective behaviours.

The Program fostered the development of systems and tools to support evidence-based decision making and knowledge translation. It also improved access to timely and accurate information about CSIDs, but there remain some important knowledge gaps, namely:

- The impact of enhanced systems and tools and awareness activities on preventive and protective behaviours;
- Interventions aimed at bridging the knowledge-action gap on preventive behaviours; and
- Impact of CSIDs on priority populations including Indigenous communities.

PHAC can further advance the goals of the IDCCP by collaborating with partners to explore and address knowledge gaps, with recognition that actions by a range of government and multi-sector partners can influence adoption of preventive and protective behaviours.

Management Response and Action Plan

Recommendation 1

Collaborate with partners to address knowledge gaps and improve adoption of preventive and protective behaviours.

Management response

Management agrees with the recommendation. PHAC will continue to seek collaborative opportunities to address knowledge gaps and strengthen the adoption of preventive and protective behaviours—both in current and upcoming initiatives noting that the Infectious Disease and Climate Change (IDCC) Program is set to sunset in March 2028.

Action Plan	Deliverables	Expected Completion Date	Accountability	Resources
PHAC will leverage the Infectious Disease and Climate Change Fund to provide funding for First Nations, Inuit and Métis community-driven initiatives to build capacity and resiliency, and mobilize evidence and raise awareness to take action	Funding agreements signed with recipients focused on community-driven initiatives that integrate Indigenous knowledge with Western science, emphasize cultural response, integrate Indigenous cultures, values, traditions and knowledge to raise awareness, build capacity, empower Indigenous communities and drive action on climate change,	Signing of agreements by Q4 (January 2026)	Director General, Centre for Food-borne, Environmental and Zoonotic Infectious Diseases	\$3.3M over three years (2025/26 to 2027/28)

	infectious diseases and human health and will also augment health professional capacity through the development of public health tools, training, and better resources.			
The Program, in collaboration with the Communications and Public Affairs Branch (CPAB), will adapt awareness resources and identify new partnerships to strengthen the reach and impact of zoonotic disease prevention messaging. Activities will be informed by analytics, public opinion research (POR), and behavioural insights, with a focus on improving knowledge and adoption of preventive behaviours among priority populations	Deliverable 1 Develop a partnership engagement plan that identifies and works with external partners (e.g., Parks Canada, provincial/territorial parks, outdoor organizations, educational institutions, and relevant retailers) to promote and disseminate key zoonotic disease prevention messages to target audiences, including priority populations. Deliverable 2 Adapt and tailor existing Lyme disease awareness and prevention resources, guided	March 31, 2027	Director General, Centre for Foodborne Environmental and Zoonotic Infectious Diseases Director General, Communications and Public Affairs Branch	Existing resources

	by behavioural insights to ensure relevance and accessibility for priority populations, and distribute these resources through new and existing channels.			
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Program Description

The Infectious Disease and Climate Change Program (IDCCP) focuses on preparing for and protecting people in Canada from climate-sensitive infectious diseases (CSIDs) that are zoonotic, food-borne, or water-borne in origin. The Program was created to advance Priority 4 of the *Pan-Canadian Framework on Clean Growth and Climate Change (PCF)*, namely, "Protecting and improving human health and well-being". It advances this work through the lens of One Health, which applies an innovative approach to policy and programming incorporating data and evidence from a range of partners (i.e., animal health, wildlife health, environment, veterinary medicine, human health) to inform decision making.

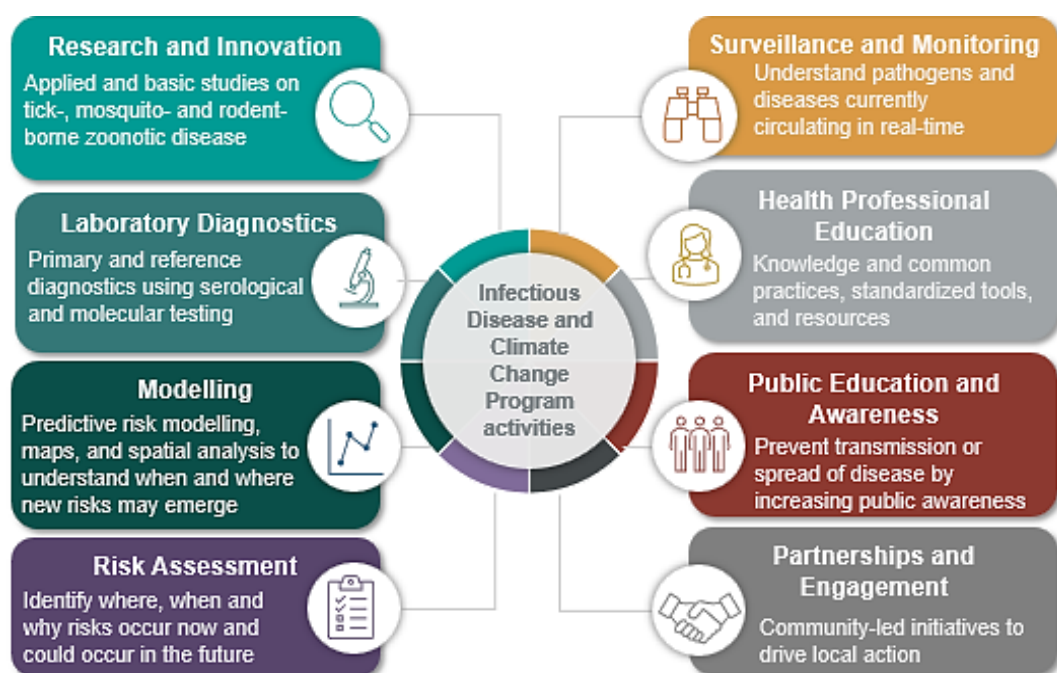
As the PCF has sunset, the IDCCP now contributes to federal commitments of the Government of Canada's Adaptation Action Plan as part of the National Adaptation Strategy (NAS) on Climate Change, but it does not receive funding under the NAS.

Program Activities

The Program leads actions on surveillance and monitoring, model-based risk assessments, laboratory diagnostics, as well as capacity building activities including health professional education, and public awareness activities. The vision for the Program seeks to advance the following objectives:

1. Increasing capacity to respond to the rising demands posed by climate-sensitive zoonotic, food-borne, and water-borne infectious diseases.
2. Enabling people in Canada and communities to have access to timely and accurate information to better understand their risks and take measures to prevent infection.
3. Improving adaptability and resiliency to the health impacts of climate-sensitive infectious diseases, through surveillance and monitoring activities, as well as access to education and awareness tools to equip health professionals with the information they need to provide advice to their patients and clients.

Figure 1: Visualization of the IDCCP's Activities



The Program is co-led by the Infectious Diseases and Vaccinations Programs Branch (IDVPB), the National Microbiology Laboratory Branch (NMLB) and the Science and Policy Integration Branch (SPIB). Funding previously held by the former Public Health Risk Sciences Division under NMLB was moved to the new Science and Policy Integration Branch (SPIB).

With this funding, IDVPB, particularly the Centre for Food-borne, Environmental and Zoonotic Infectious Diseases (CFEZID), is responsible for public education and awareness and health professional education. The NMLB's technical expertise is applied to Program objectives through laboratory diagnostics and participation in research and innovation initiatives. IDVPB and NMLB conduct surveillance and monitoring, as well as partnerships and engagement activities. Risk assessment activities in the context of the IDCC Program comprise model-based assessment of current and future risk from CSIDs, to inform public health programs and awareness of Canadians, and were recently transferred from NMLB to SPIB.

The lead branches of the Program, IDVPB, NMLB, and SPIB, generate, analyze, and share data through their surveillance and monitoring, risk assessment, and modelling activities, which inform decision making and public health action by internal and external partners. The IDCCP monitors, detects, assesses, reports, and responds to CSID outbreaks that pose a risk to people in Canada and Canadians travelling abroad.

Table 1 below presents branch involvement in IDCC program activities. While work in these areas of activity are often led by a specific branch, final products, including the development of various knowledge products, often reflect collaboration and support across Branches, as is the case for surveillance, public education and awareness, and risk assessment. For example, on public education and awareness, IDVPB is the identified lead for IDCCP, including work on media and communications campaigns and related G&Cs project activities.

Table1: Branch involvement in IDCC Program activities

Program Activity	IDVPB	NMLB	SPIB
Leadership and Coordination	X	X	X
Partnerships and Engagement	X	X	X
Surveillance and Monitoring	X	X	
Health Professional Education	X		
Public Education and Awareness	X		
Research and Innovation		X	X
Laboratory Diagnostics		X	
Risk modelling			X
Risk Assessment	X	X	X

Infectious Disease and Climate Change Fund

The Infectious Disease and Climate Change Fund (IDCCF) is the Program's grants and contributions initiative. Since the first solicitation in 2017, it has distributed \$15.6M dollars to 42 projects. As part of the 2024-2025 solicitation, 5 new agreements are anticipated to be signed with approximately \$3.3M funding. These projects have been funded to advance two priority areas:

1. Surveillance and monitoring aimed at building baseline data and enhancing knowledge and expertise to understand, predict, and monitor current and future risks through innovative approaches to surveillance, detection, and analysis of climate-sensitive infectious diseases.

2. Education and awareness to promote the development, dissemination, and uptake of materials tailored for health professionals, Canadian communities, and among priority populations including Indigenous communities and arctic communities, people living in peri-urban areas, and other key population groups.

Over the Program's duration, there have been a total of four solicitations in 2017, 2019, 2021, and 2024. The final solicitation in 2024-2025 was launched to award funding to a maximum of five projects, all due to end when the Program is set to sunset in 2027-2028, aligned with other time-limited climate change funding for other federal departments (e.g., Environmental and Climate Change Canada, Health Canada).

Program Finances

The Program was allocated \$42.8M in total funding for fiscal years 2017-2018 to 2027-2028. Planned Program spending was approximately \$4M annually for IDVPB's activities, which included \$2M annually for grants and contributions funding and \$2M annually for operations. The NMLB was allocated \$1.3M annually in 2023-2024 and 2024-2025 to advance activities associated with vector-borne disease diagnostics, forecasting, risk assessments, and modeling the risks of (re)emergence of climate-sensitive infectious diseases, including vector-borne diseases. Due to organizational changes in 2025-26, funding for these activities are now shared by NMLB (\$560,000) and SPIB (\$606,476).

Evaluation Scope and Approach

The evaluation assessed program impacts, effectiveness of resource allocation, use of data for evidence-based decision making within the Agency, as well as the clarity of roles and responsibilities of PHAC and its partners and stakeholders. It focused on activities related to vector-borne, and other climate-sensitive infectious diseases (CSIDs) from fiscal years 2021-2022 to December 2025. The evaluation did not examine food-borne and water-borne enteric diseases, as these will be evaluated in 2026, as well as antimicrobial resistance activities which will be evaluated in 2027. See Appendix A for a full list of questions and more detailed description of the methodology and limitations.

Findings

Achievement of outcomes

The IDCCP's activities improved access to timely and accurate information, supported the development of enhanced systems and tools to support decision making, and fostered partnerships between PHAC and other One Health actors,

including Indigenous communities, to improve CSID-related knowledge translation. More work is needed to improve knowledge of CSIDs and identify the most effective ways to improve preventive and protective behaviors.

Since 2022, the IDCC Program has transitioned from a focus on Lyme Disease to include broader vector-borne diseases. The lessons learned during the implementation of the Federal Framework on Lyme Disease are now being applied to other vector-borne diseases.

Improved accuracy and timeliness of information on CSID

Program activities increased access to timely and accurate information and led to updated public health guidance and health professional education on the health risks associated with CSIDs.

PHAC used evidence-informed methods, such as stakeholder analysis, surveys, and environmental scans, to identify health professionals' and the public's information needs around CSIDs. It partnered with health professional associations to update public health guidance, enhance nursing education, and share best practices for building capacity on zoonoses. PHAC is seen as a trusted collaborator and expert on climate-related health impacts, providing timely and accurate data through extensive data gathering.

External partners expressed confidence in the Program's data, though Métis partners report limited access to information on climate-sensitive infectious diseases affecting their communities. PHAC's surveillance system minimum performance standards (MPS) indicator results, a self-assessed rating of system performance against Agency priorities, indicate strong performance in timeliness (80%) and data quality (90%). However, MPS ratings for equity is significantly lower at 20%, which means only 20% of related surveillance systems collect sufficiently granular data to support public health interventions to be tailored using an equity lens. Program documents as well as internal and external interviewees also indicated that surveillance data are reliable and shared publicly in a timely manner.

A survey of the Program's partners and stakeholders showed that most respondents agreed that data shared by PHAC were of good quality (71%), reliable (74%), and usable (74%). Fewer respondents (47%) agreed that the data was shared in a timely manner. It should be noted that delays in reporting by PTs often lead to delayed reporting by PHAC. Overall, most respondents (92%) were satisfied with the data shared by the IDCCP.

Increased knowledge base of the public health risks of climate change

The Program's evidence-informed knowledge mobilization strategy led to increased awareness and knowledge about less well known CSIDs among health professionals and communities, but more work is needed to improve knowledge and better understand how to promote behaviour change in relation to CSIDs.

Through an evidence-informed knowledge mobilization strategy, the Program implemented activities that expanded the reach of its knowledge products and enhanced systems and tools. In 2024-2025, the Program's funding recipients produced and delivered 622 knowledge mobilization activities (e.g., workshops, engagement sessions, presentations) that reached an estimated 4 million individuals, including social media impressions and follows, as well as knowledge product subscribers. Through the development of targeted tools and other resources, IDCCF projects enhanced knowledge and understanding of zoonotic infectious disease (ZID) risks, as well as preventive and protective behaviours among health professionals and the Canadian public. Examples of such protective and preventive behaviours include wearing appropriate clothing (e.g., closed-toe shoes, light-coloured and long-sleeves, insecticide-treated clothes), taking a shower after being outdoors and putting clothes in dryers on high heat, and reducing ticks at home by removing piles of leaves and pruning shrubs and trees.

IDCCF projects helped advance the knowledge base on CSIDs in the following ways:

- Generating baseline data and identifying knowledge gaps: Funded activities included projects by the Métis Nation such as the Métis National Council, Manitoba Métis Federation, Métis Nation British Columbia, Métis Nation of Ontario, Métis Nation-Saskatchewan, and Métis Nation of Alberta. These activities focused on generating baseline data to better understand current climate change and health concerns across the Métis homeland. Recipients also conducted surveys, research, and literature reviews to highlight knowledge gaps in disease transmission.
- Discovering new vectors and viruses: A project by Acadia University led to the discovery of eight new mosquito species in Nova Scotia and New Brunswick, and seven in Prince Edward Island. The spread of invasive species *Aedes japonicus* (vectors that can transmit West Nile virus, Japanese, and St. Louis encephalitis) was also detected. These new discoveries and detections helped prepare the Maritimes to respond to changing disease risks associated with mosquitoes.

- **Developing evidence-based systems and tools:** The Canadian Wildlife Health Cooperative expanded a national wildlife health database to accommodate a wider array of surveillance signals. Wildlife health serves as an early warning system for potential risks to human and public health. Earlier identification, detection, and assessment of infectious disease threats, accompanied by increased awareness and education of the public, can reduce the potential negative impact on human health outcomes. The expansion enabled rapid analysis to improve awareness, expedite actions and reduce the amount of time and effort needed to provide data to partners in a timely, efficient manner. In 2024-2025, a total of 6,057 animals were examined through the scanning surveillance program, representing animals from all Canadian jurisdictions. Another project through the Université de Sherbrooke involved the development of a genomic approach to detect and quantify zoonotic mosquito species across Canada by detecting the presence of mosquito larvae in water using environmental DNA and leveraging existing water monitoring programs and the work of community scientists to collect water samples for mosquito detection. There are additional systems and tools currently in development by PHAC and its partners such as a One Health Communications Platform, by Simon Fraser University, that can be deployed at a regional level. The platform aims to integrate, translate, and disseminate One Health messages in an accessible way with practitioners in human, animal, and environmental health to improve regional capacities and raise awareness of current and emerging One Health issues among health practitioners and promote information sharing with patients to manage and mitigate risks.
- **Building the capacity of health professionals:** A project conducted with the Canadian Association of Schools of Nursing explored and identified new nursing practices aimed at mitigating and adapting to health challenges caused by climate change and climate-sensitive infectious diseases. This led to the development of innovative training simulations for nurse educators, students and nurses in practice and the co-development of vector-borne disease prevention strategies with public health nurses and Indigenous nurses, communities, and organizations.

A survey of health systems actors, conducted as part of the evaluation, found that many respondents (64%) agreed that a One Health approach is incorporated in the development and use of PHAC-supported resources, and that the resources are appropriate and culturally relevant (58%). For example, the national West Nile Virus Surveillance System was developed by PHAC in 2000, in collaboration with provincial and territorial (PT) human and animal health partners, Environment and Climate Change Canada, First Nations and Inuit Health Branch (now with Indigenous Services Canada), the Canadian Food

Inspection Agency, the Canadian Wildlife Health Cooperative (CWHC), Canadian Blood Services, Héma-Québec, and others. This system collects and integrates data on human cases, mosquitoes, birds, and other animals transmitting CSIDs to provide a comprehensive national overview of infection trends.¹ The incorporation of a One Health approach in the design and implementation, and support from the Program for enhancement of activities and tools ensures that the data generated finds use in various capacities in provinces and territories, academic institutions, international collaborations, and internally at PHAC with partners like the Office of Travel Health.

Health professionals have high levels of knowledge about Lyme disease, but limited knowledge about other zoonotic infectious disease (ZID).

A 2024 PHAC survey showed that the majority (89%) of physicians and nurses report having general, limited, or no knowledge of ZID (e.g., Leptospirosis, Brucellosis, Tularemia), with very few rating their knowledge as advanced (15% of physicians, 7% of nurses).² In addition, only 32% of health professionals report encountering ZID at least once a month among their patients. Health professionals reported higher confidence in managing ZIDs that they encounter more frequently and which are more well-known, like Lyme disease.³ They rank treatment, prevention, and diagnosis as the topics they would most like to learn about regarding ZIDs. The greatest barrier health professionals face in caring for ZID patients is keeping up with the latest information.

An evaluation survey of health systems actors revealed that most respondents (98%) are aware of the health risks associated with CSID, and their understanding (95%) and awareness (92%) have improved over the past five years, partly due to the Program's activities. However, these respondents are stakeholders and partners of the Program, which might account for their high knowledge levels.

Communities report high levels of awareness of the risks posed by tick-borne diseases, but there are regional and other population-level variations among the public.

A 2021 baseline survey initiated and funded by PHAC and conducted by Health Canada, showed that a large majority of Canadians (89%) have heard of Lyme disease; awareness is highest among rural dwellers (94%), pet owners (91%), and outdoor enthusiasts (91%).⁴ In June 2023, PHAC partnered with the Privy Council Office (PCO) to conduct a survey of 1000 respondents on tick bite prevention and tick-borne disease awareness. It found that 83.7% of respondents were aware that ticks can transmit diseases and 64.6%

knew what to do if they or someone they know was bitten by a tick. Lower levels of awareness were reported among immigrants, urban residents, and people aged 18 to 34, which suggest a need for further efforts to reach these population segments.

In 2024, the Program collaborated with PHAC's Behavioural Science Office and Impact Canada to conduct a survey of the barriers and drivers of tick prevention among 3,171 park visitors.⁵ The survey found that many park visitors were not consistently implementing tick prevention measures, especially the more effective measures (e.g., applying synthetic insect repellent, conducting tick checks). It also highlighted opportunities to enhance the adoption of preventive behaviours:

- Self-reported knowledge about ticks and tick-borne diseases is a key predictor of tick bite prevention behaviour, emphasizing the need to continue improving public education activities.
- Perception of tick prevention as a social norm is strongly associated with increased tick prevention behaviour. As such, reinforcing explicit social norms (e.g., signage about staying on paths) or emphasizing social norms (e.g., how many more Canadians took action this year compared to last year) may help boost engagement.
- Health care workers and pharmacists are highly trusted sources of tick and tick-borne disease information, which suggests that they should play a greater role in communicating with the public about ticks and tick-borne diseases. In addition, most respondents (78%) trust the Government of Canada as a source of information on ticks and tick-borne diseases.

Enhanced systems and tools for decision making

The Program fostered the development of systems and tools to support evidence-based decision making and knowledge translation. There are opportunities to further integrate a One Health approach in Program activities.

PHAC's cross-sectoral collaborations and partnerships, including with the Métis Nation and other Indigenous organizations, led to the development and dissemination of diverse enhanced systems and tools to support evidence-based decision making and knowledge translation. IDCCF funding recipients embraced technological and innovative approaches in developing resources to support decision making and knowledge translation about CSID. They collaborated across sectors to create accessible resources that translated

complex science into formats like plain-language articles, short videos and digital tools, such as teaching resources, podcasts, webinars, and social media, to share information in ways that align with how people already access information. In interviews, PT representatives reported that information sharing by the Program is timely and of good quality and relevance.

The tools developed by PHAC and its partners have expanded the reach of resources, amplified engagement, and increased knowledge access by health professionals and people in Canada. In 2024-2025, IDCCF recipients developed or enhanced 18 surveillance systems and evidence bases (e.g., findings, publications), 112 tools for health professionals, and 28 tools for the public. Examples of systems and tools created or enhanced by PHAC or by funded recipients include:

- Vector-borne diseases surveillance systems and dashboards (PHAC);
- Multi-criteria decision analysis (MCDA) tool with clearly defined criteria for prioritizing zoonoses, including vector-borne diseases, of public health relevance in Canada (PHAC);
- eTick: a public citizen-science web platform for rapid image-based identification and population monitoring of ticks in Canada. eTick is now PHAC's primary passive tick surveillance system as of 2025-2026.
- Other tools developed by recipients include a clinical tool for Lyme disease management, a One Health Communications Platform to improve One Health intelligence in Canada; and a storytelling platform to enhance knowledge and awareness of the health impacts of climate change to name a few.

A survey of Program partners and stakeholders found that most respondents agreed that IDCCP systems and tools are relevant (77%), timely (52%), accurate (65%), and meet their needs (65%). Overall, respondents were satisfied with PHAC-supported IDCCP systems, tools, and resources (92%).

External interviewees identified a need for enhanced surveillance systems that: integrate detection, monitoring, and respond to emerging threats; consolidate data on all CSIDs and climate related factors; and integrate environmental factors, animal, and wildlife data at the population level.

There are opportunities to further integrate a One Health approach into surveillance systems. Continued use of a One Health approach, with its emphasis on collaboration among sectors, would help strengthen monitoring and surveillance, among other activities. External stakeholders identified the Canadian Arctic One Health Network and Canadian Lyme Disease Research Network (CLyDRN) (funded by the Program and the Canadian Institutes of Health Research) as examples of successful collaborations that have led to an increase in surveillance activities modeled on a One Health approach. The Canadian Lyme Disease Research Network, whose funding is scheduled to end in March 2026, is a cross-Canada collaboration of interdisciplinary researchers building an integrated approach to Lyme disease research and surveillance. Its activities helped pave the way for the standardization of active tick surveillance in every province.

Evidence-based decision making by PHAC partners

The IDCC Program's data-generating activities and data management systems enabled it to provide data needed to support decision making by internal and external partners. The Program's dashboards enable more efficient, timely and open data sharing across the One Health spectrum. There may be opportunities to further strengthen the Program's surveillance systems by considering climate-related factors, equity considerations and building on a One Health approach by incorporating population-level domestic animal and wildlife data.

The IDCCP's strong cross-sectoral collaborations with partners and stakeholders, its wealth of data and evidence-generating activities and its enhanced surveillance systems and tools have positioned it as a well-regarded source of timely and accurate data and expertise on climate-sensitive infectious diseases.

PHAC works with PT and other external partners to monitor cases of CSIDs in Canada. PTs voluntarily report tick-borne (Lyme disease, anaplasmosis, babesiosis, Powassan virus disease) and mosquito-borne diseases (West Nile virus) that are nationally notifiable through the Canadian Notifiable Disease Surveillance System (CNDSS). The surveillance of tick-borne and mosquito-borne diseases reflects a One Health approach, which recognizes the interconnectedness of human, animal, and environmental health, to collect, integrate, analyze, and disseminate national surveillance data on human, vector, and animal cases.^{6,7} Weekly and annual surveillance system reports are made available to provincial health authorities and other federal partners.

The interactive dashboards enable more efficient, timely, and open data sharing for the benefit of health care professionals, health system actors and people living in Canada. They provide users with easy access to the most recent data available, as well as data from the past 20+ years. They also allow users to easily search, explore, and understand health information on tick-borne (TBD) and mosquito-borne diseases (MBD), inform themselves of past and current risk areas, and enable them to take action to protect their health and the health of their family members.

PHAC collaborates with internal and external partners and conducts research to strengthen its data collection activities and data management systems. It conducted an environmental scan to assess how other agencies like the US Centers for Disease Control and Prevention and the European Centre for Disease Prevention and Control store large amounts of data in a centralized system. It continues to work with the Data Transformation Branch (DTB), HC and the Data Management and Innovation Analytics (DMIA) group within PHAC. Through an initiative aimed at modernizing its data management systems, the Program developed and launched the ZoDIACS (Zoonotic Disease Information and Classification System) database to support the collection, analysis and dissemination of information about zoonotic diseases and threats. ZoDIACS is a comprehensive system capable of integrating with other platforms and databases used by branches within PHAC. By standardizing surveillance data, it has improved data quality and analysis, reduced delays in data sharing, and opened up opportunities to automate routine tasks. For example, it populates PHAC's interactive TBD and MBD surveillance dashboards.

Evidence-based decision making by external partners

Multisectoral collaborations with external partners supported use of Program data in decision making and knowledge translation in the following ways:

- Use of Program data by PTs to inform local public health actions and policies. During the 2024 global dengue outbreak, the Public Health Risk Sciences division of the NMLB completed a dengue risk assessment for Canada, producing models and risk maps shared with provincial (British Columbia Centre for Disease Control) and local (Windsor-Essex County health unit) public health teams to inform their planning for the 2025 mosquito surveillance season. These knowledge products were also shared with the WHO and are being considered for use in the WHO's dengue analytics Community of Practice.

- Use of Program data, by PHAC and partners, to support enhancement of surveillance activities. PHAC collaborates with diverse partners like PT human and animal health services, Canadian Blood Services, Héma-Québec, CWHC, the Canadian Food Inspection Agency (CFIA), and others, on the National West Nile Virus (WNV) surveillance system. This multisectoral collaboration is based on a One Health approach. The Program's surveillance and risk assessment activities also contributed to the early assessment of Oropouche virus disease. According to Program documents, PHAC's early assessment and funding through the IDCCF, led to the co-development of an evidence-based position statement in collaboration with national experts and professional associations to support the timely identification, diagnosis, and management of Oropouche virus disease, on pregnancy and pregnancy outcomes.

Through its collaborative work, the Program provides evidence-informed advice and policy guidance on key domestic and international files to support zoonotic disease management. Internationally, the Program provides subject matter expertise related to One Health and climate-sensitive infectious disease input into G7, G20, the Pan-American Health Organization (PAHO), the World Health Organization's (WHO) Pandemic Agreement, and other international efforts.

Evidence-based decision making by internal partners

Internally, the Program works with other PHAC departments like the Office of Travel Health (OTH) which collaborates closely with the IDCCP on outbreak-related response activities, travel-related surveillance, and other technical initiatives.

With the OTH, the Program has established a bidirectional data sharing process that is mutually beneficial. The OTH detects and assesses health risks to Canadian travellers, and in collaboration with its Expert Advisory Body CATMAT (the Committee to Advise on Tropical Medicine and Travel) develops advice, recommendations, and health promotion material for the travelling public and health care professionals. The Program reviews and provides input into travel-related statements and guidance concerning climate-sensitive infectious diseases. Recent statements and guidance have been issued on chikungunya and dengue vaccines. The Program has developed an internal laboratory-based dashboard which provides timely data on confirmed cases of select imported zoonotic diseases (Zika, chikungunya, and dengue). The OTH anticipates that it will be helpful in informing its travel health advice products.

Interviews with internal Program partners noted success in integrating surveillance and modeling data to inform public health guidance. This evidence-based approach ensured that scientific findings were directly translated into actionable public health measures. For example, the SPIB (formerly NMLB) develops risk maps and graphs which are used to update surveillance system dashboards with geographic and historical data to show geographical and historical trends in distribution of pathogens; it also provides Geographic Information System (GIS) support to PHAC programs including the Health Portfolio Emergency Operations Centre on Zika virus and Ebola virus. As noted by an internal interviewee, the Program's work has influenced provincial surveillance efforts, particularly in mapping possible risk areas for the establishment of disease vectors like the Asian tiger mosquito, which can transmit dengue and chikungunya viruses. This has driven surveillance efforts in provinces such as British Columbia, Quebec, and Ontario.

Improving Program outcomes

There are opportunities to improve knowledge and awareness, to further promote the adoption of preventive and protective measures, and to strengthen decision making by the Program and its partners and stakeholders.

- **Addressing knowledge gaps:** Through a partnership with PHAC's Behavioural Science Office, the Program is working to better understand how to influence preventive and protective behaviors in relation with CSIDs. One example is the study examining the barriers and drivers of tick bite prevention. However, key knowledge gaps remain to be addressed in the following areas:
 - Unique barriers and drivers of preventive behaviour among priority populations and the impact of CSIDs on these groups;
 - Systematic evaluation of existing awareness tools and resources to determine appropriate messaging strategies; and
 - Effectiveness and implementation of targeted interventions.
- **Surveillance system integration:** A Canadian Public Health Association report, summarizing health professional perspectives on climate change and infectious diseases in Canada, noted that there is a need for enhanced surveillance systems that integrate detection, monitoring, and response to emerging threats. Interviewees also identified opportunities to improve surveillance through the integration of climatic factors and changes in weather patterns (e.g., temperature and precipitation), environmental factors (e.g., deforestation, rapid urbanization), and of

veterinary and wildlife data (e.g., veterinary clinics, regulated farms, wildlife) at the population level. The WHO's *Global Vector Control Response 2017 to 2030* (GCVR) notes that the use of climate and ecosystems data may be used to improve early warning of disease expansion, outbreaks, changes in transmission dynamics conditions, and also to redirect vector control and surveillance activities.⁸

PHAC's surveillance systems dashboards for mosquito-borne disease, West Nile Virus and Eastern equine encephalitis virus include data for humans, mosquito pools, and other animals (horses and dead wild birds) cases reported to PHAC by PTs, while tick-borne disease dashboards include recent and historical data for human cases reported by PTs to PHAC. Currently, none of these capture climate data. Further enhancements of PHAC's surveillance systems require coordinated efforts involving multiple partners across governmental and non-governmental sectors.

- **Co-creation with Indigenous partners:** There is an opportunity for improved collaboration with Indigenous partners focused on the co-development of projects and activities that address data gaps of vector-borne diseases among Indigenous populations. Based on the program's experience with the 2024–25 IDCCF solicitation, co-development opportunities were offered to National Indigenous Organizations through PHAC's Indigenous Relations Team. While these opportunities were not pursued by NIOs during the cycle, future engagement will be guided by programmatic needs and the evolving interests and capacity of NIO partners. A review of Program documents, including a gap analysis, needs assessments, and annual project reports confirms the paucity of data on the impact of CSIDs on Indigenous communities, and the lack of targeted interventions aimed at promoting the adoption of protective behaviours.

In the final solicitation for the IDCCF, five projects focussing on First Nations, Inuit and Métis community-driven initiatives that integrate Indigenous knowledge with Western science and Indigenous cultures, values, traditions and knowledge were awarded funding. The projects will build capacity and empower Indigenous communities and health professionals and drive action on climate change, infectious diseases and human health. To further address gaps in the representation of the Territories within the IDCCF's previous and current funding envelopes and in addition to the solicitation, the IDCCF established a funding carve out over three fiscal years dedicated to the Northern Wellness Approach, an innovative funding model that streamlines contribution agreements with the Territories (Yukon, Northwest Territories and Nunavut) enabling the federal government to

support the health of people living in the North in a more streamlined, less burdensome approach based on Territorial Wellness Plans.

Resource allocation and clarity of roles and responsibilities

Resource allocation is transparent and evidence-informed, guided by a commitment to a One Health approach and the needs of priority populations. While working level roles and responsibilities are clearly delineated, strategic planning and decision making processes are less well-defined creating perceptions of unequal partnership roles. The Program has initiated measures to improve inter-branch coordination and information sharing.

Resource allocation

As documented in the financial overview, funding and staffing were provided to support implementation of Program activities. The funds allocated to the Program over the evaluation period were overspent by 3% (refer to Appendix C for more details).

Between 2021-2022 and 2024-2025, the Program's annual expenditure averaged \$10.3 million, comprised of:

- \$900,000 for NMLB's activities (which also included salary dollars for approximately 5-6 FTEs); and
- \$9.4 million for IDVPB (which also included salary dollars for 6 FTEs):
 - \$5.9 million in estimated annual expenditures
 - Including \$2.2 million allocated to the IDCCF (IDCCF funding included a dedicated funding of \$800,000 over 5 years allocated to the Manitoba Métis Federation, the Métis National Council and its governing members).
 - \$3.5 million in temporary funding received within the Detect-Understand-Act Framework and PHAC renewal, which has since ended. Temporary funding was dedicated to detecting and assessing zoonotic signals, conduct surveillance of high consequence pathogens of zoonotic origin, and develop

information and advice for a variety of audiences including health professionals.

There were a significant number of employee reassignments to support the federal COVID-19 response and other public health emergencies, which delayed the implementation of some Program activities. Between 2020 and up to the present, Program staff across branches including at senior-management levels, were reassigned in response to concurrent public health emergencies such as the COVID-19 pandemic, the Mpox outbreak and the Avian Influenza A (H5N1) outbreak. This resulted in the need to refocus priorities and slow or suspend some Program activities like the One Health Collaborative Hub and routine zoonotic surveillance activities.

In addition, the Health Professional Guidance Team was disbanded on April 1, 2025, following the end of its temporary funding. Modest program activities related to improving the knowledge and capacity of health professionals are supported through the IDCCF.

Support for priority populations

Resource allocation to fund recipients is informed by equity considerations with a strong focus on multisectoral collaboration and priority populations, including Métis communities, but there remain opportunities for co-development of projects and further streamlining reporting requirements.

Allocation to IDCCF recipients is evidence-informed, with a focus on the needs of priority populations (including youth, health professionals and park staff), a One Health approach, and multisectoral collaboration (e.g., partnership with Parks Canada and Indigenous Services Canada). For example, the Program funded Scouts Canada to develop and integrate tick awareness materials into their personal achievement badge program and e-learning modules to promote youth learning about climate change, adaptation measures, tick-borne illnesses and tick safety.⁹

The Program prioritizes equity considerations in its activities (e.g., collaborating with PHAC's Health Equity Integration Team to integrate the Sex- and Gender-Based Analysis (SGBA) Plus lens in IDCCF reporting tools and templates or seeking guidance on official language minority communities. However, there is room for improving collaboration with Indigenous partners and further embedding equity considerations in data collection efforts. PHAC's dedicated funding for Métis communities was welcomed, though challenges such as complex reporting requirements, paucity of data on Métis communities,

and lack of long-term support mechanisms were noted. They emphasized the need for co-developed and culturally grounded projects, and sustained collaboration. It should be noted that in the final solicitation the IDCCF in November 2025, funding was awarded to First Nations, Inuit, and Métis community-driven initiatives that integrate Indigenous knowledge and cultures, values, and traditions to raise awareness and drive action on climate change and infectious diseases.

A survey of Program partners and stakeholders show that under half of respondents (45%) agree that the Program understands the needs of priority populations, 18% were neutral, while 32% were not sure. Similarly, when asked if the Program considers the needs of priority populations in planning and implementing program activities, most respondents agreed (36%) or were not sure (32%). Respondents who were not sure were mostly those from other federal departments, PTs, and academic or research organizations.

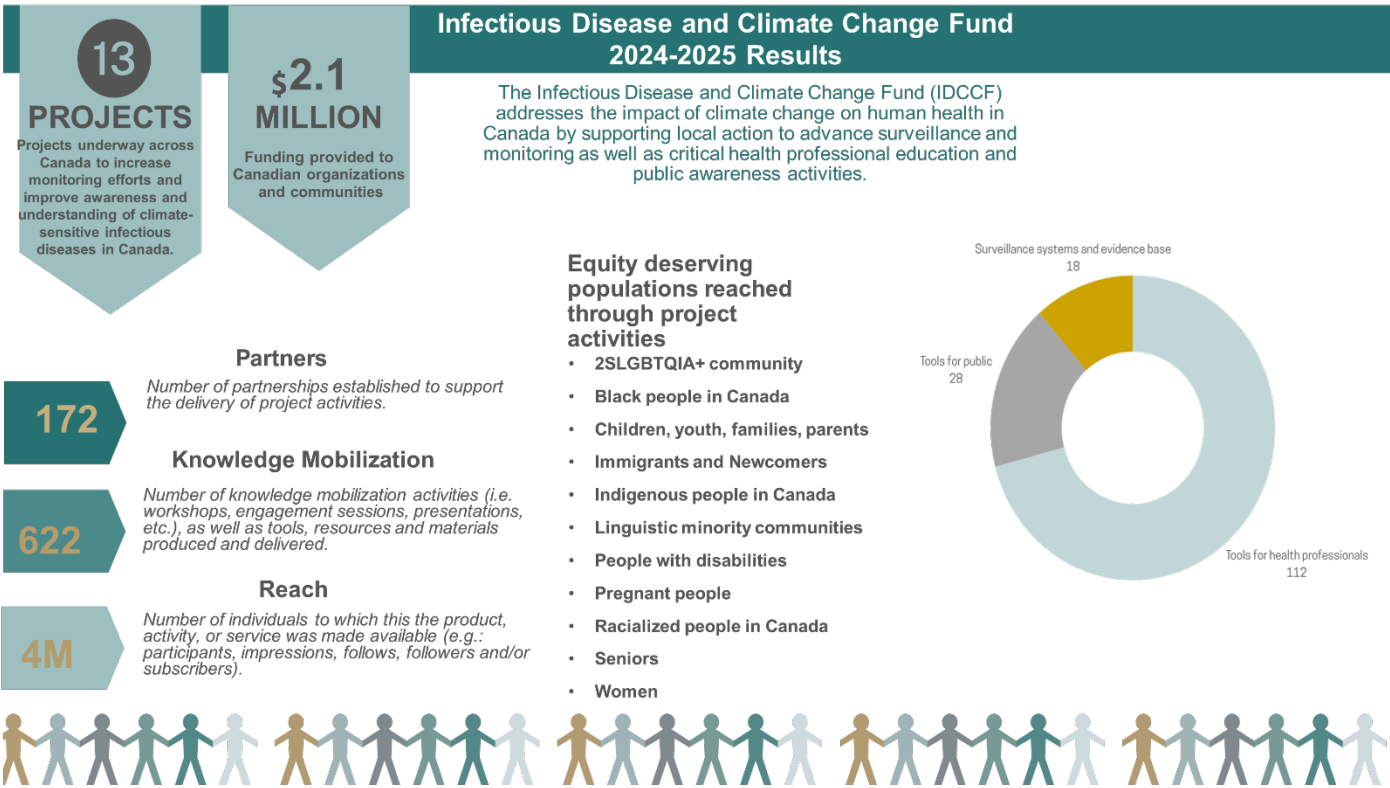


Figure 2: Visualization of IDCCF impacts and achievements 2024-2025.

Clarity of roles and responsibilities

Roles and responsibilities of the three branches are well documented and understood by partners and stakeholders. As well, the working groups, committees, and review panels convened under the Program have well-defined terms of references, roles and responsibilities, key activities, membership, and decision-making processes.

The Program's strategic planning and decision-making mechanisms and processes are less well defined and understood, contributing to perceptions of imbalance in partnership roles. Interviewees suggested that there is room for improvement in overall collaboration and information sharing among the branches, as well as coordination and communication of strategic decisions. Internal interviewees noted that there is ongoing work to better clarify roles and responsibilities and improve the governance structure. While regular tri-lateral meetings are occurring among implicated program directors, the Program has initiated measures to put in place quarterly tri-lateral meetings among implicated Directors General across IDVPB, NMLB, and SPIB. These measures are intended to improve inter-branch coordination and information sharing.

Conclusions and Recommendations

Conclusions

Achievement of Program outcomes

The IDCCP's activities improved access to timely and accurate information, supported the development of enhanced systems and tools to support decision making, and fostered partnerships between PHAC and other One Health actors, including Indigenous communities, to improve CSID-related knowledge translation and to reduce the health effects of climate change. There is more work needed to improve knowledge of CSIDs and identify the most effective ways to improve preventive and protective behaviors.

Use of Program resources and clarity of roles and responsibilities

Resource allocation is evidence-informed and underpinned by a commitment to the needs of priority populations and target audiences. The COVID-19 pandemic slowed the implementation of some activities due to the reassignment of staff. Roles and responsibilities at the working level are clearly delineated among the lead branches, but the Program's strategic planning and decision-making processes are less well-defined and

have contributed to perceptions of unequal partnership roles. The Program has initiated measures to strengthen overall planning and coordination among responsible senior managers to ensure a shared understanding of Program strategies and objectives.

Evidence-based decision making by internal and external partners

Through its cross-sectoral collaborations and partnerships with other One Health actors, including Indigenous communities, the Program supported the development of enhanced systems and tools to strengthen knowledge translation. Data-generating activities (e.g., monitoring, surveillance, modelling) and data management systems and tools like dashboards have enabled effective data sharing to support decision making among internal and external partners. While the Program has modernized and strengthened its surveillance systems and data management tools, there are opportunities to further enhance decision making by embedding equity considerations and building on a One Health approach by incorporating climate-related factors with population-level domestic animal and wildlife data across surveillance systems and activities. This would require substantial coordinated efforts and resources among multiple governmental and non-governmental partners, which go beyond the Program's current mandate.

Recommendations

The IDCCP has made progress toward achieving its medium-term and long-term outcomes but there is an opportunity to further improve implementation and climate resiliency by Canadians.

Recommendation 1: Collaborate with partners to address knowledge gaps and improve adoption of preventive and protective behaviours.

The Program fostered the development of systems and tools to support evidence-based decision making and knowledge translation. It has also improved access to timely and accurate information about CSIDs, but there remain some important knowledge gaps, namely:

- The impact of enhanced systems and tools and awareness activities on preventive and protective behaviours;
- Interventions aimed at bridging the knowledge-action gap on preventive behaviours
- Impact of CSIDs on priority populations including Indigenous partners.

The Program can advance its goals by collaborating with partners to explore and address knowledge gaps, with recognition that actions by a range of government and multi-sector partners can influence adoption of preventive and protective behaviours.

Appendix A: Methodology

Evaluation questions

1. To what extent has the Program made progress in preparing for and protecting people in Canada from climate-sensitive infectious diseases?
 - a) Is there an increased knowledge base of public health risks associated with climate-sensitive infectious diseases particularly related to risks in the health sector, communities and vulnerable populations?
 - b) Are there enhanced systems and tools to support evidence-based decision making?
 - c) Are public health system actors and people in Canada, including Indigenous communities, taking measures to reduce the health effects of climate change?
2. How efficiently are resources, roles, and responsibilities allocated and managed across the various program areas?
3. To what extent is the Program structured to support internal and external evidence-based decision making using surveillance and monitoring data, research, and other sources of data?

The evaluation team collected and analyzed multiple lines of evidence which were triangulated to improve the reliability and credibility of evaluation findings and conclusions. The data was collected using various methods outlined below.

Data Collection Sources and Methods

This evaluation focused on the performance of the IDCC Program over fiscal years 2021-2022 to December 2025-2026.

The evaluation team collected and analyzed multiple lines of evidence which were triangulated to improve the reliability and credibility of evaluation findings and conclusions. The data was collected using various methods outlined below.

Document and file review

The evaluation team received approximately 1,075 files and reviewed 531, including both internal and public documents submitted by the IDVPB and NMLB. Internal documents included strategic planning documents, annual reports, work plans, operational plans, governance documents, surveys, newsletters, consultation reports, meeting summaries, guiding policies, briefing materials, performance reports, and summary reports. Public documents included departmental reports, Canada.ca web pages, publicly available dashboards, and external reviews. Data from documents was collated and analyzed by indicators and themes using evidence matrices.

Interviews

Interviews were conducted virtually based on a predetermined interview guide. Transcriptions and artificial intelligence recaps were captured for each interview. This information was validated by an analyst and used to supplement manual note taking. Thematic analysis of interview notes was conducted using NVivo software. In total, structured internal and external interviews took place with the following 34 individuals:

- 11 staff members from branches involved in the IDCCP;
- 6 internal staff from other PHAC and Health Canada branches; and
- 19 external stakeholders and partners; including:
 - 3 individuals from one OGD,
 - 9 representatives of PT government ministries or health authorities,
 - 2 representatives of Métis governments,
 - 3 IDCCF funding recipients and
 - 2 experts from health professional associations or academia.

Performance data review

Performance data from the following sources was reviewed:

- PIP Data for fiscal years 2021-2022 to 2024-2025; and
- Other internal tracking and reporting dashboards (i.e., administrative data).

Survey Questionnaire

The evaluation administered a bilingual online stakeholder survey via Qualtrics between August 27, 2025, and September 22, 2025. The survey was distributed to 144 unique email addresses from which a total of **38 fully completed responses** were collected, yielding a response rate of 26%. Survey respondents were from:

- other government departments (other than PHAC);
- representatives of provincial, territorial, or municipal governments; and
- academia and research.

The survey results were analyzed in aggregate form, identifying key themes related to stakeholder and partner awareness and use of PHAC's resources and tools, data-sharing mechanisms, and communication channels between the Program and its external partners. Analysts used Qualtrics to create crosstabs on Microsoft Excel to run further analysis and identify themes among different stakeholder groups.

Financial data review

Financial data provided by the Chief Financial and Operations Management Branch was reviewed, including budgeted versus actual expenditures.

Literature review

In addition to the documents reviewed as part of the document review, the Program provided several references to contribute to the literature review. To supplement that literature, the evaluation scanned recent literature using the generative artificial intelligence platform Microsoft Copilot to identify best practices and lessons learned from similar programs in the US, UK, New Zealand and Australia. The information identified by this scan was reviewed and validated by an analyst.

Use of generative AI

The evaluation used a secure version of the Copilot tool integrated into Microsoft Office applications to assist with several administrative and editing tasks. Throughout January to March 2025, Copilot was used to:

- Auto-transcribe interview notes.
- Clean interview notes to remove errors, repetitions, and formatting issues.
- Summarize key findings from evidence summaries prepared by evaluation analysts to inform findings discussions.
- Run data cleaning steps in Excel (i.e., remove spaces, flag, and correct inconsistent entries).

All Copilot-generated output was thoroughly reviewed against raw data (e.g., interview recordings, original source documents) for accuracy. Copilot was not used to analyze or interpret raw data.

Limitations

The evaluation team used triangulation to analyze data collected by these various methods to increase the reliability and credibility of the evaluation findings and conclusions. Still, most evaluations face constraints that may affect the validity and reliability of findings. Table 2 outlines the limitations encountered during evaluation, and the mitigation strategies that were put in place.

Table 2: Limitations, impacts and mitigation strategies

Limitation	Impact on the evaluation	Approach for addressing the limitation
There were a limited number of interviews with other government departments and Indigenous organizations.	The findings for other government departments could not be generalized across all federal partners. The findings for Indigenous organizations could not be generalized across First Nations, Métis and Inuit groups.	Although limited, interviews were conducted with other government departments and Indigenous organizations to ensure adequate representation among those who engage with the Program. The evaluation also reviewed consultation input received from partners and stakeholders, as well as

Limitation	Impact on the evaluation	Approach for addressing the limitation
		survey data, to supplement these findings.
The survey response rate was low for some stakeholder groups.	The findings from the survey could not be generalized for the following groups: groups representing Indigenous populations or communities; groups representing persons with lived experience of climate-sensitive infectious disease; health professionals; and non-profit.	The evaluation drew on interviews with other One Health actors, as well as public opinion research to supplement survey findings.
External surveys reported are all online surveys which are prone to certain biases and drawbacks.	These surveys, like many online surveys, lack representativeness, generalizability, and may be prone to self-selection bias. The findings are to be interpreted in that light.	The evaluation analyzed and synthesized findings of several surveys conducted by government departments such as PHAC, Health Canada, Impact Canada, and external organizations including the Canadian Public Health Association, and Canadian Veterinary Medical Association. These surveys also had relatively large sample sizes.

Evaluation lenses and government priorities

The evaluation applied several lenses and frameworks to assess the progress and impacts of the IDCCP with respect to Government of Canada priorities.

In support of the United Nations' 2030 Agenda for Sustainable Development and the United Nations' Sustainable Development Goals, the IDCCP's activities contribute to Goal 3: "Good Health and Well-Being", in particular, indicator 3.D related to

strengthening the capacity of all countries for early warning, risk reduction, and management of national and global health risks.

The evaluation applied an SGBA Plus lens to its assessment of the Program. Although official languages were not specifically examined, they were not found to be an issue for the Program's activities.

Evaluation governance

The Office of Audit and Evaluation worked closely throughout the evaluation with a Program contact in IDVPB, NMLB and SPIB to access documents and performance data, and to identify stakeholder groups. The scope for this evaluation was presented at the PHAC Performance Measurement and Evaluation Committee (PMEC) in March 2025 to receive input and guidance on the evaluation questions. The preliminary findings were presented to PMEC in October 2025 and the final report and Management Response and Action Plan developed by IDVPB, NMLB and SPIB were also presented to PMEC in January 2026 where committee members recommended the evaluation for the President's approval.

Appendix B: Performance Data

The tables below depict indicators of performance (outputs and outcomes) of the IDCCF and the IDCCP.

Outputs: IDCCF

Table 3 below depicts the reach, access and number of tools developed by the IDCCF's 32 funded projects between 2021-2022 and 2024-2025.

Table 3: 2021-2022 to 2024-2025

Year	Number of public health tools for health professionals	Number of prevention and protection tools for the public	Number of surveillance systems and evidence bases	Reach (total participants, impressions, follows, and subscribers)	Access (total page views, shares and download)
2021-2022	156	80	18	2,288,279	536,878
2022-2023	129	156	19	6,884,328	182,289
2023-2024	146	172	16	1,544,363	506,086
2024-2025	112	28	18	3,965,191	201,498
Grand total	543	436	71	14,682,161	1,426,752

Medium-term outcomes

The IDDCP's medium-term outcomes are:

1. Increased knowledge base of the health risks associated with climate-sensitive-infectious diseases; and
2. Enhanced systems and tools support evidence-based decision making.

Table 4: Results for medium-term outcome indicators, 2021-2022 to 2024-2025

Indicator	Baseline 2021-2022	Annual Goal	Target 2026-2027	Target 2030-2031
Medium-term outcome 1: Increased knowledge base of the health risks associated with climate-driven infectious diseases				
Number of meaningful partnerships and collaborations with organizations, including the Métis Nation, on climate change and emerging infectious diseases	42	4	55	75
Medium-term outcome 2: Enhanced systems and tools support evidence-based decision making				
Number of new and enhanced systems and tools, including public health tools and resources for health professionals, prevention and protection-related tools, and resources for public consumption	13	2	20	35

Long-term outcomes

The Program's long-term outcomes are as follows:

3. Timely and accurate information related to the spread of climate-sensitive infectious diseases across Canada and how they are impacting communities and populations differently
4. Knowledge and common practices for responding to food-borne, water-borne, and zoonotic infectious diseases by standardizing, with health professionals, public health tools and resources (e.g., public health guidance, clinical practice guidelines, health professional learning modules)
5. Improved understanding of climate-sensitive infectious disease risks and means of prevention and protection amongst health professionals and Canadians

6. Preventing transmission or spread of disease by increasing understanding of how various food-borne, water-borne and zoonotic infectious diseases impact human health

Two of the indicators in Table 4 above and an additional indicator related to access to Agency-funded online resources are used to assess progress toward achievement of the long-term outcomes. The fourth long-term outcome has an additional indicator, the number of reported cases of emerging infectious diseases. As of the time of the evaluation, diseases have not yet been identified to include in the calculation of this measure, and the Program has noted that further work is needed to refine the measure.

Table 5: Results for long-term outcome indicators, 2019-2020 to 2024-2025

Indicator	Baseline 2021-2022	Annual Goal	Target 2030-2031
Number of meaningful partnerships and collaborations* with organizations, including the Métis Nation, on climate change and emerging infectious diseases	41	4	75
Percent (%) increase in access to Agency or Agency-funded online resources that provide information and education related to climate-driven infectious diseases	0%	Not set	50%
Number of new and enhanced systems and tools, including public health tools and resources for health professionals, prevention and protection-related tools, and resources for public consumption	11	2	35

* Meaningful partnerships and collaborations have been described by the Program as those that will facilitate the development and dissemination of knowledge and information related to climate change and emerging infectious diseases. Additionally, collaborations may include, but are not limited to various types of engagement, such as meetings, discussions, formal or informal networks, working groups or committees established, joint actions, agreements, and activities to develop or fund a product for use or uptake by others (e.g., Canadians, communities, health professionals, or decision makers).

Appendix C: Program Expenditure

The total combined expenditures for the IDCCP were approximately \$36.1 million, compared to planned spending of approximately \$34.99 million, resulting in a net overspending of \$2.54 million (3%).

While both branches experienced year-over-year fluctuations, IDVPB accounted for the majority of total spending and variance, representing approximately 90% of total expenditures. Salaries constituted the largest cost driver across both branches, averaging about 63% of total spending, followed by G&Cs at 23%, and O&M at 14%.

Table 6: Total planned and actual expenditures for the IDVPB, 2021-2022 to 2024-2025*

Fiscal Year	Total Salary		Grants and Contributions		Overhead and Maintenance		Total		
	Planned spending (\$)	Actual expenditure (\$)	Planned spending (\$)	Actual expenditure (\$)	Planned spending (\$)	Actual expenditure (\$)	Planned spending (\$)	Actual expenditure (\$)	% planned spending
2021-2022	\$3,332,878	\$4,931,423	\$2,232,620	\$2,288,511	\$958,362	\$585,115	\$6,523,860	\$7,805,049	119.64%
2022-2023	\$4,929,948	\$5,327,385	\$2,200,000	\$1,851,332	\$1,158,362	\$496,785	\$8,288,310	\$7,675,502	92.61%
2023-2024	\$4,266,606	\$5,673,165	\$2,587,258	\$2,574,822	\$1,108,362	\$1,438,091	\$7,962,226	\$9,686,078	121.65%
2024-2025	\$6,573,048	\$5,886,398	\$2,152,191	\$2,141,899	\$968,496	\$704,832	\$9,693,735	\$8,733,129	90.09%
Total	\$19,102,480	\$21,818,371	\$9,172,069	\$8,856,564	\$4,193,582	\$3,224,823	\$32,468,131	\$33,899,758	104.41%

* Includes temporary funding received within the *Detect-Understand-Act Framework and PHAC renewal*, which has since ended.

Table 7: Total planned and actual expenditures for NMLB, 2021-2022 to 2024-2025

Fiscal Year	Total Salary		Overhead and Maintenance		Total		
	Planned spending (\$)	Actual expenditure (\$)	Planned spending (\$)	Actual expenditure (\$)	Planned spending (\$)	Actual expenditure (\$)	% planned spending

2021-2022	\$0	\$523,951	\$0	\$187,113	\$0	\$711,064	NA
2022-2023	\$0	\$633,905	\$0	\$77,375	\$0	\$711,280	NA
2023-2024	\$662,791	\$505,889	\$601,910	\$458,351	\$1,264,701	\$964,240	76.24%
2024-2025	\$668,978	\$698,777	\$588,259	\$542,324	\$1,257,237	\$1,241,101	98.72%
Total	\$1,331,769	\$2,362,523	\$1,190,169	\$1,265,163	\$2,521,938	\$3,627,686	NA

**Table 8: Total planned and actual FTEs for IDVPB,
2021-2022 to 2024-2025**

Fiscal Year	Planned	Actual	% of planned spent
2021-2022	30	38	126.67%
2022-2023	43	43	100%
2023-2024	37	41	110.81%
2024-2025	54	42	77.78%
2025-2026	28	27	96.42%

Note: Table 8 does not include NMLB's planned FTEs, between 2021-22 and 2024-25. NMLB funded approximately 5-6 FTEs annually between 2021-2022 and 2024-2025 and in 2025-2026 there were 2 FTEs, (approximately 3-4 FTEs were transferred to SPIB).

Note: 2025-2026 data was provided in June 2025.

End Notes

- ¹ Todoric D, Vrbova L, Mitri ME, et al. An overview of the National West Nile Virus Surveillance System in Canada: A One Health approach. *Can Commun Dis Rep*. 2022;48(5):181-187. Accessed October 28, 2025. <https://pmc.ncbi.nlm.nih.gov/articles/PMC10262935/>
- ² Public Health Agency of Canada. *Understanding Canadian Health Professionals' Knowledge, Attitudes, Opinions, and Perceptions Towards Zoonotic Infectious Diseases Survey and Interviews 2023-2024.*; 2024. Accessed October 24, 2025. https://publications.gc.ca/collections/collection_2024/aspc-phac/H14-625-2024-eng.pdf
- ³ Canadian Public Health Association. *Infectious Disease and Climate Change in Canada: Key Informant Interviews.*; 2021. https://www.cpha.ca/sites/default/files/uploads/resources/idcc/CPHA_IDCC_Key_informant_interviews.pdf
- ⁴ Health Canada. *Baseline Survey on Lyme Disease and Other Tick-Borne Diseases.*; 2021. Accessed July 23, 2025. https://publications.gc.ca/collections/collection_2022/sc-hc/H14-384-2021-eng.pdf
- ⁵ Public Health Agency of Canada, Impact Canada, Privy Council Office. *Understanding Barriers and Drivers of Tick Prevention Behaviours among Canadian Park Visitors.* Accessed October 28, 2025. https://impact.canada.ca/sites/default/files/2025-03/EN-TickPrevention_2.pdf
- ⁶ Public Health Agency of Canada. *Lyme Disease in Canada - Surveillance Report (Annual Edition).* 2022. Accessed October 28, 2025. <https://www.canada.ca/content/dam/phac-aspc/documents/services/publications/diseases-conditions/lyme-disease-surveillance-canada-annual-edition-2022/lyme-disease-surveillance-canada-annual-edition-2022.pdf>
- ⁷ Public Health Agency of Canada. *West Nile Virus and Other Mosquito-Borne Disease Surveillance in Canada Report: Annual Edition 2022.*; 2022. Accessed October 28, 2025. <https://www.canada.ca/content/dam/phac-aspc/documents/services/publications/diseases-conditions/west-nile-virus-surveillance/2022/annual-edition/annual-edition.pdf>

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- ⁸ World Health Organization. *Global Vector Control Response (GVCR) 2017–2030*. World Health Organization; 2017. Accessed October 29, 2025. <https://iris.who.int/server/api/core/bitstreams/68d92417-dd44-437d-bb8b-2befb7bdc732/content>
- ⁹ Canada PHA of. Infectious Diseases and Climate Change Fund. August 28, 2017. Accessed November 3, 2025. <https://www.canada.ca/en/public-health/services/funding-opportunities/infectious-diseases-climate-change-fund.html>