PUBLIC HEALTH AGENCY OF CANADA 2022–23 DEPARTMENTAL RESULTS REPORT

The Honourable Mark Holland, P.C., M.P.
Minister of Health

The Honourable Ya'ara Saks, P.C., M.P.
Minister of Mental Health and Addictions and Associate Minister of Health

Public Health Agency of Canada | Agence de la santé publique du Canada

Canada

TO PROMOTE AND PROTECT THE HEALTH OF CANADIANS THROUGH LEADERSHIP, PARTNERSHIP, INNOVATION AND ACTION IN PUBLIC HEALTH.

—Public Health Agency of Canada

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To obtain additional information, please contact:

Public Health Agency of Canada
130 Colonnade Rd
Address Locator 6501H
Ottawa, ON K1A 0K9
Toll free: 1-844-280-5020
Fax: 613-941-5366
TTY: 1-800-465-7735
E-mail: publications-publications@hc-sc.gc.ca

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TABLE OF CONTENTS

FROM THE MINISTERS

As the Minister of Health and the Minister of Mental Health and Addictions and Associate Minister of Health, we are proud to present the Public Health Agency of Canada's (PHAC) 2022–23 Departmental Results Report. This Report looks back on a significant year in PHAC's pandemic response, as well as recovery efforts to rebuild a stronger and more resilient Canada.

Throughout 2022–23, PHAC provided public health leadership and guidance to help the people across Canada keep themselves and their loved ones safe. Applying the latest scientific evidence, PHAC helped ease border travel requirements, established a pan-Canadian wastewater surveillance network, and increased research on the longer-term impacts of SARS-CoV-2 infection. PHAC also provided critical leadership in responding to outbreaks of mpox by applying best practices and lessons learned from the Agency's COVID-19 response. This included deploying wastewater testing and monitoring systems, researching potential vaccines and therapeutics, and piloting an external science advisory panel.

Vaccines and COVID-19 treatments remained key to mitigating severe health outcomes caused by COVID-19. This saved lives, reduced illness, and lessened the burden on Canada's healthcare systems. In collaboration with federal, provincial, territorial, and Indigenous partners, PHAC secured and distributed over 120 million COVID-19 vaccine doses across Canada in 2022–23. To help strengthen global public health systems, PHAC continued supporting equitable access to safe and effective vaccines which included donating more than 10.8 million surplus doses to the COVID-19 Vaccines Global Access (COVAX) and sharing 3 million doses through bilateral agreements.

The mental health and well-being of people across Canada remained a priority for PHAC as the Agency focused on improving the quality of available care and inclusivity. In 2022–23, PHAC announced that the Centre for Addiction and Mental Health will lead the coordination of service delivery for 9-8-8, the new three-digit number for suicide prevention and emotional crisis. This number will offer callers access to 24/7/365, bilingual, trauma-informed, culturally appropriate, and immediate suicide prevention and emotional distress support through phone and text.

PHAC made targeted investments into delivering services and programs that support the mental health of specific equity-deserving communities. This included launching a comprehensive national health equity strategy that addresses the social determinants of health with a focus on priority populations such as Indigenous Peoples and persons living with low-income. PHAC also made significant contributions to address health and social inequities in Canada through healthy eating programs, family violence prevention programs, and healthy living programs for Indigenous communities and other priority populations.

PHAC continued to prioritize the promotion of science, the engagement of subject matter experts, and the funding of research to address critical gaps in public health knowledge. Ensuring evidence-informed decision making and research-driven policies were core to the Agency's functions, PHAC adopted a One Health approach. The One Health approach positioned PHAC to enable Canada to lead a stronger and healthier future by preparing for future health-related events and emergencies, including the impacts of climate change on public health and antimicrobial resistance.

PHAC worked with federal, provincial, territorial, and Indigenous partners to co-develop a draft Pan-Canadian Health Data Strategy. This draft represents a set of commitments and actions to guide the safe use of health data and digital health tools for people in Canada.

The hard work and dedication of PHAC employees enabled the Agency to successfully deliver on these programs and priorities, but we recognize that the Agency's success is also thanks to the sustained commitment of countless front line public health care workers supporting the well-being of Canadians. PHAC's mission to promote and protect the health of Canadians is a team effort and improving the physical and mental well-being of Canadians is the goal we are all trying to achieve now and in the future.

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PHAC acknowledges that this report was written on the traditional, unceded territory of the Algonquin Anishinabeg Nation.

RESULTS AT A GLANCE

Throughout 2022–23, PHAC continued to support the Government of Canada's commitment to keep Canadians safe and healthy. While COVID-19 trends continued to drop during 2022–23, PHAC worked to ensure the evidence base was available to understand and appropriately respond to the public health impacts of the pandemic (e.g., post COVID-19 condition) while preparing for future health emergencies.

Guided by science and evidence, PHAC informed decision-making through the integration of public health data which included improving the Agency's ability to detect, understand, and act on public health risks. The Agency expanded the Canadian Chronic Disease Surveillance System, improved monitoring and data sharing on substance use and substance-related harms with provinces and territories, and enhanced COVID-19 monitoring to inform prevention and response efforts.

In collaboration with provinces and territories, PHAC launched several harm reduction and stigma reduction initiatives, while also increasing outreach and tailored public health education for key populations, including youth. In parallel, the Agency continued to support suicide prevention efforts which included implementing the new three-digit 9-8-8 number for mental health and suicide prevention in Canada, a three-digit number for people in Canada to call or text when in need of support for suicide prevention and emotional distress, building upon the existing Talk Suicide Canada service. The impact of COVID-19 on the mental health of people in Canada, including Posttraumatic Stress Disorder (PTSD), was also addressed through many investments.

To advance the development of a National Autism Strategy, PHAC organized the first federal national autism conference to bring together the views of people living with autism, advocates, Indigenous partners, families and caregivers, and provinces and territories.

In support of the Indigenous Early Learning and Child Care system, PHAC continued to invest in the Aboriginal Head Start in Urban and Northern Communities (AHSUNC) Program. In 2022–23, 4,248 Indigenous children and their families participated in activities at AHSUNC sites, and 100% of children enrolled experienced developmental benefits in a context that celebrates Indigenous cultures and language.

PHAC continued to contribute to Canada's national dementia strategy, in support of efforts to prevent dementia and improve the quality of life for those impacted by dementia. This included launching a national public education campaign to raise awareness and reduce the stigma associated with dementia.

In 2022–23, the Chief Public Health Officer's Annual Report for 2022 focused on climate change as the largest health threat facing people in Canada and around the world and demonstrated that public health is well-positioned to be a key collaborator, convenor, and leader on climate action. PHAC has and continues to support efforts to prepare for health risks associated with climate driven infectious diseases.

PHAC took concrete actions in 2022–23 to improve the Global Public Health Intelligence Network (GPHIN), including establishing new mechanisms to share GPHIN signals effectively with other Agency monitoring programs and with the Centre for Integrated Risk Assessment (CIRA) to ensure appropriate follow-through. Additionally, the CIRA has further enhanced PHAC's risk assessment capabilities by providing a process, methods and governance for infectious disease rapid risk assessments (RRAs).

Finally, in 2022–23, PHAC continued expanding efforts to monitor the trends and impacts of antimicrobial resistance in health institutions, communities, and the environment. Working with domestic partners, PHAC built on lessons learned to address the threat of antimicrobial resistance and contribute Canadian expertise to develop and strengthen international collaboration. This helped advance a One Health approach to increase access to new and existing antimicrobials, increase knowledge on the appropriate use of antimicrobials, and address the impacts on populations most at risk.

For more information on PHAC's plans, priorities and results achieved, see the "**Results: what we achieved**" section of this report.

PHAC'S ADAPTIVE RESPONSE TO COVID-19

A robust and adaptive approach guided the evolving nature of PHAC's response to COVID-19 while building a resilient, adaptable, and diverse public health system. Working with partners and stakeholders, PHAC rapidly scaled up existing operations and entered into new and expanded responsibilities to support Canada's response. This included travel and border measures, vaccine procurement, wastewater surveillance, and broader emergency management functions. In partnership with provinces and territories, PHAC led the coordination of federal efforts and inter-sectoral/Federal Provincial and Territorial (FPT) collaboration in establishing expert advisory bodies to improve information management and technology for monitoring. The Agency provided leadership and guidance in pandemic response efforts and other public health initiatives with partners at all levels of government and other sectors.

PHAC continued to work with provinces, territories, and other partners to secure and allocate a sufficient supply of vaccines, with a focus on boosters and pediatric doses. Launching the largest vaccination campaign in Canadian history, PHAC attributed success to its partnership with the Canadian Armed Forces in deploying vaccines across the country, as well as taking a proactive procurement approach focused on building a diverse vaccine portfolio. PHAC also took a federal leadership role in distributing personal protective equipment and rapid tests, working with scientific and medical experts to fund new research, and communicating with people in Canada on public health measures. As COVID-19 continued to spread at different levels in communities, PHAC released several awareness resources to reduce the spread. Also, in anticipation of a prolonged period of increased demand on the health care system, PHAC provided planning guidance for health care delivery during the COVID-19 pandemic.

PHAC supported the COVID-19 Immunity Task Force (CITF) in expanding monitoring of the virus and its variants. This included funding and harmonizing knowledge on SARS-CoV-2 immunity for federal, provincial, and territorial decision-makers to protect people in Canada while minimizing the impact of the COVID-19 pandemic. Guided by the latest scientific evidence to promote and protect the health and safety of Canadians, PHAC partnered with Statistics Canada and the CITF to launch a population-based survey (the Canadian COVID-19 Antibody and Health Survey, Cycle 2) to estimate the prevalence of post COVID-19 condition (PCC) in adults living in Canada. Survey results are anticipated to provide information on risk factors, symptoms, and impacts on daily functioning to better inform PHAC's adaptive response to COVID-19.

The health and well-being of PHAC's workforce remained a key priority throughout the pandemic response effort. A Decompression Program was implemented, as part of a suite of culture of care services, to support the mental health and well-being of employees to recover from prolonged operational stress at the forefront of the pandemic response.

COVID-19 underscored the health, social, and economic impacts of a global pandemic and the challenge of a complex, multi-jurisdictional response. Drawing on lessons learned and audit recommendations, PHAC is committed to addressing long-standing weaknesses and gaps in Canada's public health systems, emergency management and response through:

- Governance and collaboration: Clear roles, responsibilities, and accountabilities are needed during public health emergencies.
- Monitoring, data sharing, and interoperability: Data infrastructure and protocols are needed to support decision-making.
- Science and technology: Investment(s) needed in technologies, skills, and science infrastructure to support decision-making.
- Health equity: Future preparedness, response, and recovery must focus on reaching vulnerable populations.
- Surge capacity and the public health workforce: Human and physical (e.g., vaccines) resources are critical to scale up and sustain response.
- Risk communication, engagement, and public trust: Transparent, real-time communications and targeted engagement are critical to response.

COVID-19 reminded Canada of the important role that public health institutions play in promoting and protecting the public health of people in Canada. Through Budget 2023, the Government of Canada reaffirmed its commitment to PHAC renewal which aims to support the Agency in laying the groundwork to establish an agile, resilient, and adaptive public health agency with an enhanced ability to continue delivering on health protection and promotion results for people in Canada.

RESULTS: WHAT WE ACHIEVED

CORE RESPONSIBILITIES

1. HEALTH PROMOTION AND CHRONIC DISEASE PREVENTION

DESCRIPTION

Promote the health and well-being of Canadians of all ages by conducting surveillance and public health research and supporting community-based projects which address the root causes of health inequities and the common risk and protective factors that are important to promoting better health and preventing chronic disease.

Result 1.1: Canadians have improved physical and mental health

Identification, prevention, and management of post COVID-19 condition

PHAC continued to advance the scientific evidence base on post COVID-19 condition (PCC), including monitoring domestic and global evidence to better understand the health and socioeconomic impacts PCC can have on those who experience it. Two PCC evidence syntheses products were developed and published with funding from PHAC in 2022–23, and experts have been engaged to inform the development of PCC guidance to offer appropriate treatments and support to Canadians living with PCC. In conjunction with the synthesis work, PHAC updated the systematic review of global studies on the prevalence of PCC symptoms[i] as well as the proportion of people reporting difficulties in the ability to carry out usual activities, including the return to work. Additionally, PHAC funded the development of biweekly and monthly evidence reviews to ensure that PHAC's response and decision making on PCC was guided by the latest evidence.

PHAC developed and launched the **Canadian COVID-19 Antibody and Health Survey (CCAHS) – Cycle 2**[ii] in collaboration with Statistics Canada to determine the prevalence of PCC for the first time in Canada, including reported symptoms, risk factors and impacts on daily living. Two publications were released in 2022–23: a data blog in October 2022, **COVID-19 longer-term symptoms among Canadian adults – Fall 2022 Report**[iii] and a factsheet in March 2023, **COVID-19 longer-term symptoms among Canadian adults - Spring 2023 Report**.[iv]

DID YOU KNOW?

Provisional survey results revealed that 17.2% of adults experienced longer-term symptoms after having had COVID-19 (confirmed or suspected), and that certain groups were more likely to report longer-term symptoms, such as 22.0% of females compared to 12.5% of males. For more statistics, see **COVID-19 longer-term symptoms among Canadian adults - Highlights**.[v]

Promoting health equity and addressing the social and structural determinants of health

PHAC's Intersectoral Action Fund (ISAF) continued its efforts to strengthen capacity within communities to work across sectors and address the many social, economic, and environmental factors, such as education, employment, and housing, which have significant impacts on equity-deserving populations. Examples of ISAF-supported projects that applied an intersectional lens and actioned the social determinants of health in 2022–23 include the following:

- A project led by the Toronto and Region Conservation Authority in the Greater Toronto Area, Ontario to help increase equitable access to healthy built and natural environments, food security, healthy behaviours, social inclusion and skills training in two low-income communities. The project supported inclusive and meaningful engagement work with diverse community partners and residents and helped design projects and programs that support capacity building for local leadership.
- The Saskatoon Poverty Reduction Partnership (via the Saskatoon Food Bank and Learning Centre) aimed to address how poverty and racism are interconnected and ultimately affect the health of equity-deserving communities in Saskatchewan. The Saskatoon Poverty Reduction Partnership engaged with community partners and representatives, including individuals with lived/living experience, about how systems are biased, drive cycles of inequity and discrimination, and purposefully exclude community members based on race, gender, culture, age, and language, among other socially determined circumstances. This created a space for people with different experiences and social identities to have an open dialogue about the biases that impact decision-making and informed discussions with policy makers.

ISAF also funded 13 additional ongoing projects in 2022–23 in seven provinces, which engaged Indigenous Peoples, racialized communities, 2SLGBTQIA+ populations, Official Language Minority communities, and other priority populations.

Promoting mental health, preventing mental illness, and addressing trauma and Posttraumatic Stress Disorder (PTSD)

Mental health continued to be a focus for PHAC. In 2022–23, the Agency supported 48 projects through the Supporting the Mental Health of Those Most Affected by COVID-19 Investment in delivering and evaluating mental health promotion and prevention interventions, thereby reaching key populations, including children and youth, older adults, First Nations, Inuit and Métis Peoples, Black and other marginalized populations disproportionately impacted by the

COVID-19 pandemic. These projects reached over 190,000 individuals at over 350 sites through capacity building and knowledge exchange activities. In addition, PHAC also supported 13 projects through the **Addressing Posttraumatic Stress Disorder (PTSD) and Trauma in Those Most Affected by COVID-19 Investment**,[vi] implementing and testing promising approaches and adaptations for those at risk of experiencing PTSD and trauma which reached over 80,000 teachers, long-term care workers, paramedics, firefighters, nurses, physicians and public safety personnel among others at over 150 sites across the country. In other funded projects from the **Mental Health Promotion Innovation Fund**,[vii] PHAC supported 15 projects and a **Knowledge Development and Exchange Hub**[viii] which reached over 100,000 individuals through the delivery of innovative, community-based programs to promote the mental health of infants, children and youth, young adults, and their caregivers.

To support the evidence base for mental health, PHAC continued to support improved tracking of the rate of PTSD and its associated economic and social costs. This work, in support of the *Federal Framework on Post-traumatic Stress Disorder Act*[ix] with Statistics Canada, includes reporting on findings from **Cycle 2 of the Survey on COVID-19 and Mental Health**.[x] This included the release of a **data blog and infographic on PTSD**,[xi] as well as a **map of Canadian mental health during the COVID-19 pandemic**,[xii] which includes prevalence of PTSD. Through the Federal Interdepartmental Committee on Mental Health, co-led by PHAC and Health Canada, the Agency continued in 2022–23 to engage other government departments to share updates across departments on current and upcoming efforts related to mental health, including PTSD.

DID YOU KNOW?

63% of Canadians have experienced at least one traumatic event in their lifetime.

In support of the promotion of health equity, PHAC collaborated with community-based organizations, researchers, and Black communities to generate new evidence, build capacity, and implement culturally focused programs and interventions that address mental health and its determinants for Black Canadians. PHAC's **Mental Health of Black Canadians Fund**[xiii] invested in 13 projects in equity-deserving communities across Canada such as accredited training by the University of Ottawa in anti-racist care and culturally adapted practices for more than 1,600 mental health professionals, and a six-week after school basketball program implemented by **Aspire for Higher Elite Basketball**,[xiv] educating Black youth about mental health. Nine projects focused on Black mental health were supported through the Supporting the Mental Health of Those Most Affected by COVID-19 investment.

Advancing suicide prevention efforts and implementation of a three-digit number

PHAC made significant progress in advancing suicide prevention in 2022–23. In January 2023, PHAC released the **Federal Framework for Suicide Prevention 2022 Progress Report**[xv] which provides an overview of suicide prevention and related activities supported across the Government of Canada between 2020 and 2022, including key federal investments and initiatives helping to address the gaps in suicide prevention supports across the country. With the Centre for Addiction and Mental Health (CAMH), PHAC worked on the implementation of a pan-Canadian suicide prevention service called **Talk Suicide Canada**,[xvi] which provides suicide prevention crisis support in English and French over the phone to anyone in Canada, 24 hours a day, seven days a week at 1-833-456-4566 or by text at 45645 (4 p.m. - 12 a.m. EST). Building on this, PHAC and CAMH continued to work together to make progress towards the development of 9-8-8, a three-digit number for Canadians to call or text when in need of suicide prevention and emotional distress support, which will be launched on

November 30, 2023. Activities included engaging with provinces and territories and key organizations to build capacity and closely following the experience of the United States, who launched their 9-8-8 service on July 16, 2022. Finally, PHAC continued to support distress centres as they experience increased demand following the pandemic, including through investments in CAMH, Kids Help Phone,[xvii] which provides young people with mental health crisis support, and funding for 14 distress centres across Canada.

Accelerating the development of a National Autism Strategy

In 2022–23, PHAC continued work towards the development of a National Autism Strategy[xviii] by addressing key knowledge gaps in the understanding of the number and characteristics of people diagnosed with autism spectrum disorder, both across regions and over time and through investments in key programs with community organizations. Collaborations include: the Autism and/or Intellectual Disability Knowledge Exchange Network (AIDE Canada)[xix] project with the Pacific Autism Family Network[xx] which provides individuals living with autism, their families and caregivers access to resources and services online and through six hub locations across Canada; a project with the Canadian Academy of Health Sciences (CAHS)[xxi] to undertake an assessment on autism; a needs assessment project with the Autism Alliance of Canada[xxii] on adults living with autism; and innovative program models through the Autism Spectrum Disorder Strategic Fund[xxiii] by funding projects that focused on transition from youth to adulthood and projects that addressed challenges and emerging needs resulting from the COVID-19 pandemic.

Highlights of other work include expanding the Canadian Chronic Disease Surveillance System (CCDSS),[xxiv] and investing in a second cycle of the Canadian Health Survey on Children and Youth (CHSCY)[xxv] to continue reporting on prevalence, health status and other indicators in children and youth living with autism, examine the impacts of COVID-19 pandemic response on health and functioning of children and youth living with autism (in collaboration with the Offord Centre of McMaster University)[xxvi] and report on the pathway to autism diagnosis in children and youth. As part of the survey, it also developed a targeted national online survey (the 2023 Pandemic Canadian Autism Needs Assessment)[xxvii] in collaboration with Autism Speaks Canada,[xxviii] McMaster Autism Research Team,[xxix] and the Autism Alliance of Canada, to collect information on the evolving indirect impacts and service/support experiences related to COVID-19 on individuals of all ages living with autism and their caregivers.

Finally, in 2022–23, PHAC organized the first federal national autism conference[xxx] to bring together the views of people living with autism, advocates, Indigenous partners, families and caregivers, and provinces and territories. The learnings from this conference will help set priorities and support the development of a National Autism Strategy.

Facilitating supportive communities and responsive care for older adults

To support the health and well-being of older adults, PHAC continued advancing the Age-Friendly Communities[xxxi] model across Canada in collaboration with key partners including collaborating with provinces and territories to recognize communities who are on the way to becoming age-friendly according to the Pan-Canadian Age-Friendly Recognition Framework, funded the World Health Organization's (WHO) Guidelines to Develop and Sustain National Age-Friendly Programs[xxxii] and participated in the WHO Global Network of Age Friendly Communities.[xxxiii] The UN Decade of Healthy Ageing 2023 Process Evaluation Survey was also completed in 2022–23, providing the WHO and the Pan American Health Organization (PAHO) with input on the policies, strategies, regulations, guidelines, and data efforts in Canada that support the Decade's action areas. PHAC also

continued to fund and monitor the progress and performance of the New Brunswick Healthy Seniors Pilot Project[xxxiv] research initiative which examines how to better support older adults in their homes, communities, and care facilities.

Contributing to the implementation of Canada's National Dementia Strategy

With a growing and aging population, the number of Canadians living with dementia is expected to increase in future decades. PHAC continued to implement key elements of Canada's national dementia strategy,[xxxv] which strives for a future in which all people living with dementia, as well as caregivers, are valued and supported, quality of life is optimized, and dementia is prevented, well understood, and effectively treated. The Enhanced Dementia Surveillance Initiative[xxxvi] funded 15 projects to address key data gaps and support the implementation of the strategy.

Throughout 2022–23, PHAC continued to fund projects through the Dementia Strategic Fund (DSF)[xxxvii] including nine new targeted awareness raising projects across Canada focusing on communities becoming more dementia-inclusive, reducing stigma, and reducing risk. In addition, PHAC invested in 11 new projects focused on improving access to high-quality dementia guidance, including guidelines and best practices. The Dementia Community Investment (DCI)[xxxviii] funded three new community-based projects focussed on preventing or delaying the onset and progression of dementia. The Centre for Aging and Brain Health Innovation (CABHI)[xxxix] also received an additional $30 million in federal funding (2022–2025) through PHAC to support promising innovations across the country to support healthy aging and improve brain health. Since its establishment in 2015, with funding from PHAC, CABHI has supported more than 345 projects, including over 275 unique innovative solutions that respond to the needs of older adults.

PHAC's national public education and awareness campaign focused on stigma reduction and raising awareness among Canadians about dementia risk factors and promote healthy behaviors to help reduce the risk. In addition to sharing data points linked to the strategy's objectives, the 2022 Annual Report to Parliament[xl] highlighted the results of public opinion research about quality of life when living with dementia, dementia prevention, dementia guidance and Indigenous Peoples, and the perspectives and experiences of health care providers who work with people living with dementia.

Result 1.2: Canadians have improved health behaviours

Improving understanding of substance use and preventing substance-related harms

Through various collaborative efforts, PHAC continued to apply a public health lens to address substance-related harms through the promotion of equity, trauma and violence reduction, and diversity-informed approaches. In 2022–23, PHAC continued to work with provinces and territories to monitor opioid- and stimulant-related harms in Canada to provide a picture of the public health impact of the opioid toxicity crisis across the country. Specifically, PHAC continued to deploy Public Health Officers in provinces and territories to support data collection and reporting to PHAC and published national quarterly data on opioid- and stimulant-related harms, and continued to work with the provinces and territories to explore enhancing monitoring data. In addition, PHAC produced two updates to their simulation model of opioid related deaths, which was an important tool to inform public health responses. The model has played a vital role in further advancing the understanding of how the opioid overdose crisis may have evolved during the COVID-19 pandemic.

PHAC also worked closely with provinces and territories to advance monitoring, data analyses and knowledge translation. In partnership with provincial and territorial Chief Coroners and Chief Medical Examiners, and Statistics Canada, PHAC began the development of common approaches across Canada to death investigation to expand

the pan-Canadian monitoring of substance-related toxicity deaths to better understand the socio-demographic characteristics of those who have died from drug- and alcohol-related acute toxicity, as well as the risk factors, substances involved, and circumstances surrounding the deaths.

PHAC continued work to advance knowledge and implementation of prevention approaches to prevent substance use harms related to the use of cannabis, opioids, and vaping products among youth. This included a partnership with a researcher working with **Planet Youth Lanark County**,[xli] the first community in Canada to implement the **Icelandic Prevention model**,[xlii] which centres on local evidence-informed community-based actions that address youth risk and protective factors, to develop **An Evaluation Guide To Support Community-Based Interventions To Prevent Substance-Related Harms In Youth**.[xliii] The guide presents resources for community leaders on how to use evaluation methods to measure progress of community-based programs designed to prevent substance-related harms among youth. In addition, PHAC released resources, such as the continued dissemination of the **Blueprint for Action: Preventing substance related harms among youth through a Comprehensive School Health approach**[xliv] and a partnership with the **Canadian Coalition for Seniors' Mental Health**[xlv] to produce **an online resource and printable poster**[xlvi] to help support older adults in making informed decisions about their substance use.

PHAC continues to work with Health Canada to advance **Canada's Tobacco Strategy**,[xlvii] which aims to achieve less than five percent tobacco use by Canadians by 2035. PHAC's **Healthy Canadians and Communities Fund (HCCF)**[xlviii] supports tobacco cessation and prevention projects focused on priority populations that have higher rates of tobacco use and which address behavioural risk factors associated with chronic disease. Examples of results achieved through PHAC's funding include the following:

Build Smoke-Free,[xlix] led by the **Canadian Cancer Society**,[l] addressed tobacco use in the construction industry. The risk of using tobacco is highest amongst persons working in the construction industry, and may be influenced by factors and experiences that disproportionately impacts this priority population. Of the over 1,100 tobacco users who participated in the project's "attempt to quit" efforts:

- 57% of respondents reported decreasing their level of nicotine dependence from intake to the 6-month follow-up;
- 65% of respondents agreed that the program created a work environment that helped them quit smoking or cut back on smoking cigarettes;
- 84% of respondents agreed that the program increased their knowledge about ways to quit smoking; and
- 80% of respondents agreed that the program increased their knowledge about the benefits of quitting.

Most importantly, program participants were six times more likely to be smoke-free at the program's six months mark, compared to those quitting on their own.

The **Youth4Change**[li] project, led by **Lung Saskatchewan Inc.**,[lii] engaged First Nations youth and young adults both on and off-reserve in Saskatchewan in designing an approach to address the use of commercial tobacco by focusing on education and prevention, support to quit, and public advocacy. The project was piloted in three communities, with 88 direct participants and over 325 other participants reached through education activities.

Fostering positive early development and stronger beginnings for all children

PHAC continued to fund approximately 240 projects serving approximately 45,000 pregnant people, parents, and caregivers annually across Canada through the **Canada**

Prenatal Nutrition Program (CPNP)[liii] to create partnerships within communities and strengthen community capacity to improve the health of pregnant people, new parents, and babies, who may face challenges that disproportionately impact their health.

To ensure that parents receive the information and support they need to give their children the best start in life, PHAC disseminated several resources that promote and support healthy pregnancy, and infant and child health. Examples include updated guidance in Your Guide to a Healthy Pregnancy[liv] on the significance of fetal movement in the third trimester for stillbirth prevention, an update to the Family-Centred Maternity and Newborn Care National Guidelines,[lv] with the release of the final chapters (Chapter 8: Organization of services and the Epilogue), and Canada's Breastfeeding Progress Report 2022[lvi] and accompanying breastfeeding dashboard,[lvii] which presents data about breastfeeding in Canada.

In continuing to implement the Indigenous Early Learning and Child Care Framework,[lviii] PHAC collaborated with the National Aboriginal Head Start Council (NAHSC), the Indigenous-led governance body for the Aboriginal Head Start in Urban and Northern Communities (AHSUNC)[lix] program to continue to ensure an Indigenous-led approach to implementing new investments announced in Budget 2021, which supports the Truth and Reconciliation Call to Action 12. For example, 76% of the capital funding disbursed in 2022–23 was dedicated to addressing acute health and safety needs at AHSUNC sites.

To promote the health and development of children from birth to age 6 and their families living in official language minority communities (OLMCs), PHAC's Healthy Early Years Program,[lx] funded 59 projects, reaching over 16,000 participants living in OLMCs. PHAC's Community Action Program for Children (CAPC)[lxi] continued to fund projects serving children and parents/caregivers living in vulnerable situations across Canada. The projects of both programs provide comprehensive, culturally and linguistically appropriate programs, to promote knowledge and skills, positive health behaviours and overall health and well-being of program participants. In a recent survey completed by program participants, 77% reported gaining knowledge and skills as a result of the program, 88% reported improved health behaviours and 73% reported that their health and well-being had improved.

Through the School Health Grant for Youth[lxii] program, which encouraged healthy living in schools through youth-driven and youth-inspired projects, PHAC awarded grant funding to 14 youth recipients. Youth-led projects focused on the following four priority areas: substance use and related harms, positive mental health and well-being, healthy eating and nutrition, and physical activity.

Preventing and addressing family and gender-based violence

In 2022–23, PHAC continued to support the National Action Plan to End Gender-Based Violence,[lxiii] as well as projects identifying effective ways to prevent and address family and gender-based violence, improve health outcomes for survivors, and equip health and allied professionals to recognize and respond safely and effectively to these types of violence. In addition, PHAC contributed to 28 new projects funded through the Preventing and Addressing Family Violence - the Health Perspective[lxiv] program delivering and evaluating health promotion programs and interventions that prevent family violence and improve health outcomes for survivors of violence. This new suite of projects included a stronger focus on prevention and more targeted engagement with populations that are disproportionately impacted by family violence, and focused on the prevention of child maltreatment, intimate partner violence, and elder abuse. There are 32 continuing projects through the Preventing Gender-Based Violence: The Health Perspective[lxv] program, which includes projects to prevent youth dating violence

and child maltreatment, and to build the capacity of professionals to respond to gender-based violence. Four communities of practice funded by the Agency supported **family violence projects**,[lxvi] **teen/youth dating violence projects**,[lxvii] 2SLGBTQIA+ youth projects and family law practitioners through networking, capacity building, and knowledge mobilization.

Creating healthy built environments

The Agency's work towards creating healthy environments in 2022–23 included funding a contract that provided new cycling data and insight into validating PHAC's methods for translating city provided data into the **Canadian Bikeway Comfort and Safety (Can-BICS) Classification System**.[lxviii] Supporting the environmental sustainability benefits of cycling through the HCCF, PHAC invested in the **National Newcomer Bike Mentor Program**,[lxix] led by the **Immigrant Services Society of British Columbia**,[lxx] which matches recent immigrants and refugees with local cycling experts to make cycling a regular and significant transportation choice during and after their settlement processes. Project participants indicated that all participants increased their rates of physical activity through cycling, by taking up the activity and significantly increasing in the total number of physical activity minutes through cycling.

DID YOU KNOW?

The **University of Alberta Housing for Health initiative**,[lxxi] funded through the HCCF, helped to improve active living, healthy eating, and social connections of senior community residents by improving housing developments and the surrounding neighborhood in the Edmonton Metropolitan Region. The addition of windowed stairwells, painted walls, raised garden beds, a community garden, and a walking map for neighbourhood residents are a few changes in the built environment which supported increased physical activity, access to healthy foods and encouraged greater sense of community, all factors that contribute to healthier living and can support chronic disease prevention.

In addition to cycling, PHAC continued its collaboration with the Canadian Institutes of Health Research on the Healthy Cities Research Initiative and contributed to two healthy aging environment initiatives. First, the Women's College Hospital's **Reimagining Naturally Occurring Retirement Communities (NORCs) for 21st Century Cities: What works best to support older adults to age in place?**[lxxii] project, which works to facilitate healthy aging for individuals living in lower socio-economic NORCs. Secondly, the University of British Columbia's Healthy Cities: Implementation Science Team in Healthy Aging project, which engages adults in a health-promoting intervention called **Choose to Move**[lxxiii] to enhance older adults' physical activity, mobility, and social health.

Result 1.3: Chronic diseases are prevented

Supporting projects that prevent chronic diseases such as diabetes, cardiovascular disease, and cancer

PHAC seeks to support people across Canada in adopting and strengthening healthy living behaviours such as physical activity and healthy eating to help prevent chronic diseases such as diabetes, cardiovascular diseases, and cancer. In 2022–23, PHAC completed a multi-phased, multi-platform engagement with stakeholders, including provinces and territories, Indigenous Peoples and persons with lived experience, to help inform the development of the Framework for Diabetes in Canada[lxxiv] to provide a common policy direction to address diabetes in Canada and set the foundation for participation by all sectors of society. In addition to policy direction, PHAC's HCCF continues to support community-based initiatives to improve healthy behaviours and address health inequalities among priority populations at greater risk of developing chronic disease.

Through the HCCF, in 2022–23, PHAC continued to fund 50 projects that aimed to prevent chronic disease. One example includes the development, publication, and promotion of the Canadian 24-Hour Movement Guidelines for Adults (24HMG),[lxxv] which provide evidence-based recommendations for how much physical activity, sedentary behaviour, and sleep adults require over a 24-hour period to obtain health benefits. The guidelines were made available in multiple languages and were the world's first sedentary threshold recommendations for adults. The guidelines are already having an impact by helping people understand the levels of physical activity needed to support a healthy lifestyle, with the guidelines and accompanying materials having reached over 12 million people living in Canada. A survey of 1,000 Canadians showed that 30% of respondents were familiar with 24HMG following the official launch of the guidelines.

The results of a six-week, app-based intervention with 68 post-secondary students, designed to increase knowledge and behaviours in line with the 24HMG, found that approximately 25% of students increased their physical activity levels, based on Fitbit data.

Farm to School: Canada Digs In!,[lxxvi] coordinated by the Social Planning and Research Council of British Columbia, focused on growing the Farm to School Movement in Canada. By its end date of September 2022, it had reached over 85,000 children and youth in nine provinces and one territory. The initiative helped children and youth gain food literacy skills, interest in local nutritious foods, and an understanding of the importance of fruits and vegetables in one's daily life.

DID YOU KNOW?

Between 2018 and 2023, ParticipACTION's[lxxvii] Let's Get Moving initiative has helped more Canadians be physically active and sustain those levels of physical activity:

- 64% of people who were aware of the Let's Get Moving education campaign reported taking immediate action and made physical activity a bigger priority, tracked physical activity, looked for information on physical activity, visited the campaign website to learn more, and shared information with others.
- Over 1 million Canadians from across the country participated in ParticipACTION's community challenges.

Sex and Gender-based Analysis Plus

PHAC continued to prioritize health equity, diversity, and inclusion considerations through the application of Sex and Gender-based Analysis (SGBA) Plus, a Government of Canada priority. SGBA Plus is an analytical approach that

operationalizes intersectionality and is used to assess how social determinants of health interact and intersect with each other and broader systems of power and discrimination. An SGBA Plus approach supports the explicit and systematic integration of equity considerations into research, policy development, programs, and monitoring. The "Plus" acknowledges that this analysis goes beyond sex and gender differences to consider multiple, intersecting determinants of health and how they interact with broader systems and structures of power and discrimination to shape a population's experience and lived reality.

The Agency persisted to advance efforts to include an SGBA Plus lens in programs, projects, and initiatives under Core Responsibility 1, with a few examples highlighted as follows:

Aging, Older Adults, and Dementia initiatives
SGBA Plus has been a mandatory component for every solicitation of the New Brunswick Healthy Seniors Pilot Project, understanding the gendered impacts of aging is a key goal. All funded projects are required to: collect information on diversity, gender, rurality, ethnicity, and language; as well as lessons learned related to SGBA Plus such as adjustments in recruitment processes and program design to ensure the participation of diverse populations. Further, projects receiving funding through the DSF and the DCI report on sex, gender, and other socially determined factors where applicable in their annual reporting to PHAC.

In 2022–23, PHAC invested in public opinion research to gather information on Indigenous perspectives and experience with dementia guidance. The results of this research will inform PHAC's work going forward and will support initiatives that are culturally competent in accordance with the Truth and Reconciliation Call for Justice 3.2. An additional public opinion research project focused on official language minority communities to obtain a deeper understanding of their knowledge, experiences, and attitudes related to dementia prevention and dementia-inclusiveness.

Family and Gender Based Violence Prevention
In line with SGBA Plus best practices, Family and Gender Based Violence Prevention (FGBV) solicitations are based on scoping research that include qualitative and quantitative data and information, as well as meaningful engagement with diverse stakeholders, and an intersectional gender analysis is built in. Based on this research, FGBV calls for proposals give special consideration people living in vulnerable situations and/or at greater risk of experiencing violence, such as: Indigenous women and youth, 2SLGBTQIA+, racialized, and immigrant communities.

Collection and Analysis of Disaggregated Data to Inform Policy and Program Design
Recognizing the existence of inequities in health, based on sex, gender, age, race, disability, and more, PHAC conducts routine public health monitoring and data collection to identify inequalities and inequities to inform policy. PHAC integrated SGBA Plus in health monitoring and research with the publication of the Gender identity and sexual attraction among Canadian youth: findings from the 2019 Canadian Health Survey on Children and Youth[lxxviii] paper. As a result of this work, PHAC and other organizations can now report on gender identity and sexual attraction using national survey data. This study also laid the groundwork for an upcoming project looking at the influence of gender identity on physical activity, active transportation, and sports participation among Canadian youth. PHAC applies SGBA Plus in the design of its initiatives to address the diverse needs of people in Canada to ensure a positive impact on their health status and outcomes.

Healthy Canadians and Communities Fund
The HCCF Implement Phase[lxxix] was conceived, developed, and implemented in November 2022 using an SGBA Plus lens, with a focus on priority populations identified through multisectoral stakeholder engagement and research in health inequalities and chronic disease prevention. This initiative continued to strengthen its approach to SGBA Plus by conducting an

environmental scan and key informant interviews with funding recipients to identify barriers to funded projects when collecting disaggregated data and help inform the development of future tools and promising approaches that support disaggregated data collection.

United Nations' (UN) 2030 Agenda for Sustainable Development and the UN Sustainable Development Goals

The HCCF continued to contribute towards the Government of Canada's progress in achieving the UN sustainable development goals (specifically SDG 3: "Good health and well-being") by supporting projects that improve health behaviours, such as physical activity, healthy eating, and decreased tobacco use, and that support chronic disease prevention. These healthy living behaviours directly contribute to people in Canada leading healthy lives and encourage overall well-being across the lifespan.

DID YOU KNOW?

The Caring for the Land, Caring for Each Other[lxxx] project funded by the HCCF and led by the Gathering Voices Society,[lxxxi] won a Land Award[lxxxii] in 2022 for land use and conservation. The project aims to expand Indigenous fire practices across British Columbia, empower communities to implement their stewardship approaches, and reduce wildfire risk. Fire management and stewardship programs facilitate increased physical activity, improved mental health and well-being, and enhanced accessibility to traditional foods.

Innovation

In 2022–23, PHAC launched the Type 2 Diabetes Prevention Challenge[lxxxiii] in partnership with Impact Canada.[lxxxiv] This challenge aims to attract innovators to develop and implement community co-designed approaches that address the barriers and determinants of health most relevant to populations at a greater risk of Type 2 diabetes. This challenge seeks innovative approaches that can support Type 2 diabetes prevention by addressing the social, economic, and geographical determinants of health by encouraging innovative solutions to support early intervention before entry into the medical system is required.

In partnership with Innovation, Science and Economic Development Canada's (ISED) Innovative Solutions Canada, PHAC launched the Detecting concussions using objective indicators challenge.[lxxxv] This challenge seeks a technology, procedure or technique that provides the means to detect concussions based on the objective measure of clinical indicators, and provides outcome-based funding to innovative Canadian businesses to support their cutting-edge ideas related to concussion detection.

Results achieved

The following table shows, for Health Promotion and Chronic Disease Prevention, the results achieved, the performance indicators, the targets, and the target dates for 2022–23, and the actual results for the three most recent fiscal years for which actual results are available. Please note that for the results below, the data collection periods vary, and are not collected annually. Specific details on collection periods are noted in the footnotes following the table. PHAC continues to explore indicator improvements where possible.

Departmental result	Performance indicators	Target	Date to achieve target	2020–21 actual result	2021–22 actual result	2022–23 actual result
Canadians have improved physical and mental health	% of low-income children in very good or excellent health	At least 80%	Mar. 31, 2025	84.1% (CHSCY 2019)[1]	84.1% (CHSCY 2019)[2]	84.1% (CHSCY 2019)[3]
	% of population who have high psychological well-being[4]	At least 75%	Mar. 31, 2025	75% (CCHS 2019)[5]	75% (CCHS 2019)[6]	75% (CCHS 2019)[7]
Canadians have improved health behaviours	% increase in average minutes per day of physical activity among adults	At least 20% above baseline (with a baseline of 25 min/day, a 20% increase represents 30 min/day)	Mar. 31, 2025	+10% (27.4 min/day) (CHMS 2018–19)[8]	+10% (27.4 min/day) (CHMS 2018–19)[9]	+10% (27.4 min/day) (CHMS 2018–19)[10]

1 There are no 2020–21 results available from the CHSCY. The results from 2019 are the most recent and will be used until new data is available. Expected date of data availability is 2024–25.

2 There are no 2021–22 results available from the CHSCY. The results from 2019 are the most recent and will be used until new data is available. Expected date of data availability is 2024–25.

3 There are no 2022–23 results available from the CHSCY. The results from 2019 are the most recent and will be used until new data is available. Expected date of data availability is 2024–25.

4 High psychological well-being is an indicator of positive mental health and it measures the number of participants surveyed with a mean score of 20 or higher on a scale of 0–28, based on the six psychological well-being questions contained in the Canadian Community Health Survey (CCHS) Mental Health Continuum Short-Form (MHC-SF). This is for adults 18+ only—improved psychological well-being may be measured differently for youth and children.

5 There are no 2020–21 results available from the CCHS. The results from 2019 are the most recent and will be used until new data is available.

6 Data for 2021–22 is not available as the CCHS's current collection period runs from February 7, 2022, to December 31, 2022.

7 There are no 2022–23 results available from the CCHS. The results from 2019 are the most recent and will be used until new data is available.

8 Data for 2020–21 is not available as the CHMS Cycle 6 took place from 2018–19 and Cycle 7 is taking place from fall 2022 to fall 2024. The results from 2018–19 are the most recent and will be used until new data is available.

9 Data for 2021–22 is not available as the CHMS Cycle 6 took place from 2018–19 and Cycle 7 is taking place from fall 2022 to fall 2024. The results from 2018–19 are the most recent and will be used until new data is available.

10 Data for 2022–23 is not available as the CHMS Cycle 6 took place from 2018–19 and Cycle 7 is taking place from fall 2022 to fall 2024. The results from 2018–19 are the most recent and will be used until new data is available.

Departmental result	Performance indicators	Target	Date to achieve target	2020–21 actual result	2021–22 actual result	2022–23 actual result
Canadians have improved health behaviours	% increase in average minutes per day of physical activity among children and youth	At least 10% above baseline (with a baseline of 58 min/day, a 10% increase represents 64 min/day)	Mar. 31, 2025	+2% (59.2 min/day) (CHMS 2018–19) (baseline: 58 min/day, CHMS 2012–13)	+2% (59.2 min/day) (CHMS 2018–19)[11] (baseline: 58 min/day, CHMS 2012–13)	+2% (59.2 min/day) (CHMS 2018–19)[12] (baseline: 58 min/day,CHMS 2012–13)
Chronic diseases are prevented	% increase in years lived in good health by seniors	At least 4% (HALE at age 65 = 17.0 years. The baseline value for the % increase in years lived in good health by seniors is 14.9 years.)	Mar. 31, 2023	1% 15 years (Statistics Canada, 2010–2012 to 2015–2017)[13]	1% 15 years (Statistics Canada, 2010–2012 to 2015–2017)[14]	1% 15 years (Statistics Canada, 2010–2012 to 2015–2017)[15]
	Rate per 1000 of new diabetes cases among Canadians	At most 6.2 (cases per 1,000 Canadians age 1 and older)	Mar. 31, 2025	6.0 per 1,000 age 1 and older (CCDSS 2017–18)	6.0 per 1,000 age 1 and older (CCDSS 2017–18)[16]	6.2 per 1,000 age 1 and older (CCDSS 2019–20)
	% of adults who are obese[17]	At most 28%	Mar. 31, 2025	24.4% (CHMS 2018–19)[18]	24.4% (CHMS 2018–19)[19]	24.4% (CHMS 2018–19)[20]
	% of children and youth who are obese[21]	At most 13%	Mar. 31, 2025	10% (CHMS 2018–19)[22]	10% (CHMS 2018–19)[23]	10% (CHMS 2018–19)[24]

11 Data for 2021–22 is not available as the CHMS Cycle 6 took place from 2018–19 and Cycle 7 is taking place from fall 2022 to fall 2024. The results from 2018–19 are the most recent and will be used until new data is available.

12 Data for 2022–23 is not available as the CHMS Cycle 6 took place from 2018–19 and Cycle 7 is taking place from fall 2022 to fall 2024. The results from 2018–19 are the most recent and will be used until new data is available.

13 There are no 2020–21 results available from Statistics Canada. The results from 2015 to 2017 are the most recent and will be used until new data is available.

14 There are no 2021–22 results available from Statistics Canada. The results from 2015 to 2017 are the most recent and will be used until new data is available.

15 There are no 2022–23 results available from Statistics Canada. The results from 2015 to 2017 are the most recent and will be used until new data is available.

16 There are no 2021–22 results available from the CCDSS. The results from 2018 are the most recent and will be used until new data is available.

17 This indicator measures the number of adults aged 18 and older that are classified as obese according to Body Mass Index. For adults, obesity is defined as BMI>= 30.0 kg/m^2.

18 Data for 2020–21 is not available as the CHMS Cycle 6 took place from 2018–19 and Cycle 7 is taking place from fall 2022 to fall 2024. The results from 2018–19 are the most recent and will be used until new data is available.

19 Data for 2021–22 is not available as the CHMS Cycle 6 took place from 2018–19 and Cycle 7 is taking place from fall 2022 to fall 2024. The results from 2018–19 are the most recent and will be used until new data is available.

20 Data for 2022–23 is not available as the CHMS Cycle 6 took place from 2018–19 and Cycle 7 is taking place from fall 2022 to fall 2024. The results from 2018–19 are the most recent and will be used until new data is available.

21 This indicator measures the number of children and youth aged 5– 17 that are classified as obese according to Body Mass Index.

22 Data for 2020–21 is not available as the CHMS Cycle 6 took place from 2018–19 and Cycle 7 is taking place from fall 2022 to fall 2024. The results from 2018–19 are the most recent and will be used until new data is available.

23 Data for 2021–22 is not available as the CHMS Cycle 6 took place from 2018–19 and Cycle 7 is taking place from fall 2022 to fall 2024. The results from 2018–19 are the most recent and will be used until new data is available.

24 Data for 2022–23 is not available as the CHMS Cycle 6 took place from 2018–19 and Cycle 7 is taking place from fall 2022 to fall 2024. The results from 2018–19 are the most recent and will be used until new data is available.

Financial, human resources and performance information for PHAC's program inventory is available on GC InfoBase.[lxxxvi]

Budgetary financial resources (dollars)

The following table shows, for Health Promotion and Chronic Disease Prevention, budgetary spending for 2022–23, as well as actual spending for that year.

2022–23 Main Estimates	2022–23 planned spending	2022–23 total authorities available for use	2022–23 actual spending (authorities used)	2022–23 difference (actual spending minus planned spending)
404,242,333	404,242,333	439,526,985	406,844,196	2,601,863

Financial, human resources and performance information for PHAC's program inventory is available on GC InfoBase.[lxxxvii]

Human resources (full-time equivalents)

The following table shows, in full-time equivalents, the human resources the department needed to fulfill this core responsibility for 2022–23.

2022–23 planned full-time equivalents	2022–23 actual full-time equivalents	2022–23 difference (actual full-time equivalents minus planned full-time equivalents)
623	653	30

The number of actual full-time equivalents exceeds the planned number primarily due to the augmentation of personnel to provide assistance in program areas such as Preventing and addressing Family Violence: The Health Perspective, Innovative science in French, Supporting the Mental Health, and Addressing Post-traumatic Stress Disorder (PTSD) and Trauma in Those Most Affected by COVID-19.

Financial, human resources and performance information for PHAC's program inventory is available on GC InfoBase.[lxxxviii]

2. INFECTIOUS DISEASE PREVENTION AND CONTROL

DESCRIPTION

Protect Canadians from infectious diseases by predicting, detecting, assessing and responding to outbreaks and new threats, and contribute to the prevention, control and reduction of the spread of infectious diseases.

Result 2.1: Infectious diseases are prevented and controlled

Supporting the procurement of COVID-19 vaccines and therapeutics and facilitating distribution

In 2022–23, PHAC continued to support the procurement of COVID-19 vaccines and therapeutics for all Canadians in collaboration with Public Service Procurement Canada and ISED. As of July 14, 2022, Health Canada authorized the use of the **Moderna Spikevax COVID-19 vaccine in children 6 months to 5 years of age**.[lxxxix] This was the first COVID-19 vaccine authorized in Canada for use in this age group and marked a milestone in Canada's response to COVID-19. Approximately 1.7 million children became eligible for vaccination against COVID-19. As of September 1, 2022, Canada began providing access to new bivalent Omicron-containing mRNA COVID-19 boosters, to support jurisdictional fall booster campaigns. PHAC also continued to provide a supply of non-mRNA COVID-19 vaccines as an alternative for those who could not receive an mRNA vaccine. Vaccination continues to be one of the most effective ways to protect families, communities and individuals against COVID-19. Evidence indicates that the vaccines used in Canada are highly effective at preventing severe illness, hospitalization, and death from COVID-19. A summary of evidence and regulatory decisions can be found in the **COVID-19 vaccines and treatments portal**.[xc]

During 2022–23, PHAC worked to procure vaccines and therapeutics, and engage with its FPTI partners, helping to protect the health of people in Canada against severe illness, hospitalization, and death from COVID-19. This included individuals who are particularly at high risk of severe outcomes or immunocompromised due to disease or treatment, helping to reduce the strain on Canadian healthcare systems.

Some examples of actions taken by PHAC include:

- Procuring additional quantities of three COVID-19 therapeutics in Canada, making 80,833 to 111,250 more treatment courses available to all provinces and territories along with other federal departments involved in the delivery of healthcare services.
- Engaging provinces and territories and federal partners through a total of 38 FPTI Task Force meetings on drug shortages to share information regarding COVID-19 therapeutics, and seek feedback on supply, usage, and implementation to inform procurement needs and strategies.
- Holding 122 meetings with manufacturers and third-party logistics service providers regarding access to supply and logistics services to ensure that FPTIs had equitable access to safe and effective COVID-19 therapeutics.
- Coordinating 34 bilateral meetings with FPTIs to exchange information on therapeutic drug usage and implementation to help inform and support their decision-making, to ensure equitable access to supply through procurement and logistics support.
- Providing over 433 responses to inform policy recommendations and contribute to decision-making processes for the procurement of safe and effective COVID-19 therapeutics.

PHAC's actions comprised a critical component of the national pandemic emergency preparedness and response, by contributing to the implementation of **Canada's Biomanufacturing and Life Sciences Strategy**[xci] through ongoing monitoring and evaluation of the practical challenges and outcomes related to the implementation of COVID-19 therapeutics in Canada. As new evidence emerged, PHAC analyzed and synthesized scientific information on the effectiveness of promising and federally procured COVID-19 therapeutics to set the direction and support evidence-based decision-making including regarding Strategic Innovation Fund applicants, to effectively respond to public health needs.

PHAC reviewed scientific publications daily during this period to inform the COVID-19 therapeutics procurement decision-making process, providing weekly updates to stakeholders on the most recent evidence on COVID-19 therapeutics. During 2022–23, PHAC reviewed emerging evidence on promising COVID-19 therapeutics in the research and development pipeline to assess and identify the COVID-19 treatments most likely to be of interest/need to inform potential procurement decisions by Canada's health care systems.

Through FPTI collaboration, PHAC monitored the implementation and impact of COVID-19 treatments to identify best practices for their use across Canada. This work was also used to refine policies and programming for COVID-19 therapeutics and the publication of the **Nirmatrelvir/Ritonavir Implementation in Canada-Summary Evaluation Report: January to August 2022**[xcii] and evaluation of the characteristics and clinical outcomes of recipients of Nirmatrelvir/Ritonavir (PAXLOIDTM) in Canada, 2022 summary report. Additionally, PHAC led the Paxlovid Patient Outcome Evaluation Working Group and played a convening role in the **CanTreatCOVID**[xciii] adaptive platform trial of treatments for COVID-19 in community settings, funded through a partnership between Health Canada, CIHR and PHAC. The Agency also facilitated access to Paxlovid supply to various study sites via collaborative meetings with partners, including CANTreatCOVID representatives, and principal investigators of the CanTreat trial.

PHAC continued to support robust engagement with FPTI communities, organizations, and other partners while transitioning towards a long-term and sustainable approach to the ongoing management of COVID-19. This included:

- coordinating seven engagements with provinces and territories responsible for the COVID-19 vaccine rollout to share information and monitor various aspects of vaccine rollout;
- hosting a workshop in May 2022 to promote planning and preparedness in anticipation of fall 2022 vaccination campaigns;
- hosting a FPTI Summit (August 2022) to highlight and share best practices and lessons learned; and
- advancing Canada's goal of reducing transmission and infections, minimizing serious illness and death, including PCC.

This was done while minimizing societal disruption through the 7 Point-Action Plan immunization campaign by coordinating more than 10 engagements with provincial and territorial, Indigenous, and industry partners to coordinate and prepare for the fall/winter COVID-19 booster campaigns.

The co-circulation of influenza, COVID-19, and respiratory syncytial virus (RSV) had a significant impact on health care capacity in Canada during fall and winter. Recognizing that seasonal influenza posed a risk to Canadians, especially to those 65 years and older residing in long-term care (LTC) facilities, PHAC purchased 330,000 doses of Fluzone® High-Dose (HD) Quadrivalent influenza vaccine to help protect eligible LTC residents (in all provincial and territorial jurisdictions. PHAC also established a reserve of 25,000 doses of Fluzone® HD vaccine to supplement jurisdictional supply. All doses were allocated to jurisdictions for use in the 2022–23 influenza season.

DID YOU KNOW?

Fluzone® HD is a specialty vaccine for adults aged 65 years and older that contains four times the antigen of standard influenza vaccines. According to the National Advisory Committee on Immunization (NACI),[xciv] Fluzone® HD provides better protection to older adults than standard influenza vaccines.

In 2022–23, PHAC managed the importation, allocation, ordering, storage, and distribution to FPTI partners of COVID-19 vaccines including bivalent formulations. As of April 14, 2023, over 166 million doses were received in Canada, and nearly 120 million were distributed to FPTI partners. PHAC also developed and successfully launched the new VaccineConnect 2.0, which provides enhanced features related to inventory management and supported provinces and territories in improving inventory, management, and wastage reporting capabilities. In addition, the COVID-19 therapeutics were successfully integrated onto the VaccineConnect Intelligent Supply Chain module to manage ordering and distribution to FPTI partners.

PHAC supported the ongoing implementation of Canada's Biomanufacturing and Life Sciences Strategy to promote growth of the domestic biomanufacturing and life sciences sector. This will prepare Canada for future pandemics and health emergencies through public health expertise and assist in securing access to domestic pandemic vaccine supply.

In collaboration with Global Affairs Canada and the Global Alliance for Vaccines and Immunization,[xcv] Canada donated the equivalent of 196 million doses in 2022–23. This represented a significant contribution to countries in need of vaccines. At the 2022 G20 Leaders' Summit, Canada announced a contribution of $50 million to the Pandemic Fund to address the significant global financial gaps on pandemic prevention, preparedness, and response. As part of this

commitment, Canada continues to work closely with the COVID-19 Vaccine Global Access (COVAX)[xcvi] facility to ensure surplus doses are made available for donation in direct response to requests made by recipient countries.

Informing COVID-19 prevention and control efforts through enhanced surveillance

In 2022–23, PHAC initiated the process of gathering comprehensive data on COVID-19 cases among hospitalized children through a request for information and the subsequent request for proposals process will continue into 2023–24. This will enhance information gathering on patients identified with COVID-19 while respecting their personal information and improve data collection to contribute to the development of evidence-based decision-making and public health policy.

PHAC also monitored the clinical and epidemiological features of COVID-19, including variants of concern, through enhanced COVID-19 surveillance to better inform prevention and control efforts, contain the pandemic, and mitigate health effects on Canadians. This was done by carrying out a variant-specific risk assessment; PHAC monitored and assessed COVID-19 variant characteristics to determine their potential impact on the public health of people in Canada and tailor prevention strategies. Information was shared with stakeholders for decision-making and summarized for the public on the COVID-19 Epidemiology web page[xcvii] to help promote a greater understanding of how the virus spreads, including its impact on different population groups. Other efforts included maintaining and analyzing the COVID-19 national dataset, a comprehensive repository that includes information such as sex, gender, age, place and time, as well as information on severe outcomes and the variant/lineage, to support evidence-based decision-making. Finally, PHAC contributed to advancing knowledge translation and dissemination of COVID-19-related surveillance and epidemiological resources to inform the public. Over 9.6 million visits to the COVID-19 Epidemiology Update web page were received since April 2020, including 880,017 during the 2022–23 fiscal year.

Based on the Canadian COVID-19 Vaccination Coverage Surveillance System as of March 26, 2023, over 83% of the total population had received at least one dose of a COVID-19 vaccine and over 80% had completed their primary. Age-specific vaccination coverage data showed that over 90% of people 12 years or older have at least one dose, and over 88% had completed their primary series, while among children aged 5–11 years of age, over 51% had received at least one dose of vaccine.

In 2022, PHAC conducted the first cycle of the Childhood COVID-19 Immunization Coverage Survey (CCICS). CCICS was published on January 16, 2023. Vaccination coverage surveys such as the CCICS and other health surveys are used by PHAC to provide data on the key social and demographic characteristics, as well as knowledge, attitudes, and beliefs related to vaccination.

PHAC also conducted analyses of data from the 2021 Childhood National Immunization Coverage Survey (CNICS), and the Survey on Vaccination during Pregnancy implemented in collaboration with Statistics Canada. The results of the 2021 Survey on Vaccination during Pregnancy[xcviii] were released on December 13, 2022.

In addition, PHAC analysed data from the Canadian Community Health Survey (CCHS) to monitor equity in COVID-19 vaccine uptake by comparing vaccination coverage between socio economic groups and between ethnic groups and Indigenous people.[xcix] This is in alignment with The Truth and Reconciliation Call to Justice 3.1.

Providing Canadians with public health guidance and continuing to monitor and integrate public health measures

The Safe Voluntary Isolation Sites Program (SVISP) was developed as a health equity initiative to support infection prevention and control by providing isolation spaces for individuals who were unable to safely isolate from COVID-19 in their usual place of residence. PHAC allocated $68 million in funding in 2022–23 to municipal, provincial, and territorial health partners to support the establishment and operation of voluntary isolation sites. Three new contribution agreements were established in 2022–23. SVISP projects supported 64 sites in 51 communities across Ontario, Nova Scotia, Yukon, Saskatchewan, British Columbia, Manitoba, and the Northwest Territories. Sites were established in both large city centres as well as rural locations and operated in accordance with unique local public health needs. As such, while some sites supported a wide range of individuals, other sites focused primarily on specific groups such as Indigenous people, individuals who are unhoused or houseless, and temporary foreign workers.

SVISP collected monthly data from recipients reporting the gender, age, race/ethnicity, household occupancy, and income level of users at their site(s). In 2022–23, 1,981 individuals used the sites, bringing the program's 3-year total to 21,370. The disaggregated demographic data, collected over three years, indicated that the sites were utilized primarily by equity-deserving groups: 79% identified as a member of a racialized community; 32% identified as Indigenous, Métis, and Inuit; 84% lived in households with three or more individuals; and 1% identified as non-cisgender.

Providing guidance and advice on public health measures

PHAC has focused efforts on key initiatives and activities that provide Canadians and public health stakeholders with scientific advice and guidance for the prevention and control of respiratory infectious diseases. PHAC's guidance on public health measures considered the Canadian context, the best available scientific evidence and expert opinion.

In 2022–23, PHAC developed and updated 16 information products on the public health management of cases and contacts of mpox in Canada, one new summary of evidence for public health measures (PHMs) aimed at reducing transmission of SARS-CoV-2, and 14 public-facing web products (e.g., webpages, infographics) for Canadians on infectious diseases such as COVID-19, mpox, and respiratory infectious diseases.

Through the FPT Public Health Network, PHAC collaborated with FPT Chief Medical Officers of Health to develop and publish the **Federal, Provincial and Territorial (FPT) Public Health Response Plan for the Management of Monkeypox**,[c] as well as three additional **position statements on public health advice**,[ci] including two on COVID-19 vaccination and one on alcohol consumption.

These products were often informed through engagement with communities and scientific experts. The Agency also funded and collaborated in the development, ongoing maintenance, and promotion of the National Institute on Ageing's My COVID-19 Visit Risk tools which helped people in Canada make informed decisions about gathering with others in a way that reduces their risks of spreading COVID-19 and other respiratory diseases. In addition, PHAC monitored 20 diverse sources of COVID-19 related evidence, including email distribution lists related to COVID-19 evidence scans, external evidence networks and organizations, guidance from domestic and international jurisdictions, scientific articles, public opinion research, funded projects, and consultations with key partners.

Through these activities, PHAC provided timely and evidence-based advice, guidance, and recommendations for the use of public health measures to reduce the risk of infectious disease transmission, including COVID-19.

The full list of products include:

- Summary of evidence supporting COVID-19 public health measures[cii]
- COVID-19 Mask use: Advice for community settings[ciii]
- COVID-19: Prevention and risks[civ]
- COVID-19: Cleaning and disinfecting[cv]
- COVID-19: What to do if you or someone in your home is sick[cvi]
- Advice for when you or someone in your home is sick with COVID-19[cvii]
- COVID-19: Cleaning and disinfecting in the home[cviii]
- People who are at risk of more severe disease or outcomes from COVID-19[cix]
- Help reduce the spread of COVID-19[cx]
- Respiratory syncytial virus (RSV): Prevention and risks[cxi]
- Reduce the spread of respiratory viruses[cxii]
- Mpox (monkeypox): Public health management of cases and contacts in Canada[cxiii]
- Mpox (monkeypox): Symptoms, getting tested, what to do if you have mpox or were exposed[cxiv]
- Mpox (monkeypox): How it spreads, prevention and risks[cxv]
- Mpox (monkeypox): How operators can reduce the risk of spread in community settings[cxvi]
- Monkeypox: Steps for removing contaminated clothing[cxvii]

To continue to build trust in the safety and effectiveness of COVID-19 and other routine vaccines and support the needs of populations and communities, PHAC worked to promote routine and COVID-19 vaccination during pregnancy. PHAC developed webinars and webcasts, revamped A Parent's Guide to Vaccination,[cxviii] A Teen's Guide to Vaccination[cxix] and an Adult's Guide to Vaccination,[cxx] developed articles for the Vaccine Confidence InfoBulletin, and developed social media posts. Funding was also provided to the Canadian Association of Midwives[cxxi] to support their work in reaching pregnant people and people with fertility-related vaccine hesitancy through a wide range of efforts, including public engagement and peer mentorship. In 2022–23, PHAC saw encouraging results from the 2021 Survey on Vaccination during Pregnancy,[cxxii] which demonstrated an increase in both pertussis and influenza immunization in pregnancy.

Work is ongoing at the federal level to build vaccine confidence and includes a diverse array of approaches to support PT efforts including engaging with more than 200 stakeholder organizations through expert roundtables, multilateral networks, bilateral meetings, and program outreach and issuing monthly Vaccine Confidence InfoBulletins to more than 1,000 health professional and public health stakeholders, including organizations with significant reach (e.g., the Canadian Nurses Association[cxxiii] has 16,000 certified nurses in its membership) to mobilize healthcare providers in promoting vaccine uptake among populations experiencing hesitancy. In addition, PHAC is establishing the Vaccine Confidence Advisory Network, an advisory body composed of sixteen external multidisciplinary experts that provides PHAC with independent, credible advice on COVID-19 vaccine confidence strategies for key target populations. This work helped to inform activities to increase vaccine confidence for Canada's vaccine rollout, including vaccine mandates and pediatric uptake.

Throughout the COVID-19 pandemic, vaccination helped keep communities healthy and protected our health care systems. Through the Immunization Partnership Fund (IPF),[cxxiv] PHAC received $3 million in additional funding through 2022–23 to enhance existing IPF projects to promote the uptake of COVID-19 booster vaccines. This was in addition to the $45.5 million in time-limited COVID-19-focused funding (2020–2023) directed towards populations experiencing

vulnerability and others disproportionately impacted by COVID-19. IPF initiatives were deployed in communities across Canada to close the gap among populations with lower vaccine uptake, enabling informed vaccination choices, decreasing barriers to access and increasing vaccine confidence and uptake.

The IPF prioritized community-led programming and projects that supported racialized and Indigenous communities, children and families, newcomers and refugees, individuals with complex health needs, healthcare, and community support workers, marginalized and underserved populations, minority language communities, youth and young adults, seniors, and those vulnerable to misinformation and disinformation. As of December 2022, more than 100 IPF funding recipients had tailored evidence-informed, equity-based, and culturally safe COVID-19 projects for the audiences they served. This included 1,180 vaccination clinics in partnership with local health authorities, resulting in 333,400 vaccinations, predominantly among hard-to-reach, marginalized and underserved communities.

Since the summer of 2021, COVID-19 Proof of Vaccination credential continues to support Canadians travelling internationally by providing those who were vaccinated in Canada with a simple, consistent way to demonstrate their COVID-19 vaccination history. The **COVID-19 Proof of Vaccination Fund**[cxxv] was established to support provinces and territories for the development and maintenance of COVID-19 proof of vaccination programs. This support will be available for as long as other countries require it (up to 3 additional years). Six provinces and territories accessed the Fund.

The NACI continued to provide impactful immunization guidance that is used broadly by provinces and territories and healthcare professionals in their decision-making. Since the beginning of the COVID-19 pandemic, NACI has published 48 COVID-19 vaccine guidance documents to support program planning, including 32 in 2022–23. This represents a significant increase from approximately 3–4 communications products released annually prior to the pandemic. NACI made substantial efforts to communicate its findings and recommendations, including plain language summaries for all statements published in the last year to support public understanding of NACI advice. NACI also regularly provided briefings to Chief Medical Officer of Health and Canadian Immunization Committee.

In 2022, NACI published advice on newly approved pneumococcal vaccines in adult populations, updated influenza vaccine program advice, and new advice related to mpox, which included the rapid publication of advice on the use of Imvamune in the context of mpox outbreaks in Canada.

Advancing studies on vaccine safety and effectiveness

In April 2020, the Government of Canada set up the **COVID-19 Immunity Task Force (CITF)**,[cxxvi] a $300 million program with the goal of catalyzing, supporting, funding and harmonizing studies into COVID-19 immunity to inform to support evidence-informed decision-making at all levels of government.

To date, the CITF program has funded 120 studies across Canada led by 103 lead investigators in areas such as immune science, seroprevalence, vaccine safety and effectiveness, and immune testing. As of March 2023, researchers had published 215 academic articles and preprints related to CITF-funded projects. Results from these studies continue to contribute valuable information on the status of COVID-19 immunity in Canada, such as providing regular, reliable estimates of seroprevalence across Canada (infection-acquired and vaccine-induced).

In January 2023, the CITF obtained policy and financial authority to continue its operations into 2023–24 to support a final year. Activities in this final year are centred on completing select

scientific studies, mobilizing knowledge generated, transitioning core legacy infrastructure where feasible and appropriate and compiling lessons learned to inform future pandemic preparedness. In March 2023, the CITF hosted a scientific meeting bringing together over 300 researchers and FPTI government representatives from across Canada to share research results and lessons learned from the three years of the COVID-19 pandemic and plan for the final year. Key results and achievements of CITF funded research includes:

- The only nationally representative picture of seroprevalence in Canada;
- The levels and trends in SARS-CoV-2 infection through seroprevalence assessment across age groups, risk groups, occupational hotspots and geographies in Canada hot spot areas, and distinctions based on variants of concern;
- The safety and effectiveness of vaccines across different sub-populations, such as age groups and populations who experience a higher risk (e.g., people who are immunocompromised, people who are pregnant);
- The degree and duration of immune protection arising from infection and/or vaccination, and the risk of reinfections or infections among individuals who are vaccinated or unvaccinated;
- How best to measure immunity linked to SARS-CoV-2 using diverse assays (venipuncture, fingerprick, nasopharyngeal, other);
- Data modeling of aggregate reporting of seroprevalence findings in Canada and globally through support for the creation of SeroTracker.[cxxvii]

PHAC coordinated and funded more than 40 publicly available evidence syntheses monitoring the evolving evidence on COVID-19 vaccine effectiveness and safety. These products were used by PHAC to inform awareness, recommendations, and responses to inquiries. Additionally, PHAC convened meetings of intramural and extramural provincial/territorial (PT), academic, and community health network scientists involved in the response to the mpox outbreak across Canada. The Expert Panel provided a valuable platform for discussions between PTs and academic networks to collaborate on vaccine effectiveness studies for the use of smallpox vaccine against mpox. The results of studies conducted by PT researchers will be shared at a working group meeting convened by the NACI at the end of June 2023.

PHAC, the Canadian Institutes of Health Research (CIHR) and the International Development Research Centre (IDRC) together contributed $4.84 million in funding for Sudan Virus Disease vaccine clinical trials in Uganda ($1.35 million from PHAC). The primary objectives are to evaluate safety and immunogenicity of the three candidate vaccines approved for the trial.

As part of its efforts to build trust in the safety and effectiveness of COVID-19, PHAC funded the Canadian Cardiovascular Society (CCS)[cxxviii] for a project titled CCS National Active Surveillance Study of Myocarditis and/or Pericarditis following mRNA COVID-19 Vaccination (MYCOVACC).[cxxix] This study aims to provide insights into long-term outcomes of post-vaccination myocarditis and/or pericarditis, a safety issue that had impacted vaccine confidence in Canada particularly due to its higher risk among young people. In a similar vein, PHAC also funded McMaster University to continue a project titled Diagnosis and Reporting of Vaccine-Induced Immune Thrombotic Thrombocytopenia,[cxxx] started in 2021 following the emergence of a recurring version of this serious condition.

Fiscal year 2022–23 was the first full year of operation for the pan-Canadian no-fault Vaccine Injury Support Program (VISP).[cxxxi] The VISP provides all individuals in Canada with access to fair and timely financial support in the rare instance that they experience a serious and

permanent injury from a Health Canada authorized vaccine administered in Canada on or after December 8, 2020. The program for individuals vaccinated in all provinces except Quebec is administered by a third party through a funding agreement with PHAC. PHAC also provides funding to the Government of Québec for the ongoing administration of its existing provincial program.

PHAC continues to support all individuals vaccinated in Canada and continues to fund, monitor, facilitate the sharing of expertise, and provide policy guidance on vaccine injury support to both the pan-Canadian and Quebec programs. In addition, PHAC began targeted outreach to increase awareness of the program among health care professionals across Canada who are best placed to support those who experience a serious and permanent injury because of receiving a Health Canada authorized vaccine in accessing the program.

Building on Canada's vaccine safety surveillance system, PHAC expanded surveillance to monitor and communicate to Canadians adverse events associated with safety of COVID-19 vaccines. Data collected demonstrated that of the 43,105 individual reports (0.053% of all doses administered in Canada), 8,924 were considered serious (0.011% of all doses administered in Canada). In 2022–23, PHAC published **monthly reports on Vaccine Safety**[cxxxii] and contributed data to Health Canada's **public access to on-line database on Vaccine Vigilance Adverse reactions**.[cxxxiii]

In 2022, PHAC managed two Public Health Emergencies of International Concern involving vaccine preventable diseases (i.e., COVID-19 and mpox) and enhanced monitoring during the 2022–23 influenza season. PHAC also continued to roll out the **Advisory Committee on Causality Assessment (ACCA)**[cxxxiv] and continued to build national causality assessment capacity to provide additional support to PTs that complements the causality assessment activities undertaken by HC and vaccine manufacturers. In 2022, ACCA addressed the causality assessment topic of Thrombosis with Thrombocytopenia Syndrome (TTS). This included the development of a **new ACCA page**[cxxxv] and the posting of the **TTS assessment results**[cxxxvi] online.

Reducing the emergence and spread of antimicrobial resistance

Antimicrobial resistance (AMR) has continued to threaten the effective prevention and treatment of an ever-increasing range of infections caused by bacteria, parasites, viruses, and fungi. Addressing the drivers and the impact of AMR presents significant challenges both domestically and internationally. In 2022–23, PHAC supported efforts to reduce the emergence and spread of AMR by taking a One Health Approach and building on the lessons learned from the COVID-19 pandemic.

In collaboration with FPT partners, PHAC led the prioritization and completion of the **Pan-Canadian Action Plan on AMR (PCAP)**,[cxxxvii] which incorporates COVID-19 lessons learned and establishes federal, provincial, and territorial five-year commitments (2023–2027) for collectively addressing the threat posed by AMR. The Agency engaged Indigenous organizations to help capture in the PCAP the unique contexts and priorities of Indigenous Peoples as they relate to AMR. In 2022–23, PHAC also established an external, multi-disciplinary Advisory Group on AMR to provide expert scientific and technical advice that will help inform federal policies and programs on AMR.

International efforts included supporting Canada's work with global partners to build global momentum on AMR, including through key leadership tables, such as the G7 and G20, and through bilateral engagements with global AMR leaders. PHAC also supported Canada's efforts to advance global equitable access to antimicrobials by becoming one of the first countries to support SECURE, a new global initiative that will expand access to antimicrobials across the world, with a focus on low and medium-income countries that

are most vulnerable to the adverse effects of infectious disease. As a national and international leader, PHAC took part in activities to promote World Antimicrobial Awareness Week activities in November 2022.

PHAC also piloted the first ever Canadian National Antimicrobial Prescribing Survey (NAPS) to lay the foundation for a robust program to collect data on the use of antimicrobials in Canadian health care facilities and support the development of effective and evidence-informed antimicrobial stewardship interventions, both by medical speciality and by hospital. In 2022–23 the Agency completed a survey to assess the prevalence of AMR-associated infections/ colonization and the patterns of antimicrobial use (AMU) among residents of long-term care facilities (LTCFs) in Canada, which will inform the design of stewardship interventions and guidelines and launched the pilot phase of a behavioural science-enhanced project to optimize the management of urinary tract infections in Canadian LTCFs. Another survey conducted was the surveillance of foodborne AMR from farm to fork and AMU in animals, expanded on-farm surveillance by adding on-farm surveillance of AMR and AMU in feedlot beef cattle and dairy cattle, and by increasing retail surveillance from three to four provinces as well as adding seafood.

PHAC finalized an approach to establish ongoing wastewater AMR and AMU surveillance, a valuable public health tool that can provide timely and comprehensive information at the population level about existing and emerging public health concerns related to AMR. In 2022–23 PHAC published the **2022 Canadian Antimicrobial Resistance Surveillance System Report**[cxxxviii] (CARSS Report), an integrated analysis of AMR and AMU in humans and animal as well as an accompanying **data blog on AMR surveillance**[cxxxix] with key findings from 2020 and updated the **interactive dashboard on AMU in Canada**.[cxl] PHAC also published a special edition of the **Canada Communicable Disease Report (CCDR)**,[cxli] covering AMR stewardship, point prevalence surveys in small hospitals and in long term care facilities, public opinion research and drug resistant gonorrhoea.

PHAC shared information on AMR with stakeholders by presenting webinars on the CARSS Report and a recently completed public opinion research report, which provided insights into the knowledge, perception, and use of antibiotics by the Canadian public and highlighted priorities and opportunities to advance awareness of AMR and appropriate use of antibiotics. Other knowledge mobilization efforts included sharing available SGBA Plus disaggregated data with surveillance partners and stakeholders. This data will support analyses specific to populations living in situations of vulnerability and associated policy initiatives, inform effective public health action, and serve as an indicator to determine if actions to address AMR are having an impact on AMR and AMU trends, both for the general population and for priority populations.

The Canadian Nosocomial Infection Surveillance Program (CNISP) has been collecting surveillance (epidemiologic) and laboratory data on Healthcare-Associated Infections (HAIs) since 1995 to help reduce the burden of HAI and the impact of AMR in Canadian acute care hospitals by providing hospital practitioners with benchmark rates and informing antimicrobial stewardship policies. Through Budget 2021, CNISP obtained additional funding to initiate surveillance of antimicrobial resistant organisms (ARO) in LTCFs and to increase the number of hospitals participating in the program including those in more rural and remote regions. As a result, in 2022–23 PHAC expanded the hospital network to include 101 sentinel acute care hospitals in ten provinces and one territory, from 89 in the previous year. The expansion of CNISP strengthens the collective effort needed to ensure the appropriate representation and implementation of surveillance in LTCFs and underrepresented acute care populations across Canada. To support this work, CNISP has developed a long-term care working group and

launched a feasibility study to assess how HAI surveillance could be implemented in LTCFs and the feasibility of conducting HAI surveillance in this complex setting.

In efforts to increase representativeness, CNISP has launched the Simplified Data Set (SDS). The SDS uses standardized CNISP definitions to collect annual aggregate HAI surveillance data targeting all Canadian acute-care facilities that do not already participate in CNISP active surveillance. To date, CNISP has piloted the SDS with the surveillance of C. difficile infection in over 90 Alberta hospitals. Preliminary results show interesting differences in rates between CNISP and SDS-participating hospitals, highlighting the importance of combining these data sources to have a more representative and accurate reflection of Canadian HAI and ARO rates. The collection of annual, aggregate infection rate data reduces workload for participating hospitals that do not necessarily have the resources for full-scale active surveillance. Combining both data sources increases the number and diversity of hospitals submitting data, enhancing CNISP's national surveillance data and provides a more accurate reflection of the true burden of HAI and ARO rates in Canadian acute-care settings.

In 2022–23 PHAC published a series of works including a description of **HAI and AMR surveillance data collected between 2016 and 2020 in acute care hospitals in Canada**,[cxlii] as well as an epidemiological overview of **select HAIs related to device and surgical procedures from 2011 to 2020**[cxliii] in the annual CCDR to help establish benchmark rates for national and international comparison, identify potential risk factors and assess and inform specific interventions to improve patient health outcomes. CNISP performs consistent, standardized monitoring to reliably estimate HAI burden and help inform federal, provincial, and territorial public health authorities and Canadian hospital policies and programs.

Other publications include:

- **Cerebrospinal fluid (CSF) shunt–associated surgical site infection with three-month versus twelve-month surveillance periods in Canadian hospitals**[cxliv]
- **Characterization of Healthcare-Associated and Community-Associated Clostridioides difficile (C. difficile) Infections among Adults, Canada, 2015–2019**[cxlv]
- **Trends in Clostridioides difficile (C. difficile) infection rates in Canadian hospitals during the coronavirus disease 2019 (COVID-19) pandemic**[cxlvi]
- **Vancomycin-resistant Enterococcus sequence type 1478 spread across hospitals participating in the Canadian Nosocomial Infection Surveillance Program from 2013 to 2018**[cxlvii]

Additionally, PHAC published **Surveillance for viral respiratory infections among inpatients in CNISP hospitals**[cxlviii] in January 2023 to support public health professionals in understanding the burden and severity of both community and healthcare associated VRI, including COVID-19, and improving their ability to identify high-risk groups, risk factors and patient outcomes.

In 2022, PHAC published **CNISP surveillance data**[cxlix] on the Government of Canada Infobase data blog providing interactive visualizations on HAI, ARO and AMU rates and providing timely data syntheses and interactive visualizations. PHAC's Healthcare Associated Infection Prevention and Control (HAIPC) program provides national leadership in preventing the spread of infectious disease within Canadian healthcare settings. In 2022–23, HAIPC published interim guidance entitled: **Notice: Candida auris interim recommendations for infection prevention and control**.[cl] These guidelines are fundamental to protecting healthcare workers while providing care, and the public while receiving care at these facilities. PHAC's work in this area provided

leadership and support to provinces and territories, the Health Portfolio, and other federal departments on infection prevention and control measures.

PHAC's Enhanced Surveillance of Antimicrobial-Resistant Gonorrhea (ESAG) program collects AMR-gonorrhea data linked with individual-level epidemiological data and is a critical component to preventing the spread of untreatable gonorrhea strains in Canada. This data helps to inform gonorrhea treatment guidelines and public health activities. Results were published in an **ESAG infographic**[cli] in 2022. In order to expand ESAG and increase representativity, the program engaged discussions with four provinces (Quebec, Ontario, Saskatchewan and Newfoundland and Labrador) for ESAG enrolment, and data sharing agreements were discussed with British Columbia and New Brunswick.

In 2022–23 PHAC's **Canadian Integrated Program for Antimicrobial Resistance Surveillance (CIPARS)**[clii] celebrated its 20th anniversary. CIPARS collects, analyzes, and communicates trends in AMR and AMU for foodborne bacteria from humans, animals, and retail meat across Canada. CIPARS shared several surveillance reports and new communication products in 2022–23. These included: These included: **interactive data visualizations**[cliii] for AMR and veterinary antimicrobial sales reporting to improve data availability and access for stakeholders and the public; and infographics and industry-specific reports for more timely knowledge translation and exchange of surveillance findings and to increase awareness of program activities.

CIPARS expanded on-farm monitoring by adding foodborne AMR and animal AMU in feedlot beef cattle nationally and dairy cattle regionally, and expanded retail monitoring from three to four provinces and added seafood to routine sampling (added to beef, pork, chicken, and turkey). CIPARS also supported efforts to reduce the emergence and spread of antimicrobial resistant bacteria among animals, food, and people by providing expertise to the new **Quadripartite Technical Group on Antimicrobial Resistance and Use Integrated Surveillance**.[cliv]

PHAC also contributed to major global monitoring programs on AMU in animals and AMR arising through the food chain. For example, veterinary antimicrobial sales data (collected/analyzed by PHAC and HC) were provided to the World Organization for Animal Health's **ANIMUSE system**,[clv] CIPARS data on human AMR (Salmonella) were provided to the WHO Global Antimicrobial Resistance and Use Surveillance System, and CIPARS pre-tested the developing Food and Agriculture Organization of the United Nations (FAO)'s **International FAO Antimicrobial Resistance Monitoring (InFARM) System**.[clvi]

AMRNet Initiative

PHAC continues to expand its contributions to AMR surveillance. AMRNet, a PHAC-led collaborative surveillance program composed of federal, provincial, and territorial public health laboratory partners, expanded its surveillance from three provinces and territories to six. For the first time, results from AMRNet were published in the CARSS Report and submitted to the WHO's Global AMR and Use Surveillance System initiative as part of Canada's international commitments. These programs and collaborations help public health professionals better understand local and global patterns of resistance, which enables faster and more effective responses.

Reducing the health impacts of Sexually Transmitted and Blood-borne Infections (STBBI)

Sexually transmitted and blood-borne infections (STBBI) continue to be a significant public health concern in Canada. Between 2011 and 2019, rates increased by 26% for chlamydia, 171% for gonorrhea, and 389% for infectious syphilis.[25] During the COVID-19 pandemic, there were

[25] Public Health Agency of Canada (2023), Chlamydia, Gonorrhea and Infectious Syphilis in Canada: 2020 (infographic). Cat.: HP40-284/2020E-PDF | ISBN: 978-0-660-47203-4| Pub.: 220710. https://www.canada.ca/en/public-health/services/publications/diseases-conditions/chlamydia-gonorrhea-infectious-syphilis-canada-2020-infographic.html

serious impacts on the delivery and accessibility of preventive, testing and treatment services, leading to a decrease in diagnosed infections in 2020 despite ongoing outbreak. In December 2022, PHAC published **Canada's 2021 rates of Infectious Syphilis and Congenital Syphilis**;[clvii] data analysis,[26] demonstrating that increasing rates of infectious syphilis in females aged 15 to 39 years have led to increased counts of congenital syphilis. The 2021 national rate of infectious syphilis and the number of cases of early congenital syphilis were respectively 768% and 1271% higher than in 2017.

STBBI surveillance is essential to understanding the impact of these conditions for people in Canada, including priority groups who experience disproportionate vulnerability to and consequences of STBBI. As outlined in the **Pan-Canadian STBBI Framework for Action**,[clviii] PHAC continues to coordinate a pan-Canadian approach to data collection, including enhanced data collection on infectious and congenital syphilis through the Syphilis Outbreak Investigation Coordinating Committee, to provide evidence-based public health measures guidance and support in understanding trends in nationally notifiable STBBI.

In 2022–23, PHAC published the **2018–2020 Summary findings from Tracks surveys executed by Saskatchewan (SK) and Alberta (AB) First Nations, Canada**,[clix] a result of the successful collaboration with First Nations organizations, Northern Inter-Tribal Health Authority and Indigenous Services Canada's First Nations and Inuit Health Branch. These findings provide PHAC with critical knowledge of the underlying determinants that contribute to the higher rates of HIV and Hepatitis C in SK and AB's on-reserve communities. To support the Call to Action 19, data from this survey are used to inform public health responses aimed at reducing and preventing infections and improving treatment and services.

Additional summaries of sexually transmitted infections (STI) epidemiological trends to support the development of evidence-informed public health programs and policies published in 2022–23 include: the **2019**[clx] and the **2020**[clxi] infographics presenting chlamydia, gonorrhea and infectious syphilis trends in Canada, the **2019 National Hepatitis C estimates in Canada: Incidence, prevalence, undiagnosed proportion and treatment**,[clxii] the 2020 monitoring updates for **Hepatitis B**[clxiii] and **Hepatitis C**[clxiv] in Canada, and the **2019 infographic: People living with Hepatitis C (HCV) in Canada.**[clxv] National recommendations for the screening and diagnosis of STBBI, and the treatment of sexually transmitted infections (STI) of national public health importance are outlined in the **STBBI Guides for health professionals**,[clxvi] which PHAC updated to reflect the most recent published reports.

In collaboration with Indigenous partners, and federal, provincial and territorial public health authorities and stakeholders, PHAC followed through on commitments made in the Pan-Canadian STBBI Framework for Action and the Government of Canada Five-Year Action Plan on STBBI including publishing **Canada's 2020 estimates of national HIV incidence and prevalence and on progress towards meeting the 90-90-90 targets**[clxvii] which can be used to understand the effectiveness of current responses to HIV in Canada and identify areas for improvement. Complementary publications include: **Canada's progress towards global HIV targets (90-90-90), 2020 (infographic)**[clxviii], **HIV in Canada - People living with HIV and new HIV infections, 2020 (infographic)**[clxix], and **Trends in Pre-Exposure Prophylaxis (PrEP) use in 9 Canadian provinces – 2018–2021 (Infographic).**[clxx]

Additionally, PHAC published the **HIV in Canada, Surveillance Report to December 31, 2020**,[clxxi] which is the first national report presenting information on first-time diagnosis to examine infection and transmission of HIV in Canada. This report provided evidence for the planning, evaluation, and implementation of HIV prevention

[26] In 2021, six provinces and territories provided sexual orientation data: British Columbia (BC), Alberta (AB), Saskatchewan (SK), Ontario (ON), New Brunswick (NB), and the Yukon Territories (YT). These provinces and territories represented 69% of the Canadian population.

programs. The Agency also secured $8 million to launch a proof-of-concept to purchase and distribute HIV self-test (HIVST) kits through community-based organizations as a means of increasing the number of people in Canada who could access testing. By the end of March 2023, PHAC procured 70,535 HIVST kits to community organizations who distributed 10,343 kits to individuals across Canada. Since the launch of the HIVST Initiative on September 26, 2022, participating organizations have reported a high-level of satisfaction with the program. The initiative has demonstrated the value of offering low-barrier access to testing to help identify the undiagnosed, with a reported 46% of respondents indicating that they had never been tested previously.

DID YOU KNOW?

The Government of Canada has achieved the 1st and 3rd 90-90-90 targets[27] expected for 2020. Among the 62,790 people estimated to be living with HIV at the end of 2020, 90% were diagnosed. Of those diagnosed, 87% were estimated to be on treatment and from which an estimated 95% had a suppressed viral load.

In 2022–23, PHAC established a time-limited FPTI Task Group to advise on a national STBBI indicators framework and domestic targets for the Communicable and Infectious Disease Steering Committee and the Public Health Network Council's consideration. The development of indicators and targets is critical for the measurement and reporting of progress against the goals of the Pan-Canadian Framework for Action and aligns with PHAC's global commitments to reduce the health impacts of STBBI in Canada. The initial set of indicators is to be published in summer 2023; additional indicators are to be published in fall 2023.

Finally, PHAC undertook an ongoing review and renewal of the National HIV/AIDS Surveillance System (HASS) to develop evidence which will inform the development of better research evidence and more appropriately tailored prevention programs. In accordance with the principles of **Canada's Anti-Racism Strategy**,[clxxii] PHAC's collaborative efforts with community members helped establish a Black Expert Working Group intended to provide advice to HASS and contribute to the co-development and implementation of strategies to improve the completeness information related to race and ethnicity variables.

[27] The global 90-90-90 targets state that by 2020, 90% of all people living with HIV know their status, 90% of those diagnosed receive antiretroviral treatment (ART), and 90% of those on treatment achieve viral suppression.

DID YOU KNOW?

In the summer of 2022, the Government of Canada participated in the 24th International AIDS Conference (AIDS 2022) held in Montreal. The Government of Canada's involvement in this significant event was a collaborative effort spearheaded by PHAC through the Interdepartmental Working Group (IDWG), which comprised 11 departments.

PHAC played a vital role in bringing together policymakers, community-based organizations, and researchers to share information on the most recent evidence on HIV and best practices. In working with its federal partners, PHAC organized four featured events, facilitated eight satellite sessions, presented six abstracts, hosted a workshop, and led various stakeholder engagement sessions.

During the conference, PHAC endorsed the global Undetectable = Untransmittable (U=U) call to action, which emphasizes that when people living with HIV take medication and maintain undetectable viral load they can live long healthy lives without fear of passing it on to a sexual partner, and announced the funding of $17.9 million dedicated to HIV testing.

PHAC is working with people living with key population groups and healthcare providers to further integrate the U=U into programming and policy through the development of advertising, training for health professionals, and investments in community.

Impacts of the COVID-19 pandemic on STBBI-related services

To better understand the impact of COVID-19 on the delivery of and access to STBBI-related services and other factors, including the social determinants of health, mental health and substance use in some populations, PHAC conducted a series of national online surveys[28] from 2020–2022 to generate evidence on the impact of COVID-19 on the delivery of and access to STBBI-related and harm reduction services, and on social determinants of health including mental health and substance use among First Nations, Inuit and Metis (FNIM) people,[29] African, Black and Caribbean people, and people who use drugs. PHAC published nine national reports, infographics and data blogs.

Findings indicated that overall access to STBBI prevention, testing and treatment services were low among key populations. Some of the services that participants reported difficulty in accessing, such as mental health counselling referrals, community services (e.g., peer support services) or STBBI information and education including outreach events, were also the services that providers reported that stopped or decreased at some point in time during the COVID-19 pandemic. Also, those living in situations of vulnerability before the pandemic were disproportionately impacted and reported an exacerbation during the pandemic. In addition, those with worsening mental health compared to the pre-pandemic period also reported the most increased substance use and other substance use behaviours making them at higher risk of adverse outcomes such as STBBIs or death due to drug toxicity.

[28] Between 2020 and 2022, PHAC conducted four national online surveys among 1) Service Providers, 2) ACB people, 3) PWUD, and FNIM people. The National Report presenting findings from the survey conducted among STBBI service providers on the impact of COVID-19 on the delivery of STBBI prevention, testing and treatment including harm reduction services in Canada, was published in March 2022.

[29] Analysis of the survey among First Nations, Inuit and Métis people is being done with support from the National Collaborating Centre for Indigenous Health and the National Collaborating Centre for Infectious Disease. Finding will be shared at a later date.

Engagement with federal, provincial, and territorial stakeholders, Indigenous partners, community-based organizations, and people with lived and living experience to reduce the incidence and health impacts of STBBI, improve access to testing, treatment, care, and support, and reduce STBBI stigma and discrimination are key priorities for PHAC.

In early 2022–23, PHAC approved over $163 M (2022–2027) in funding to support approximately 180 community-based interventions through the HIV and Hepatitis C Community Action Fund,[clxxiii] and the Harm Reduction Fund.[clxxiv] This funding ensures that community-based efforts reach key populations, including people unaware of their HIV or hepatitis C status, and link them to testing, prevention, treatment, and care services. This funding also allows communities to design and implement evidence-based front-line projects to prevent new and reoccurring infections; ensures high impact interventions are brought to scale so that more people benefit from them; and supports community-based efforts to reduce stigma toward populations disproportionally affected by STBBI, including people living with HIV or hepatitis C.

Preparing for health risks associated with climate-driven infectious diseases

PHAC continued supporting multiple efforts to prepare for health risks associated with climate driven infectious diseases in 2022–23, including the development of Canada's first National Adaptation Strategy,[clxxv] the implementation of the Infectious Disease and Climate Change Program, and work with the Métis National Council, Manitoba Métis Federation and Governing Members to better understand climate change and health risks and potential opportunities to build community resilience. To mobilize action and capacity to better monitor and track emerging risks, as well as advance education and awareness activities, PHAC launched two-phased solicitation process under the Infectious Disease and Climate Change Fund[clxxvi] with seven new projects chosen to begin next fiscal year.

PHAC continued to prioritize monitoring and laboratory diagnostics activities (particularly vector-borne diseases such as West Nile virus and Lyme disease), though publishing annual monitoring reports, scientific research, risk maps and models, and infographics. These tools are used to inform federal, provincial, and territorial decision-making, as well as for health professionals and the public. The Report to Parliament on the Federal Framework on Lyme Disease[clxxvii] was tabled in both Houses of Parliament in June 2022. To highlight the work and activities of the Framework, the Federal Framework on Lyme Disease 2017–2022 Facts & Figures infographic[clxxviii] was published in June 2022.

In 2022–23 PHAC also launched a suite of novel resources to improve usability and availability of information on ticks, tick bite prevention and other tick-borne diseases for public health professionals. Over 3000 copies of awareness materials and resources including posters, pamphlets, postcards, and infographics were downloaded. PHAC's Lyme and Other Tick-borne Diseases email subscription list[clxxix] was created to provide monthly updates to the public on PHAC's tick-borne disease projects, programs, activities, and engagement opportunities and has almost 1000 subscribers from across Canada and around the world. PHAC's Lyme disease awareness resources[clxxx] can now be downloaded in Arabic, Cantonese, Mandarin, Spanish, Italian, Punjabi, and Tagalog to improve accessibility of tick-bite prevention information.

Result 2.2: Infectious disease outbreaks and threats are prepared for and responded to effectively

Expanding infrastructure to address public health threats

In May 2022, PHAC established a team to modernize the Creutzfeldt-Jakob Disease Surveillance System (CJDSS)[clxxxi] and build additional capacity to protect Canadians from human prion diseases. The CJDSS conducts prospective national monitoring for all types of human prion disease in Canada, and provides specialized medical, scientific, and technical expertise to health professionals to support diagnosis and public health actions within provinces and territories. In 2022–23, PHAC made considerable progress on these commitments by enhancing expertise (e.g., program, nursing, policy, and epidemiological capacity), and enhancing collaboration with partners, putting in place the foundation for information sharing agreements with provinces/territories. PHAC also implemented plans for updating information technology and information management practices.

Wastewater surveillance

In 2022–23, PHAC expanded SARS-CoV-2 wastewater surveillance to several additional sites across Canada. From this improved surveillance, PHAC conducted genomic sequencing of selected SARS-CoV-2 samples collected from 76 municipalities. Wastewater surveillance has enabled PHAC to track the emergence and spread of SARS-CoV-2 variants in Canada. In collaboration with partners, PHAC launched a national wastewater dashboard[clxxxii] showing SARS-CoV-2 trend data across 11 provinces and territories. PHAC established an automated wastewater COVID-19 genomics methodology that decreased costs, test time, and sample input volume while significantly increasing sample capacity. By leveraging systems implemented during the COVID-19 pandemic, PHAC expanded wastewater surveillance to other priority pathogens including seasonal influenza, RSV, and mpox and developed forecasting models using clinical and wastewater surveillance data.

Genomics capacity

PHAC continues to enable timely interjurisdictional comparisons, data sharing, technology transfer, and knowledge translation of genomic sequencing and surveillance across Canada through the Genomics Liaison Technical Officer program. This program helped improve turnaround times for data sharing and submission to the national database, from 21 days to 15 days after sample collection, and increased completeness of the contextual data shared from 82% to 97%. Timely and accurate data sharing is critical for maintaining local and national situational awareness and supporting appropriate public health responses.

Canadian COVID-19 Genomics Network

During the COVID-19 response, PHAC developed a robust infrastructure for SARS-CoV-2 genomic surveillance that can be quickly deployed and customized for other infectious disease outbreaks. In 2022–23, this genomics capacity was rapidly deployed to address emerging threats including mpox and poliovirus. PHAC confirmed the first diagnostic cases of mpox in Canada and generated whole-genome data for mpox clinical specimens.

Mpox response

PHAC used predictive modelling to simulate disease transmission and inform the Government of Canada's outbreak response to mpox. Using data obtained from outbreak samples, PHAC evaluated diagnostic screening assays to ensure timely contact tracing, infection control, and patient case management. Through validating the effectiveness of existing antivirals and mpox antibodies, PHAC has developed tools to support future responses and public health measures against mpox for Canadians.

PHAC integrated science and research in the context of emerging public health threats. During the mpox response the Agency supported the use of science advice for guidance development and research collaboration through the engagement of intramural and extramural experts via an Expert Panel. PHAC supported scientific collaboration on vaccine effectiveness and therapeutics studies and developed research priorities for mpox aligned with the WHO Research and Development Blueprint.

Diagnostic testing

PHAC expanded diagnostic testing capabilities in Northern, Remote, and Isolated (NRI) communities to include RSV and Influenza through training support, quality oversight, and technology upgrades. By taking a community-led approach, PHAC expanded programs established during the COVID-19 response and supported sustainability and self-determination for communities containing a high proportion of historically underserved populations in Canada.

Conducting analyses of foodborne illness trends to improve food safety

Every year, people in Canada, regardless of age, race, or gender, are exposed to foodborne illness pathogens that can lead to both mild and severe illness. PHAC is responsible for responding to outbreaks of enteric illness (such as Salmonella or E. coli) transmitted through food, water, contact with animals or other routes when the outbreak spans more than one province/territory or involves Canada and another country. PHAC collaborates with PT public health partners, the Canadian Food Inspection Agency and Health Canada, as well as international partners to investigate the source of these outbreaks. PHAC has a dedicated team in place for investigating foodborne illness outbreaks, that follows evidence driven protocols and proven processes. Furthermore, as detailed in the evaluation of PHAC's Food-borne and Water-borne Enteric Illness Activities 2017–18 to 2021–22, PHAC has an efficient and effective approach for food/water-borne enteric illness activities. Guiding documents and processes are well developed, clarify mandates, define roles and responsibilities, and provide guiding practices. These activities provided information, tools, and expertise to support the work of stakeholders to prevent, detect, and respond to food/water-borne illnesses.

In 2022–23, PHAC analyzed foodborne illness trends to support the development of food safety policies for the long-term prevention of foodborne illnesses and outbreaks. Additional activities included:

- Leading the response to four multi-jurisdictional enteric illness outbreaks, which included conducting 129 interviews with affected individuals to gather information about the source of the outbreak. PHAC's efforts led to the identification of three outbreak sources and contributed to multiple product recalls from the Canadian marketplace and consumers' homes, eliminating the risk of additional illnesses;
- Within the context of these outbreaks, PHAC issued several public health notices, an online update, and various messages via social media channels to provide people in Canada with timely information about multi-jurisdictional enteric illness outbreaks under investigation and to provide guidance on how to prevent foodborne illness;
- Assessed signals for 373 enteric illness events to determine if additional investigation was required;
- Provided technical expertise and support to provincial and territorial public health partners for 13 foodborne illness outbreak investigations in single jurisdictions;
- Generated foodborne illness monitoring data to support the detection and response for foodborne illness clusters and outbreaks and the development of food safety policies;

- The National Enteric Surveillance Program (NESP)[clxxxiii] continued to provide timely, reliable data on foodborne illness to stakeholders; from 2022–23, NESP generated and distributed 52 Weekly Surveillance Reports including four Enhanced Quarterly Surveillance Reports;
- FoodNet Canada[clxxxiv] and CIPARS retail chicken surveillance data was used to inform development of Canadian Food Inspection Agency (CFIA) performance standards supporting policy on monitoring Salmonella and Campylobacter in poultry slaughter establishments;
- The NESP and FoodNet Canada contributed data and expertise to Health Canada's working group to update the "Policy on Listeria monocytogenes in Ready-to-Eat Foods". The Listeria policy (2023) is intended to assist in the application and verification of activities for Listeria monocytogenes in ready-to-eat foods to protect the health and safety of Canadians;
- The NESP, FoodNet Canada and Outbreak Summaries surveillance systems contributed data and expertise to Health Canada's Bureau of Microbial Hazards risk analysis on Shiga toxin-producing Escherichia coli (STEC) in various food commodities in Canada. The risk analysis work will inform risk management strategies to improve protection of the Canadian population from STEC infections and associated public health outcomes;
- FoodNet Canada disseminated 2022 (January – December) industry establishment reports of retail food sampling results on the pathogen levels found on retail products to industry to help inform interventions and monitor their effectiveness; and
- FoodNet Canada initiated retail sampling of raw stuffed frozen breaded chicken products to further contribute to the overall initiative to reduce Salmonella illnesses associated with poultry in Canada.

DID YOU KNOW?

PHAC now has an e-mail subscription service to Enteric Illness Outbreak Investigations – Public Health Notices.[clxxxv] Public Health Notices are issued to inform Canadians about outbreak investigations and offer advice on what people can do to protect their health.

PHAC launched a research study called Foodbook 2.0: Canadian Food Consumption Study.[clxxxvi] PHAC is inviting approximately 20,000 people across all provinces and territories to participate in this study and complete a survey which asks participants about the foods they eat, and the activities they do that may affect their health. The information from the Foodbook study will help with foodborne illness outbreak investigations and response in Canada. When a foodborne illness outbreak occurs, Foodbook data is compared to outbreak cases to help identify the source of an illness and will inform monitoring, burden of illness estimates, source attribution and risk assessments. This information can help us prevent more people in Canada from getting sick. Within the first three months of data collection, Foodbook 2.0 is meeting targets with respect to the number of surveys completed. Data collection is ongoing and is expected to be complete by the end of 2023. The data will be reported online once the study is complete.

Reducing the incidence of tuberculosis while addressing its impact

Tuberculosis (TB) is a social disease with a medical component that disproportionately impacts people experiencing vulnerability. TB is caused by a type of bacteria called mycobacterium and can spread from person to person through the air with prolonged contact. However, TB is preventable and curable with antibiotics, particularly if treated early or in the latent phase that is before people develop symptoms. Eliminating TB continues to be a priority for PHAC.

To support TB elimination efforts in Canada, PHAC conducts national monitoring on new and re-treated cases of active TB through the Canadian TB Reporting System and the Canadian TB Laboratory Surveillance System, to monitor national TB trends, including drug resistance patterns. In 2022–23, PHAC published: the Tuberculosis Surveillance in Canada: 2010–2020 Summary Report,[clxxxvii] which provides a descriptive epidemiological summary of active TB in Canada, the incidence of drug-resistant TB disease, and treatment outcomes; and the Tuberculosis in Canada: 2021 infographic,[clxxxviii] which presents highlights of TB trends in 2021. In addition, PHAC provided data on the rates of TB in Inuit Nunangat to the Inuit Tapiriit Kanatami (ITK), the national representational organization for Inuit in Canada and provided support to the Canadian Thoracic Society to publish the 8th edition of Canadian Tuberculosis Standards in March 2022.

PHAC continues to strengthen collaboration with provincial and territorial governments, other federal departments (e.g., Indigenous Services Canada; Immigration, Refugees and Citizenship Canada) and other organizations, to address the disparities among Indigenous populations and people born outside of Canada. PHAC recognizes that conditions of vulnerability among these populations are contributing to the disproportionate impact among these groups and that addressing the social determinants of health[30] is critical to reducing TB incidence and achieving TB elimination.

A 2022–23 evaluation of PHAC's TB activities found that PHAC has initiated a variety of useful small-scale TB initiatives in recent years to address the needs of at-risk populations. For example, they have helped increase TB awareness and testing among Indigenous populations and migrants in high-risk communities. Nonetheless, coordination, communication, and clarity of roles and responsibilities remain ongoing challenges, both internally and among external stakeholders, including on the international stage.

Pan-Canadian Health Data Strategy (PCHDS) and Point of Care Data on Medical Services

The Pan-Canadian Health Data Strategy (PCHDS) FPTI co-development process is completed and allowed jurisdictions to build consensus on a proposed long-term vision, principles, commitments, and actions for improving collection, access, sharing, use, and protection of health data. The draft PCHDS was focussed on four key elements: enhancing public trust and data literacy, clear and accountable pan-Canadian governance, equitable and effective data policies, and interoperable data standards and architectures.

On February 7, 2023, the Prime Minister announced new FPTI commitments as part of the Working together to improve health care for Canadians initiative.[clxxxix] This included a commitment to work collaboratively with PTs to modernize the health care system with standardized health data and digital tools.

Key elements of the draft PCHDS were captured in these commitments, including:

- collecting and securely sharing high-quality, comparable information needed to improve services to Canadians, including disaggregated data on new and existing key common health indicators with CIHI;
- adopting common interoperability standards both for technical exchange and content of data, including implementing Canada Health Infoway's Interoperability Roadmap;
- implementing aligned provincial and territorial policies and legislative frameworks to support secure patient access to health information and stewardship of health information to support the public good;

[30] The World Health Organization (WHO) defines social determinants of health as the conditions in which people are born, grow, live, work and age.

- promoting health information as a public good by working with FPT Health ministers to review and confirm overarching principles, based on the Health Data Charter (as proposed by the Expert Advisory Group), which would affirm Canadians' ability to access their health information and have it follow them across all points of care; and
- collecting and sharing public health data (e.g., vaccination data, testing data) with the Public Health Agency of Canada to support Canada's preparedness and response to public health events.

PHAC continues to work with Health Canada, provinces and territories, Indigenous partners, and health sector stakeholders to address data sharing barriers identified through the PCHDS co-development process.

PHAC is working with the Canadian Primary Care Sentinel Surveillance Network to establish a multi-year contract for the provision of de-identified primary care data for research and surveillance activities across PHAC program areas. Ethical, machine learning tools will be explored to support partners in potentially automating epidemiological disease-specific algorithms to support early detection and maximize data source extraction.

Sex and Gender-Based Analysis Plus

SGBA Plus analysis is an essential step in the guidance development process to ensure that potential indirect or unintentional negative impacts on stakeholders or others because of the public health advice provided are acknowledged when considering risk assessment and mitigation options for disease prevention and control in the community setting. For example, SGBA Plus consultation informed the technical guidance document **Mpox (monkeypox): Public Health Management of Cases and Contacts in Canada**[cxc] published in February 2023.

PHAC helped mitigate the unequal geographic impacts of the public health response by implementing community-based wastewater testing for SARS-CoV-2 in 15 NRI communities. Building early-warning testing capacity and capability in NRI communities contributes to more comprehensive surveillance information to protect those populations.

PHAC supported equitable access to high-quality diagnostic testing in NRI communities through training, quality oversight, and technology upgrades by leveraging programs established during Canada's COVID-19 response to include RSV and Influenza. PHAC collaborated with two First Nations communities to support the implementation of community-based testing for M. tuberculosis including risk assessment, biosafety guidance, and training. A pilot study was launched with another First Nations partner community to expand community-based testing to include rapid tests for HIV.

In support of Truth and Reconciliation Call to Action 20, PHAC continued to work with Indigenous Services Canada and Indigenous partners to support COVID-19 vaccine rollout in Indigenous communities that are culturally safe and appropriate by engaging through established tables, including the Indigenous COVID-19 Vaccine Planning Working Group and the COVID-19 Public Health Working Group on Remote and Isolated Communities, to support the incorporation of Indigenous perspectives and considerations into COVID-19 vaccine rollout in Indigenous communities. PHAC also hosted a FPTI and Industry Summit in August 2022 to provide a platform for Indigenous organizations to share their experiences and perspectives to help support and prioritize the vaccine rollout in Indigenous communities. The Summit also allowed for the exchange of information and best practices on vaccine rollout to help support the implementation of approaches that were culturally appropriate and tailored for Indigenous communities.

PHAC integrated age and sex in COVID-19 Vaccination Coverage Monitoring and made disaggregated data available to the public. Additionally, PHAC provided information on sociodemographic characteristics and vaccination status and attitudes by using surveys to complement provincial and territorial data. As such, in 2022, this included the implementation of a new Childhood COVID-19 Immunization Coverage Survey (CCICS)[cxci] and the publication of the results in January 2023, which included analyses of COVID-19 vaccine coverage among children by sociodemographic characteristics (e.g., sex, age group, ethnicity and Indigeneity, geography (rural/urban), and disability. Results from the childhood **National Immunization Coverage Survey (cNICS) 2021**[cxcii] were released on June 12, 2023. The survey collected information on COVID-19 vaccine coverage among 14- and 17-year-olds while further analysis is underway.

The fundamental goal of the Safe Voluntary Isolation Sites Program (SVISP) is to increase access and inclusion to the health system to improve health equity. As such, SVISP required monthly reporting from funding recipients regarding site usage and key user demographics. An SGBA Plus lens was applied to the collection of SVISP site user information. Over the 3 years, 21,370 individuals were supported at an SVISP site and identified themselves as follows:

- Member of a racialized community – 7%;
- First Nations, Métis, and Inuit – 32%;
- Under 40 years of age – 67%;
- Reported a household income of less than $50,000 – 84%;
- Resided in households with 3 or more individuals – 64%;
- Male - 55 percent; Female – 44 percent; non-cisgendered – 1%; and
- Temporary Foreign Workers – 2%.

The IPF consistently applied the principles of SGBA Plus by supporting evidence informed, equity focused and culturally appropriate safe vaccine confidence interventions across Canada. With a focus on underserved populations, IPF funding recipients developed and implemented both community-based and research projects designed to address the needs of priority populations including, but not limited to Indigenous Peoples; Black and racialized communities; ethnocultural, religious and linguistic minority groups including newcomers; members of the 2SLGBTQIA+ community; youth and children; older person; people who use drugs; people who are underhoused or houseless; and individuals with disabilities or other complex health needs. Whenever possible, the IPF program encouraged the use and collection of disaggregated administrative and performance data, and clear reporting principles.

In 2022, additional investment was committed to **nine existing IPF projects**[cxciii] to support their continued COVID-19 vaccination efforts:

- Leveraging Digital Tools to Increase COVID-19 Vaccine Adoption
- #ScienceUpFirst
- Bringing Vaccine Science to the Public
- Playing your CARDs to Improve the COVID-19 Vaccination Experience
- Kids Boost Immunity
- Community Vaccination Promotion - National Project (CVP National)
- Community Vaccination Promotion - Ontario (CVP-ON)
- Community Vaccination Promotion - Nova Scotia Project (CVP Nova Scotia)
- COVID-19 Vaccine Micro-Funding and Community of Practice for Frontline Organizations

PHAC also continues to include SGBA Plus factors in routine epidemiological products and the collection of data from various monitoring systems, such as COVID-19 monitoring (routine reports and publications), FluWatch and the Respiratory Virus Detection Surveillance System.

PHAC strengthened its monitoring activities to capture the realities of priority populations more accurately (e.g., Indigenous Peoples and 2SLGBTQIA+ Communities) and support healthcare providers as well as community-based organizations in the delivery of inclusive and responsive services during the 2022–23 period. For example:

- PHAC worked with representatives from each of the seven participating First Nations Health Services Organizations, Northern Inter-Tribal Health Authority, and Indigenous Services Canada's First Nations and Inuit Health Branch who reviewed draft manuscripts and provided final approval prior to the publication of the report **Summary findings from Tracks surveys implemented by First Nations in Saskatchewan and Alberta, Canada, 2018–2020**.[cxciv] This work was undertaken to ensure that findings from the surveys of determinants of HIV and Hepatitis C among Indigenous peoples in Canada were appropriately contextualized in a culturally relevant and safe manner and that potential implications resonated with community realities and priorities.
- For the gender identity measure, the Tracks surveys of determinants of HIV and Hepatitis C among Indigenous peoples in Canada used the Multidimensional Sex/Gender Measure to assess gender identity (i.e., a person's internal and individual experience of gender) and lived gender (i.e., the gender a person feels internally and expresses publicly in their daily life). As such, PHAC analyzed and interpreted the results taking into consideration the dimensions of sex/gender measured such as Indigenous and cultural identities, and the complexities of sex/gender identities and sexual orientation concepts to better understand sexual and gender diverse populations and the challenges they face.
- The HASS is currently undergoing review and renewal with the goal of better meeting evidence needs. Research and local public health monitoring data has revealed that racialized communities are disproportionately affected by HIV, yet low availability of race and/or ethnicity information collected through the HASS limits the ability to produce this evidence. From November 2022 to March 2023, and in accordance with Canada's Anti-Racism Strategy, a collaborative effort with community members led to the establishment of a Black Canadians' Expert Working Group to provide advice to contribute to the co-development and implementation of strategies to improve the completeness of the race and/or ethnicity variable. This work is intended to inform and support how provinces and territories collect this data, rebuild trust by demonstrating PHAC's commitment to pursuing the development of anti-racist and decolonized approaches, in partnership with PTs and community groups and make more complete data, available, which will in turn inform the development of better research evidence and more appropriately tailored prevention programs.

- Enhanced data collection on infectious and congenital syphilis through the Syphilis Outbreak Investigation Coordinating Committee aims to improve available information on SGBA Plus variables and better describe the syphilis epidemics in Canada to inform tailored public health interventions. In December 2022, PHAC published Canada's 2021 rates of Infectious Syphilis and Congenital Syphilis; data analysis[31] shows that the increasing rates of infectious syphilis in females aged 15 to 39 years have led to increased counts of congenital syphilis, while gay, bisexual, and other men who have sex with men continue to experience disproportionate rates of infectious syphilis.

United Nations' (UN) 2030 Agenda for Sustainable Development and the UN Sustainable Development Goals

PHAC's procurement of safe and effective therapeutics for the treatment of COVID-19 and COVID-19 vaccine rollout plans contribute to SDG 3: "Good Health and Well-Being", SDG 10: "Reduced Inequalities", SDG 5: "Gender Equality", and SDG 8: "Decent Work and Economic Growth". As Canada's COVID-19 vaccine rollout continues, Canada will continue to assess its domestic supply needs and share surplus vaccine doses. By primarily using the COVAX Dose Sharing mechanism, doses will be prioritized to regions of greatest need, while also ensuring efficient distribution and maximum impact.

PHAC has continued to ensure that the procurement of COVID-19 vaccines supports access to COVID-19 vaccines for all Canadians. PHAC has also continued to support global vaccine equity through the international donation of our surplus COVID-19 vaccines. In 2022–23, more than 10.8 million of the doses Canada donated to COVAX were delivered to designated countries, and 3 million doses were shared bilaterally. In total, over 28.8 million of Canada's surplus doses have been delivered to recipient countries. To date, 36 countries have received COVID-19 vaccine doses donated by Canada.

AMR is an increasing global public health concern that threatens the attainment of several of the United Nations 17 SDGs. Canada's AMR strategy relies on a One Health approach that recognizes the relationship between the health of humans, animals, and their shared ecosystem, and applies an equity lens that considers the unique needs of at-risk populations. Actions taken by the PHAC to address AMR have supported Canada's efforts to implement the 2030 Agenda through contributing to the SDGs listed above as well as by strengthening the means of implementation and revitalizing global partnership for sustainable development (Goal 17).

The Infectious Disease and Climate Change Program continued to deliver on Government of Canada commitments in the Pan-Canadian Framework on Clean Growth and Climate Change and the Government of Canada's Adaptation Action Plan, as part of the National Adaptation Strategy, by increasing capacity of public health professionals to respond to the rising demands posed by climate-driven infectious diseases. This includes providing them with the information they need to advise their patients and clients and enabling Canadians to have access to timely and accurate information and tools to better understand their risks and take measures to prevent infection and protect health.

[31] In 2021, six provinces and territories provided sexual orientation data: British Columbia (BC), Alberta (AB), Saskatchewan (SK), Ontario (ON), New Brunswick (NB), and the Yukon Territories (YT). These provinces and territories represented 69% of the Canadian population.

Innovation

HIV self-test (HIVST)

Canada endorsed the Global Health Sector Strategy on HIV, including global targets towards reducing the public health impacts of HIV/AIDS by 2030. The 95-95-95 targets state that by 2025: 95% of all people living with HIV know their status, 95% of those diagnosed receive antiretroviral treatment, and 95% of those on treatment achieve viral suppression. At the end of 2020 in Canada, an estimated 62,790 people were living with HIV. Among these, an estimated 90% were diagnosed (meaning 1 in 10 people living with HIV in Canada are unaware of their HIV status). Of those currently diagnosed, 87% were estimated to be on treatment and of those on treatment, 95% had a suppressed viral load. Achieving the individual targets in the continuum of care for people living with HIV is directly dependent on increased access to testing, and decreasing the number of individuals who are unaware of their HIV status.

In 2022–23, PHAC received $8 million to launch a proof-of-concept to purchase and distribute HIV self-test (HIVST) kits through community-based organizations as a means of increasing the number of people in Canada who could access testing. The approach built on the capacity of community-based organizations to reach key populations who encounter significant barriers to accessing testing and treatment.

Community-based organizations are particularly well positioned to reach key populations because of existing relationships with the populations they serve, allowing for a greater likelihood that people would have the necessary supports and linkages to care following the screening result. It is notable that many NRI communities, predominantly Indigenous communities, lack many of the ancillary services (confirmatory testing, reporting of diagnostic test results, etc.) needed to effectively participate in this HIV self-testing initiative.

In the period since the launch of the initiative, the availability of free HIVST kits has been met with a prominent level of satisfaction among key national stakeholders, community-based organizations, provincial and territorial partners, and individual test users. The initiative has demonstrated the ability to increase the offer of testing, including among those who are unaware of their status.

Furthermore, the HIVST initiative provides a solid foundation to expand services as new STI testing options enter the marketplace, supporting a more comprehensive approach to PHAC's mandate around infectious disease prevention and control.

The initiative has demonstrated the value of offering low-barrier access to testing to help identify the undiagnosed, with a reported 46% of respondents indicating that they had never been tested previously. In one survey of test users, 98% of participants reported being satisfied with the program while almost 50% of participants indicated that they had obtained additional kits to distribute among their social and sexual networks.

Over 250 participating organizations have developed a range of delivery models and support tools such as, online and mail delivery, creation of "medicine bundles" to create culturally appropriate resources for Indigenous populations, real time virtual support delivered by peers, facility, and event-based distribution, along with the secondary distribution. Print, digital and in-person training demonstrations of test kit usage has proven effective at increasing test uptake and usage with 96% of individual test users reporting an intention to use the kits in the future. The initiative has demonstrated an ability to offer a safe, effective, and stigma-free way to reach people who have traditionally faced systemic barriers to testing, particularly those who might be unaware of their HIV status. Community-based partners expressed a strong desire to receive continued support for this initiative, allowing for a greater window of opportunity to engage as many individuals as

possible, highlighting the need for stable and ongoing funding for the HIVST initiative that would allow for better project planning and implementation.

COVID-19 Activity Level Assessments
PHAC implemented national COVID-19 activity level assessments in 2021, as a standardized approach describing the overall activity and trajectory of COVID-19 across Canada. Given changes to monitoring strategies and data availability over time, particularly with the emergence of the Omicron variant, assessments were revised to be reflective of the current context.

COVID-19 Integrated Monitoring and Planning
PHAC established the internal COVID-19 Surveillance Coordination Committee (CSCC) in spring 2022 to facilitate and guide a planning process to coordinate monitoring activities while building collaborative working relationships within and across PHAC and Health Canada. The CSCC process identified the complexity of COVID-19 monitoring and was key in identifying commonalities, challenges and opportunities moving forward. Due to its success, the approach used is now being considered for further integration across monitoring activities for other respiratory viruses.

Wastewater surveillance
PHAC expanded wastewater surveillance to include three additional viruses – Influenza A and B, RSV A and B, and mpox virus. Wastewater data has contributed to forecasting models for seasonal flu and RSV that are calibrated and ready to forecast the 2023–24 season. PHAC carried out pilot projects for airport-based wastewater surveillance and found it was an important indicator for emerging variants entering Canada by a period of one to six weeks.

By leveraging innovative technologies and approaches including wastewater surveillance and Whole Genome Sequencing (WGS), PHAC is better positioned to understand the transmission and evolution of the SARS-CoV-2 virus across Canada and remain vigilant to waning immunity and variants of concern.

Genomic sequencing
PHAC continued to collaborate with provincial and territorial partners on COVID-19 genome sequencing and reporting for the Canadian Public Health Laboratory Network (CPHLN) and the COVID-19 border testing program. PHAC harnessed WGS techniques and equipment for additional surveillance of public health threats including poliovirus, E. coli, Salmonella, and sexually transmitted infections. WGS implementation in these areas enhanced public health intelligence for decision making through improved surveillance, diagnostic detection and analysis, and determination of outbreak clusters.

Data Services
PHAC has adopted a new and innovative approach comprised of building multi-disciplinary teams to increase Agency-wide data capacity. Through these teams, the Agency is exploring the use of new technologies, tools and approaches to collect, share, and use data to prevent diseases, injuries and threats to public health in Canada. This structure provides public health experts with support in areas such as data storage, data analysis, and data visualization, ensuring that insights can be drawn from data and shared to support the health of Canadians. For example, digital tools such as the COVID 19 epidemiology update,[cxcv] and the Health of People in Canada Dashboard[cxcvi] have been developed to inform Canadians on the latest public health issues.

Behavioural Science

PHAC's Behavioural Science Office (BeSciO), in partnership with the Privy Council Office and various program areas throughout PHAC, conducted behavioural science research in several priority pandemic response areas and foundational public health issues to improve the health and well-being of Canadians. This innovative research generated evidence and insights to improve the effectiveness of PHAC policies, programs, and communications. In 2022–23 PHAC's behavioural science research contributed to:

- Improving public health measures and communication on mask wearing. Research findings identified effective messaging methods to encourage strategic mask wearing to reduce the spread of respiratory illnesses as Canadians moved beyond the pandemic.
- Effective public health measures and communications for the COVID-19 response and management. Timely insights generated from the second phase of the COVID-19 Snapshot Monitoring Survey (COSMO Canada)—which gathered evidence on knowledge, attitudes, and behaviours related to public health measures, testing and vaccination—were used to inform Canada's pandemic response.
- The recovery of routine childhood immunization programs following the pandemic. Research helped to better understand how the pandemic affected Canadian parents' vaccine confidence and the barriers to routine childhood immunization. Insights from this research, which included clarifying misconceptions and offering convenient access to immunization clinics, will inform programs and communications to improve catch-up rates.
- Strengthening insights on how to combat misinformation among young adults in Canada. Research helped to better understand how young adults perceive and interact with online and offline health information. It shed light on how young adults make sense of public health information and provided a deeper understanding of youth's experiences, beliefs, and feelings about health information.
- Improving antimicrobial stewardship in long-term care facilities. Research was conducted on factors that influence antibiotic prescribing decisions in long-term care facilities and the impacts on their residents and staff. This research has informed further field work to explore innovative solutions and improve care of residents in long-term care homes.
- Understanding the mental health literacy of Canadians through research on the predictors, barriers, and the relationship between mental health literacy and positive mental health. Insights from this research showed that elevated levels of distress and low levels of well-being are mostly attributed to structural barriers to mental health care (e.g., not having a family doctor, and/or not being able to access a physician if needed).

Centre for Corporate Surveillance Coordination
A dedicated Centre for Corporate Surveillance Coordination is now in place to coordinate monitoring activities across the Agency and facilitate horizontal awareness and oversight across Branches involved in monitoring.
Key initiatives include:

- The development of distinct governance structures, with members comprised of those with subject matter expertise, to appropriately review and challenge projects and initiatives. This initiative strengthens scientific scrutiny in the decision-making process to apply world-renowned research and expertise to facilitate national approaches to public health policy. This sustainable governance structure supports collaboration and ties into existing corporate decision-making governance structures to positively impact evidence-informed public health policy and decision-making.
- Establishment of the Strategic Surveillance Management Committee (SSMC) meets regularly and brings together senior management and monitoring experts from across the Agency. With the support of a dedicated secretariat, the SSMC enables robust and cohesive oversight, evidence-informed decision-making, and strategic forward planning to support surveillance modernization efforts to enhance Canada's public health programs.
- The development of a performance monitoring framework that integrates management commitments made across branches, tracks progress, and ensures the achievement of intended outcomes will strength risk assessment capabilities in key program areas to better inform public health action and improve the health and well-being of Canadians.
- The implementation of a portfolio management approach to the activities and commitments outlined in the integrated Management Response Action Plan Plus Action Plan, to monitor and report on overall performance as well as risks and mitigation strategies for Agency-wide monitoring. Key achievements included:
  - Development and utilization of unique key performance indicators to measure and report overall progress in the Action Plan.
  - Implementation of a monthly Risk Register to identify risks and mitigation strategies and integrate risk management practices.
  - Usage of reporting tools such as an interactive performance dashboard, quarterly progress highlight reports, and standardized templates and processes to support reporting to senior management.
  - Utilization of formal governance structure and processes for sustained integrated oversight and timely decision-making.
  - Implementation of a portfolio management approach to improve coordination, project management, and decision-making, thus aiding in risk management and oversight for Agency-wide monitoring commitments.

Improving risk assessment

The pandemic provided important lessons, including the importance of undertaking comprehensive assessment of emerging threats and risks. PHAC introduced innovative methods to engage widely when carrying out public health risk assessment and other scientific analyses. PHAC began drawing input from multiple external subject matter experts to inform the characterization of risk during assessments, following a concept called "participatory risk analysis". This new method brings diverse disciplines and their resources together by incorporating stakeholder engagement and participatory data collection methods into conventional risk analysis in order to estimate risk more rapidly and cheaply and to achieve greater impact. This method was tested with the use of a One Health approach – recognizing the interconnectivity between human, animal and environmental health – to develop a Rapid Risk Assessment and Pandemic Risk Scenario Analysis on Avian Influenza A(H5N1) Clade 2.3.4.4b. The analyses were conducted with a Steering Committee and Technical Team that included representation from 23 federal and provincial organizations and Non-Governmental Organizations responsible for human, animal, and environment health, veterinary and wildlife associations, and academia. This approach to wide consultation in risk analyses is contributing to an integrated comprehensive public health risk assessment products.

Results achieved

The following table shows, for Infectious Disease Prevention and Control, the results achieved, the performance indicators, the targets, and the target dates for 2022–23, and the actual results for the three most recent fiscal years for which actual results are available.

Departmental result	Performance indicators	Target	Date to achieve target	2020–21 actual result	2021–22 actual result	2022–23 actual result
Infectious diseases are prevented and controlled	% of 2 year old children who have received all recommended vaccinations	At least 95%	Dec. 31, 2025	68% (2019)[32]	71.4% (2021)	71.4% (2021)[33]
	Proportion of national vaccination coverage goals met for children by 2 years of age[34]	Exactly 7[35]	Dec. 31, 2025	0/7 (2019)[36]	0/7 (2021)	0/7 (2021)[37]
	Rate per 100,000 of new diagnosed cases of Human Immunodeficiency Virus (HIV)[38]	At most 0.6 (cases per 100,000 population)	Dec. 31, 2030	4.3 Cases per 100,000 (2020)	3.8 Cases per 100,000 (2021)	3.8 Cases per 100,000 (2021)[39]
	Rate of a key antimicrobial resistant infection identified among people in hospitals	At most 0.7 (per 1,000 patient admissions for MRSA Blood Stream Infections)[40,41]	Mar. 31, 2025	0.86 Cases per 1,000 patient admissions (2020)	0.84 Cases per 1,000 admissions (2021)	0.84 Cases per 1,000 admissions (2021)[42]

32 The results from 2019 are the most recent and will be used until new data is available. Data is collected biannually.

33 The results from 2021 are the most recent and will be used until new data is available. Data is collected biannually.

34 The National Immunization Strategy has set a vaccination coverage goal of 95% for each of seven childhood vaccines.

35 In 2019–20, the number of national vaccination coverage goals changed from 12 to 7.

36 The results from 2019 are the most recent and will be used until new data is available. Data is collected biannually.

37 The results from 2021 are the most recent and will be used until new data is available. Data is collected biannually.

38 In Canada, health and health care are the responsibility of provincial/territorial governments, and other partners, including different levels of government, hospitals, and non-government organizations. As a result, the lowering of this rate is a shared, common goal among all stakeholders.

39 The 2021–22 actual results are the most recent publicly available results. Actual results for 2022–23 will be published later this year.

40 A target of "at most 0.7 per 1,000 patient admissions" is meant to be an upper limit target based on observed fluctuations in the rate over time.

41 As of 2018, data for this indicator will no longer be used due to a change in methodology. Based on World Health Organization/Global Antimicrobial Resistance Surveillance System requirements, in 2018, the Canadian Nosocomial Infection Surveillance Program (CNISP), has started to collect data only on methicillin-resistant Staphylococcus aureus (MRSA) bloodstream infections and not on all (total) MRSA infections (as reported above), which included blood and non-blood infections such as skin/soft tissue, respiratory, etc. For 2020–21 the target will be at most 0.7 cases per 1,000 patient admissions.

42 Rate information is obtained from CNISP, which collects data related to healthcare-associated infections including antimicrobial resistant organisms from Canadian acute-care hospitals. There were no 2022–23 results available. The results from 2020 were the most recent available results in 2022–23 and will be used until new data for 2022–23 is made available.

Departmental result	Performance indicators	Target	Date to achieve target	2020–21 actual result	2021–22 actual result	2022–23 actual result
Infectious disease outbreaks and threats are prepared for and responded to effectively	% of foodborne illness outbreaks responded to within 24 hours of notification	At least 90%	Mar. 31, 2023	93%	97%	94%
	% of new pathogens of international concern that Canada has the capacity to accurately test for	At least 90%	Mar. 31, 2023	100% (2020)	100% (2021)	100% (2022)

Financial, human resources and performance information for PHAC's program inventory is available on GC InfoBase.[cxcvii]

Budgetary financial resources (dollars)

The following table shows, for Infectious Disease Prevention and Control, budgetary spending for 2022–23, as well as actual spending for that year.

2022–23 Main Estimates	2022–23 planned spending	2022–23 total authorities available for use	2022–23 actual spending (authorities used)	2022–23 difference (actual spending minus planned spending)
7,439,195,456	7,439,195,456	10,430,086,037	4,514,633,198	-2,924,562,258

Spending is lower than planned because the procurement of COVID-19 vaccines was less than initially expected. However, this reduction in spending is balanced out by higher expenditures for the acquisition of COVID-19 therapeutics.

Financial, human resources and performance information for PHAC's program inventory is available on GC InfoBase.[cxcviii]

Human resources (full-time equivalents)

The following table shows, in full-time equivalents, the human resources the department needed to fulfill this core responsibility for 2022–23.

2022–23 planned full-time equivalents	2022–23 actual full-time equivalents	2022–23 difference (actual full-time equivalents minus planned full-time equivalents)
2,491	1,948	-543

The number of actual full-time equivalents are less than planned due to fewer employees than initially projected for surge capacity to sustain the various activities related to the Agency's COVID-19 response. This decrease is slightly offset with an increase in full-time equivalents for the implementation of the surveillance and risk assessment initiative.

Financial, human resources and performance information for PHAC's program inventory is available on GC InfoBase.[cxcix]

3. HEALTH SECURITY

DESCRIPTION

Prepare for and respond to public health events and emergencies (e.g., floods, forest fires, and outbreaks such as COVID-19); address health and safety risks associated with the use of pathogens and toxins; and address travel-related public health risks.

Result 3.1: Public Health events and emergencies are prepared for and responded to effectively

Strengthening PHAC's surge support role

In 2022–23, PHAC continued to maintain a robust supply of critical medical assets including personal protective equipment (PPE), medical equipment, medical countermeasures, and other supplies to support ongoing COVID-19 response efforts and the resurgence resulting from the Omicron variant. The **National Emergency Strategic Stockpile (NESS)**[cc] deployed over 152 million units of medical assets, (e.g., PPE, biomedical equipment, and vaccine ancillary supplies) to provinces and territories to mitigate the health impacts of public health events within Canada and responded to 120 requests for assistance from provinces and territories seeking surge medical supplies to support response efforts in their jurisdictions, including the COVID-19 pandemic. PHAC made targeted investments in critical medical assets to diversify stockpile holdings and secure access to supply to mitigate the risks of public health threats by engaging with provinces and territories and to develop an allocation model to proactively distribute vaccines and therapeutics to jurisdictions to support effective and timely management of the mpox outbreak within Canada.

NESS continued to make incremental modernization improvements to operations, such as the development of a modern warehouse management system to track and manage NESS assets through their lifecycle, and a NESS portal to facilitate information sharing on NESS assets, including upcoming deployments of supplies with provinces, territories, and other government departments. As identified in the Auditor General report on **Pandemic Preparedness, Surveillance, and Border Control Measures**,[cci] NESS initiated work on the development of a comprehensive management plan for the NESS, as recommended by the Auditor General in their **report on Securing Personal Protective Equipment and Medical**

Devices.[ccii] This included engagement of provinces and territories and a review of lessons learned from the COVID-19 pandemic and other public health emergency response efforts to help inform the plan.

Outside of the NESS, PHAC strengthened its surge support role by training staff in emergency management fundamentals through several online self-directed courses and live virtual training sessions to a wide range of emergency management fundamentals such as outbreak investigation, contact tracing and interviewing.

Strengthening enhanced emergency management operations for a sustained COVID-19 response

PHAC continued to coordinate the Health Portfolio's response to the resurgence of COVID-19, including the Omicron variant, and work with FPTI partners to provide guidance, coordination, and surge supports to provinces and territories. PHAC strengthened monitoring capacity to detect new COVID-19 variants and inform public health decisions. In addition, PHAC contributed to national situational awareness of the pandemic and pandemic response measures through internal mechanisms including, the COVID-19 Incident Management System (IMS) which throughout its longest activation in history (36 months) that ended March 2023, significantly contributed to supporting the provinces and territories with surge capacity. The system completed 128 of the 130 Requests for Assistance (RFAs) from provinces and territories. Of the 128 RFAs completed, PHAC approved 65 expert mobilizations, including 51 epidemiologists, 11 infection prevention and control (IPC) specialists, and 3 data entry personnel. Sixty-four requests for isolation were supported through PHAC's SVISP.

Overall, PHAC has played a critical role in securing over 4.1 billion units of medical supplies and PPE to provinces and territories, ranging from N95 respirators to syringes. Through strong, long-standing relationships with provinces and territories, health care organizations, and academic institutions, PHAC has been able to quickly ramp up public health monitoring to collect information on COVID-19 spread and severity. This information has been crucial in informing evidence-based modelling and federal public health responses to the pandemic, especially as new variants of concern emerged.

Also in 2022–23, PHAC increased its incorporation and consideration of climate into its core processes and procedures outlining climate risks as they pertain to the impact of cyclical events (wildfires, floods, hurricanes, earthquakes) on the public health of Canadians. This includes liaising more closely with Public Safety Canada's Government Operations Centre (GOC) on forecasting, modelling, reporting and advanced preparedness for cyclical seasons. The joint work on the National Risk Profile is evidence of this ongoing collaboration with the GOC and other federal partners.

PHAC undertook an extensive review of the Health Portfolio Emergency Response Plan. Significant consultations were undertaken with partners across the Health Portfolio, resulting in an updated plan coming into force in fall 2023 following testing of several emergency events and exercises. In addition, PHAC continued to enhance its emergency management planning functions and testing to increase preparedness for future events. In 2022–23, PHAC undertook a variety of exercises and workshops, including a tabletop exercise on the Sudan Virus Disease, the Canadian Polio Outbreak Simulation Exercise (CANPOSE), Exercise Maritime Integration, Exercise Coastal Response, and a FPTI COVID-19 Vaccine Rollout Planning Workshop.

In 2022–23, PHAC continued to invest in emergency management operations and in the development of sustainable support structures to enable a scalable, timely, and coordinated response to the COVID-19 pandemic and future emergency events with health consequences. This included strengthening the Health Portfolio Operations Centre surge capacity to mobilize

resources for emergency response efforts. This was done by developing a roster of staff in critical Incident Management Structure (IMS) positions, who are trained and available to support response to all-hazard emergencies, as well as developing a robust mechanism to capture lessons learned and implement corrective actions to address areas requiring improvement. PHAC developed robust methodology for conducting After-Action Reviews that aligns with domestic and international standards adopted by interdepartmental and global partners, and conducted three concurrent After-Action Reviews for recent Health Portfolio responses, including the COVID-19 IMS focused review, mpox outbreak and Sudan Virus Disease outbreak. As part of these efforts, over 30 engagement sessions were held with emergency management and public health professionals within the Health Portfolio.

Improving the Global Public Health Intelligence Network (GPHIN)

PHAC took concrete actions in 2022–23 to improve the Global Public Health Intelligence Network (GPHIN). These actions were included in a Management Response Action Plan approved by the President of PHAC in December 2022 to address all the recommendations made through independent reviews of the program. These actions included: developing Vision, Mission, and mandate statements; creating a signal-sharing mechanism between GPHIN, other PHAC programs and CIRA; and developing outreach and engagement strategies to strengthen purposeful collaborations with provincial and territorial governments, other federal departments, and international partners.

In addition, PHAC initiated the GPHIN Information Technology Platform Modernization, developed the GPHIN Next Generation Project Concept Case, and developed a GPHIN Workforce Development and Training Strategy. These efforts were done in conjunction with establishing new mechanisms to share GPHIN signals effectively with other Agency monitoring programs and with the CIRA to ensure appropriate follow-through, including verification and risk assessment as appropriate. PHAC has acted to address early signal detection by ensuring signals about potential public health threats detected by GPHIN are captured in regular Agency threat assessment reports and briefings to senior management, established an Internal GPHIN Integration Working Group which connects GPHIN to monitoring programs.

On the staffing, training, and recruiting front, PHAC created modules for learning pathways drafted for GPHIN staff, subscribers, risk assessment, and program areas, identified common training and work exchange opportunities with WHO, and continues to collaborate with corporate functional areas to complete prototyping to support option selection and analysis and to satisfy the technical requirements of the Enterprise Architecture Review Board.

CIRA took key steps to address recommendations from the GPHIN Review Panel and Office of the Auditor General of Canada Report 8-Pandemic Preparedness, Surveillance, and Border Measures.[cciii] These included further enhancing PHAC's risk assessment capabilities by providing a process, methods and governance for infectious disease rapid risk assessments (RRAs). As a result of collaborative efforts across the public health and science community throughout the Agency, the process, methods and governance have been tested and improved via RRAs that have been performed on acute hepatitis of unknown origin in children; SARS-CoV variants; avian influenza; monkeypox; and Sudan virus disease.

The goal is to ensure that the Agency's public health intelligence is provided to those who need it, in the formats and timeframe in which they need it, to support public health action to improve the health of Canadians through the development of the Monitoring Knowledge Translation Standard. To this end, PHAC established a Public Health Security and Intelligence (PHSI) team to support its leadership in ensuring they had appropriate access to public health intelligence.

The PHSI team developed relationships with national security partners to facilitate sharing of public health intelligence with PHAC, which in turn allowed PHAC to provide public health expertise to those partners.

Providing onsite expert advice and support to public health partners to combat disease outbreaks and emergencies

In 2022–23, PHAC provided ongoing expert advice to support public health partners through the placement of 27 Public Health Officers in provincial and territorial ministries of health, coroner and medical examiner offices, and local public health departments across the country to support Canada's COVID-19 response efforts, substance-related harms responses, and to work on other important public health files. This included extending public health officers (epidemiologists and nurses) in provinces and territories working on joint COVID-19 response efforts, including monitoring, outbreak response, vaccine rollout, and providing evidence to inform public health actions. In the final year of their placement, COVID-19 Public Health Officers assisted jurisdictions in integrating COVID-19-related work into the routine public health practice of the jurisdiction. In addition, PHAC extended public health officers addressing joint federal, provincial, and territorial responses to the concurrent overdose crisis, which has worsened during the pandemic. Substance-related Harms Public Health Officers broadened monitoring efforts and program capacity in FPTI jurisdictions to understand substance-related harms beyond opioid misuse, and contributed to stigma reduction efforts towards people who use drugs in many jurisdictions.

Finally, PHAC developed and delivered applied public health training (e.g., outbreak investigation, development, and evaluation of monitoring systems, contact tracing, interviewing skills) and field readiness training (e.g., cultural competencies, leadership, scientific communication) to public health officers, fellows of the Canadian Field Epidemiology Program, and FPTI partners. PHAC provided a series of training sessions in applied public health and interventional epidemiology to strengthen the ability of its employees and other public health professionals in Canada to investigate and respond to public health threats. Training was focused on outbreak investigations, monitoring system design and evaluation, the use of statistical software to analyse and visualise epidemiological data, and much more. Cumulatively 335 learners attended live virtual sessions which aimed to build the technical skills required to respond to ongoing and emerging public health issues. Furthermore, 278 learners completed online training introducing them to public health fundamentals, contact tracing, and interviewing. To receive a certificate of completion for the courses, learners must achieve a score of at least 80% in the final knowledge assessment.

Result 3.2: Public health risks associated with the use of pathogens and toxins are reduced

Advancing global health priorities in biosafety and biosecurity capacity

In Canada, the global life science research landscape is expanding, bringing with it increasingly complex risks**.** Safe and effective laboratories and responsible conduct in life science research are key to protecting the health, safety and security of Canadians and Canada's interests worldwide. PHAC played a leadership role globally by working to build international capacity in biosafety and biosecurity through sharing of tools, processes, and expertise with regulatory authorities in other countries. Doing so reduces the risk of global incidents that could affect Canada domestically, such as the need to manage an infectious disease outbreak.

In 2022–23, PHAC's Centre for Biosecurity, in its capacity as a designated WHO Collaborating Centre for Biosafety and Biosecurity, supported the WHO through several projects and initiatives, including capacity development, sharing of best practices, and expert review and advice related to biosafety, biosecurity, and **dual-use research of concern**.[cciv]

DID YOU KNOW?

Designation as a WHO Collaborating Centre for Biosafety and Biosecurity provides Canada with an opportunity to leverage our experience and expertise to advance global health security. Our contributions advance the Government of Canada's commitments to the Global Health Security Agenda, specifically the Biosafety and Biosecurity Action Package and the Global Partnership Against the Spread of Weapons and Materials of mass Destruction.

With support from the **Weapons Threat Reduction Program of Global Affairs Canada**,[ccv] PHAC served as the secretariat to the **International Experts Group of Biosafety and Biosecurity Regulators (IEGBBR)**[ccvi] and co-chaired the steering committee. By undertaking this role, PHAC supported the critical IEGBBR work, which in the 2022–23 fiscal year, focussed on providing biosafety and biosecurity expertise directly to developing countries and the development of reference tools and information for the international community.

The IEGBBR also contributed a review of the regulatory oversight in the IEGBBR member countries on how non-governmental, academic, and private institutions are licenced, regulated, and commissioned, with a focus on maximum containment laboratories. This work assisted PHAC with identifying and addressing gaps and risks associated with the operation of private Containment Level 4 laboratories in Canada.

DID YOU KNOW?

On October 2nd, 2022, PHAC's Centre for Biosecurity was recognized by the WHO on the **Global Polio Eradication Initiative website**[ccvii] highlighting Canada's achievement as the first Member State to have one of its facilities move to the second stage of WHO's Containment Certification Scheme.

In 2022–23, PHAC also delivered on Canada's international polio commitments, as Canada's National Authority for Containment of poliovirus. Through PHAC's stewardship, the WHO awarded Canada two Interim Certificates of Containment (ICC) to certify poliovirus essential facilities (PEFs) handling and storing polioviruses. In collaboration with provincial and municipal partners, PHAC conducted the CANPOSE – a polio outbreak simulation exercise to meet Canada's commitments under the Global Polio Eradication Initiative. Approximately 40 participants contributed to the tabletop discussion which engaged Canadian laboratories, public health partners and stakeholder to practice the coordination and response to a laboratory incident involving poliovirus.

Modernizing regulatory oversight

In the context of a rapidly expanding and advancing domestic life sciences sector that has emerged in response to the COVID-19 pandemic, PHAC advanced work to strengthen and modernize regulatory oversight of Canadian facilities undertaking controlled activities under the *Human Pathogens and Toxins Act (HPTA)*.[ccviii]

In 2022–23, PHAC met its annual inspection targets for all licence types, undertaking a total of 147 inspections through a combination of on-site and virtual approaches, including two onsite pre-licensing inspections for facilities pursuing a risk group 4 licence. Notably, PHAC enhanced its oversight of risk group (RG) 2 licences, inspecting 12% (118) – doubling the historical average target

of 6% and marking a significant stride towards achieving our long-term goal of inspecting all RG2 licences on a five-year cycle (20% annually). Canadian facilities continued to demonstrate high rates of compliance and a commitment to improving biosafety and biosecurity with 99% of required corrective actions due for resolution in 2022–23 successfully responded to within the established timelines.

PHAC also took steps to advance proposed amendments to the **Human Pathogens and Toxin Regulations (HPTR)**[ccix] which aim to provide increased regulatory flexibility, and to improve biosafety and biosecurity oversight in response to the expanding biomanufacturing sector in Canada – as outlined in **PHAC's Forward Regulatory Plan 2022–2024**.[ccx] This work was advanced through the development of supporting policy papers; a draft TBS Triage Report; and targeted thematic engagement with the **Advisory Committee on Human Pathogens and Toxins**.[ccxi]

The Laboratory Incident Notification Canada program monitored laboratory exposure incidents in Canada to inform guidelines to improve biosafety and biosecurity in Canada. The 2021 annual report, **Surveillance of laboratory exposures to human pathogens and toxins**[ccxii] was published in the October 2022 issue of the PHAC CCDR. Pathogen and toxin risk assessments continued to inform the Centre for Biosecurity's regulatory program, policy development, and facilitate stakeholder compliance. In 2022–23, a total of 114 risk assessments (52 pathogen and 62 toxin) were completed.

Life science research is a target for adversaries who may want to use it for malicious purposes. It is critically important that Canadian facilities understand the threat landscape of the work they are undertaking – particularly those working with high-risk pathogens and toxins or conducting sensitive research. Throughout 2022–23, PHAC continued to collaborate with partner departments to promote and advance research security by:

- Supporting **Safeguarding Science**[ccxiii] - a Public Safety Canada led initiative that delivers interactive workshops to academic and scientific institutions across Canada. Eight workshops were completed with the intent of raising awareness within Canada's scientific and academic communities of the risks of chemical, biological, radiological, and nuclear proliferation, the potential for the proliferation of dual-use technology, cyber security, and best practices in maintaining a security-conscious research organization.
- Collaborating with ISED on the implementation of the **National Security Guidelines for Research Partnerships**[ccxiv] to ensure consistency in approach, reduce redundancy between programs, and reduce burden on stakeholders.
- Continuing to review Biosecurity Plans in accordance with our annual risk-based selection process to verify that organizations have developed appropriate risk mitigation measures. In total, PHAC conducted 24 reviews in 2022–23, prioritizing those of organizations applying for a licence to work with high-risk pathogens known as security sensitive biological agents.

- Canada's Biomanufacturing and Life Sciences Strategy resulted in a surge of new constructions or upgrades to containment facilities (i.e., laboratories) working with high-risk human pathogens and toxins in Canada. These facilities are required to be inspected by PHAC before a licence is issued (in accordance with HPTA 18 (1))[ccxv]. This entails significant engagement and multiple touchpoints with the inspection team over a 3-to-5-year period, depending on the size and complexity of the facility. As of March 31, 2023, PHAC has been engaged by or conducted preliminary design reviews with twenty-three containment level (CL) 3 facilities and two new CL2 Large Scale Production facilities, including a pre-licensing compliance promotion inspection.

Promoting compliance and increasing openness and transparency

Evidence shows that compliance is higher when regulated parties understand why it matters and how to achieve it. PHAC continuously develops and disseminates scientific, technical, and regulatory information to stakeholders to support them in identifying and mitigating biosafety and biosecurity risks and fulfilling their obligations under the HPTA and the HPTR. The Canadian Biosafety Standard (CBS) outlines the physical containment, operational practice, and performance and verification testing requirements for facilities licenced under the HPTA. This includes requirements governing how regulated materials are to be handled or stored in Canada. The 3rd edition of the CBS was published in November 2022 to clarify the biosafety and biosecurity intent of all requirements, and that they be based on be risk, evidence, and performance.

Other resources that were updated or published include:

- Severe acute respiratory syndrome coronavirus 2 biosafety advisory[ccxvi]
- Monkeypox virus biosafety advisory[ccxvii]
- Licensing requirements for work with monkeypox virus[ccxviii]
- Biosafety guidelines for laboratories handling specimens from patients under investigation for Ebola disease[ccxix]
- Biosafety program management guidelines[ccxx]
- Risk Group 3 Fungi directive[ccxxi]
- 3 Pathogen Safety Data Sheets[ccxxii]

Training was provided to stakeholders through five live webinars. In addition, training materials for stakeholders were updated and released in the PHAC Training Portal[ccxxiii] including five e-learning courses, and several posters. In addition, in support of the Government of Canada's transparency and openness objectives and to further strengthen trust in regulatory decisions, PHAC has begun posting a quarterly summary of laboratory biosafety and biosecurity inspection results. The first data set was published on the Open Data portal[ccxxiv] in August 2022.

Result 3.3: Public health risks associated with travel are reduced

Identifying and mitigating travel-related public health risks

To protect public health by taking comprehensive measures at Canada's borders to limit the introduction and spread of communicable diseases, PHAC maintains a border presence at land, air, and marine ports of entry (POE). In 2022–23, PHAC maintained a physical presence at 35 priority POE until the border measures were lifted on October 1, 2022, and maintains an ongoing virtual presence nationally at all POEs. To deliver its mandate and protect the health of Canadians, PHAC worked closely with other federal departments, including the Canada Border Services Agency (CBSA), the Royal

Canadian Mounted Police, Transport Canada, and Immigration, Refugees and Citizenship Canada. PHAC's border presence supported Government of Canada immigration priorities, providing traveller screening and quarantine services for individuals seeking asylum, making a refugee claim (e.g., Afghanistan), and individuals fleeing the war in Ukraine. PHAC also supported an initiative through the Hospital for Sick Children (Sick Kids) to safely transport Ukrainian children that required cancer treatment.

DID YOU KNOW?

Up to March 24, 2023, when Canada and the United States announced changes to the Safe Third Country Agreement, Roxham Road in Quebec was a major crossing point for migrants. Among the services provided at this crossing point, PHAC ensured a 24/7 on-site presence by deploying Quarantine Officers and Screening Officers to Roxham Road; setting up a COVID-19 testing centre; and providing decision support tools for frontline public health officers. From April 2022 to March 2023, more than 44,000 migrants crossed the border via Roxham Road, from 86 different countries. Following the implementation of the Safe Third Country Agreement in March 2023, PHAC demobilized its physical presence at this crossing.

In 2022–23 PHAC also managed border-related requirements to respond to the evolving epidemiological situation, such as COVID-specific designated quarantine facilities (DQF), as required. To support these efforts, PHAC managed 17 DQFs, and had access to rooms in one provincial site, with a total room capacity of 1,465 rooms for travellers in 14 cities across Canada, up to the elimination of border measures on October 1, 2022. Despite the demobilization of its DQF, PHAC remained vigilant to respond to any new public health threat. For example, PHAC implemented border measures that supported health screening at airports for Ebola in fall 2022.

PHAC regions also worked with provinces on border and travel health. For example, PHAC Atlantic Region re-established the Atlantic Air Travel Health Security Working Group with federal, provincial and industry partners in Nova Scotia and Newfoundland. In 2022–23, PHAC broadly collaborated with both domestic and international governments and industry stakeholders to successfully restart the international cruise ship industry in Canada. In the summer of 2022, Arctic Cruise Ship season resumed. PHAC worked with Transport Canada, the Canadian Coast Guard, CBSA, industry and territorial representatives from Northwest Territories and Nunavut to plan for a safe cruise season, applying the national guidance in a Northern context. By September 30, 2022, Canada had welcomed 1.3 million cruise travellers and 700,000 crew into Canada with no vessels requiring assistance managing COVID-19 cases on board. Public health inspections were completed on 95 cruise ships.

To achieve these goals, PHAC continued to train a skilled and agile cadre of designated officers. PHAC provides staff with the required training to obtain their designation (e.g., Quarantine Officer, Screening Officer, Compliance and Enforcement, etc.), as well as cross training staff to support various roles and ongoing learning opportunities. Training and development support was provided to designated officers including 84 live training sessions, 14 new e-learning courses specific to PHAC Officers, and 17 other related learning products.

To help prevent the spread of COVID-19 while continuing the movement of essential workers and goods across the border, PHAC developed and enforced Emergency Orders-in-Council (OIC) under the *Quarantine Act*. This included screening, performing health assessments, verifying OIC requirements at points of entry or remotely with the Central Notification System, testing travellers, and maintaining a post border compliance and enforcement process. PHAC continued to adapt its compliance and enforcement model to effectively promote, verify,

and enforce traveller compliance with federal requirements related to quarantine and other border measures. These actions resulted in better monitoring of the spread of COVID-19 in Canada.

Metrics related to theses measures include:

- 3,420,164 emails to travellers between April 2022 and September 30th, 2022, promoting compliance with the various border measures in place.
- 300,502 compliance promotion robocalls between April 2022 and the time all border measures were eliminated on September 30th, 2022.
- Calling 1,923,385 fully vaccinated travellers selected for mandatory random testing between April 2022 and September 30th, 2022, including calls to 42,352 fully vaccinated travellers who tested positive on-arrival.

PHAC estimates that 93% of travellers complied with their testing obligations. Travellers suspected of non-compliance with their obligations were initially referred to local police to conduct follow up activities. This continued until July 2022, in which PHAC referred 48,898 travellers to law enforcement, with 1,561 being urgent follow up requests and another 13,126 being high priority follow up requests. PHAC received 4,429 reports based on these follow up requests. The Government of Canada lifted all border measures effective October 1, 2022.

In conjunction with these measures, PHAC has a legal requirement to provide support to prosecutors and law enforcement related to contested contraventions tickets through court appearances, preparation of evidence, and responding to disclosure requests. If the evidence sought from PHAC is not provided in a timely fashion, contraventions and prosecutions could be put at risk, if exceeding mandated time limitations or in the case of insufficient or incomplete documentation. Thousands of tickets are being disputed; PHAC is required to provide evidence for each case. To maintain PHAC's credibility as an enforcement authority, ensure timely and adequate support is provided to prosecutors and law enforcement, and ensure effective enforcement of the *Quarantine Act* and the Emergency Orders made pursuant to this Act, PHAC entered into a Memorandum of Understanding with Public Prosecution Service Canada (PPSC) whereby PPSC agreed to undertake the prosecution services related to offences under the *Quarantine Act*. PHAC continues to provide disclosure to those who contested their tickets.

PHAC collaborated closely with federal partners and provincial/territorial public health authorities to obtain Cabinet approval of 5 Emergency OIC under Canada's *Quarantine Act* between April 2022 and March 2023. In support of the legislated mandate under the *Quarantine Act*, PHAC continued to review the response to COVID-19 to take stock of lessons learned and to better inform preparations and responses to future health emergencies.

PHAC continued its Compassionate Program to allow entry and/or limited release from quarantine to foreign travellers who were otherwise prohibited entry to Canada. From April 2022 until September 30th, 2022, when border measures were lifted, the Compassionate Program received 4,879 applications for compassionate exemption entry to Canada. 2,478 of these applications were approved, allowing these travellers to enter Canada to attend to their personal difficult circumstances.

To inform travellers to Canada of legal requirements under the COVID-19 emergency border measures, the Government of Canada provided handouts on arrival at various ports of entry. Handouts were translated into multiple languages and made available digitally to improve accessibility and reach, and to reduce reliance on paper. In addition, digital screens and posters were developed and displayed at ports of entry. Information was also published on Canada.ca, shared on social media, available through the

COVID-19 toll-free line, and sent by push notifications to those who subscribed to the service. PHAC also communicated through the Registration of Canadians Abroad, in partnership with Global Affairs Canada, and travel and tourism industry partners.

One of PHAC's key priorities is to notify Canadians of travel-related public health risks so they can understand how to protect themselves and their loved ones while travelling abroad. This is achieved through various products and approaches, including posting travel health advice on travel.gc.ca, which outlines potential health risks to Canadian travellers and strategies to reduce the risk of exposure or illness. In 2022–23, PHAC posted 11 new travel health notices, nine new outbreak monitoring alerts and over 78 updates to travel health products. Travel health content was also shared on PHAC's social media platforms. Furthermore, in collaboration with the Committee to Advise on Tropical Medicine and Travel,[ccxxv] PHAC developed and updated several statements that were disseminated to the medical community caring for travellers.

PHAC also manages travel-related public health risks on passenger conveyances and ancillary services. This includes conducting potable water, food, and sanitation inspections of public conveyances and their ancillary services, focusing efforts on areas of greatest risk to public health. PHAC Environmental Health Officers responsible for the identification and mitigation of risks associated with the transmission of communicable diseases on conveyances and their ancillary services conducted 460 potable water, food, and sanitation inspections, with ninety-seven percent (97%) of inspections completed meeting public health requirements. Inspections and outreach opportunities were leveraged to improve industry knowledge of public health requirements and to strengthen key industry relationships that improve public health surge response times during public health events.

Sex and Gender-based Analysis Plus

SGBA Plus considerations continue to be integrated into PHAC's work to advance health security in Canada. These considerations continue to inform PHAC's work to support medical supply readiness in Canada, including for the procurement of medical supplies and equipment that consider end-user preferences and needs. For example, the NESS procures products in assorted sizes and considers the specific needs of certain populations, including pregnant people and those with underlying health conditions, when selecting certain medical countermeasures (e.g., vaccines and therapeutics).

Additionally, PHAC is offering epidemiologists and data analysts training on a range of the cultural competency factors needed to work with people of diverse sexual orientation and gender identities, explore issues with 2SLGBTQIA+ data, and apply these learnings in professional settings. In 2022–23, a series of training modules aiming to build cultural competence and health equity competencies were offered to public health professionals. Training topics included: Applied Learning on 2SLGBTQIA+ Epidemiology, Building Allyship: Thoughtful Land Acknowledgements, and Indigenous Peoples, Reconciliation and Anti-Bias Training. In total, the sessions welcomed 135 participants.

Pregnant persons who drink alcohol can give birth to children with Fetal Alcohol Spectrum Disorders (FASD), which may result in adverse health outcomes including stunted growth, and learning disabilities, among other serious health issues. PHAC supported provincial colleagues from Prince Edward Island in their efforts to strengthen FASD prevention. PHAC led an in-person forum in November 2022 where leading FASD prevention experts, 30 government, community, clinical, and academic stakeholders participated to renew PEI's efforts to enhance awareness on the SGBA Plus informed approaches to FASD prevention.

From January through March 2023, PHAC organized and delivered a series of SGBA Plus training events for Border and Travel Health (BTH) Program staff. These training events were tailored to the context of the BTH Program; specifically, the training was informed by the experiences of front-line Agency staff in managing instances of disparate impacts of COVID-19 border measures on people living in situations of vulnerability, and the training included case studies focused on border issues. A total of 52 BTH Program staff registered and received this training.

PHAC continued to ensure the routine application of an SGBA Plus lens in the development of scientific, technical, and regulatory information targeted for use by laboratory personnel working with human pathogens and toxins. For instance, as part of the pathogen and toxin risk assessment process, certain subgroups are routinely considered (e.g., pregnant people, the elderly) to determine whether biological susceptibility or sex-specific differences might exist. This information is then captured in resources that describe the hazardous properties of a human pathogen and/or provide guidance on how to work safely with these agents in a laboratory setting, so that those at increased risk may take necessary precautions.

United Nations' (UN) 2030 Agenda for Sustainable Development and the UN Sustainable Development Goals

Relative to SDG 3: "Good Health and Well-Being", PHAC works with OGDs to respond to public health events and emergencies. This includes the placement of public health officers in northern, rural, and remote jurisdictions to support TB monitoring and control. Their efforts are also directed towards emerging priorities, as required. During 2022–23, this included work to support syphilis as an emerging local priority. Initial investigations of syphilis epidemiology were conducted, including characterization of populations affected, to better target public health interventions including testing and screening programs.

Placement of public health officers in Health organizations across Canada supported the monitoring of substance-related harms and helped generate high quality data. This increase in capacity helped strengthen partnerships between all levels of government, academia, and other health organizations to promote effective public health action, and contribute to stigma reduction efforts towards people who use drugs.

To advance Global Target 12.5 to reduce waste generation through prevention, reduction, recycling, and reuse, PHAC's NESS continues to operationalize a lifecycle management approach to optimize asset use to reduce waste and maximize recycling where possible. One element of the lifecycle approach is to work with provinces and territories to transfer assets for use in the healthcare system prior to expiry. PHAC takes a lifecycle materiel management approach that considers other divestment pathways to optimize asset use prior to expiry, such as through the donation, transfer and/or sale of assets before conversion to waste. For example, the Government of Canada sent 2.8M pairs of nitrile gloves to support the Government of Cuba's emergency response to the multiple oil tank explosions in Matanzas, Cuba. PHAC also continues to explore innovative recycling methods for reducing and managing waste.

PHAC has a goal to reduce the disproportionate impact of public health emergencies on equity-deserving populations and support more inclusive emergency preparedness and response. Towards this goal, PHAC held a virtual panel discussion to highlight Atlantic successes and promising practices in embedding equity in EPR. More than 150 people participated in the 'Community Resiliency and Public Health Emergencies in Atlantic Canada: Towards Equitable Approaches' event and a summary infographic was created and distributed to participants and within PHAC.

To support SDG 13: "Climate Action", PHAC developed an Atlantic Scan of Climate Change and Public Health (August 2022) that helped to demonstrate the broad nature of the Climate Change file by identifying stakeholders within and outside the federal government (e.g., Provincial governments, academics, NGOs, etc.). It also highlighted the resources of data and education available to stakeholders. Climate change is a new area for public health, and staff and stakeholders need to be aware of non-public health stakeholders and be familiar with the concepts, terminology, and measures used to understand and address climate change through a public health lens; otherwise, action on climate change through a public health lens could be misguided, inefficient, or even repetitive.

In 2022–23, to ensure that passenger transportation operators are compliant with ***Potable Water Potable Water on Board Trains, Vessels, Aircraft and Buses Regulations***[ccxxvi] and the water on their transport is clean and safe for travelling public consumption, PHAC conducted 202 inspections and 388 water sampling activities on passenger conveyances and their ancillary services, pursuant to the *Potable Water on Board Trains, Vessels, Aircraft and Buses Regulations*. PHAC recommended corrective measures for 70 critical violations in order to protect the public against the potential presence of disease-causing microorganisms. This work supports SDG 6: "Clean Water and Sanitation".

PHAC's work in biosecurity includes providing other countries with technical expertise and tools to enhance their national biosafety and biosecurity oversight frameworks and help them meet commitments under the International Health Regulations. This advances the SDG's intention to strengthen the capacity of all countries for early warning, risk reduction, and management of national and global health risks.

As the secretariat to the IEGBBR and co-chair of the steering committee, PHAC participated in providing biosafety and biosecurity expertise directly to developing countries, and contributed to the development of reference tools and information for the international community. This included the publication of a new resource map entitled '**Resources for the Development or Strengthening of Biosafety and Biosecurity Oversight**'[ccxxvii] and can serve as a foundation of knowledge for beneficiaries.

To engage the international community on the outcomes of Canada's efforts to support biosafety and biosecurity, PHAC submitted two informational working papers in advance of the **Biological Weapons Convention – Ninth Review Conference**,[ccxxviii] which are publicly available on the United Nations website entitled: "An Analytical Approach: Biosafety and Biosecurity Oversight Framework" and "Laboratory Incidents Notification Canada (LINC) Program Overview." The former describes the Analytical Approach capacity building tool developed by PHAC to support countries to build capacity in biosafety and biosecurity program development and regulatory oversight, while the latter provides an overview of Canada's LINC program which provides insights into causes of laboratory safety incidents as well as limitations and potential areas of improvement for oversight.

Innovation

As part of continuous improvement efforts, PHAC continues to explore innovative collaborations and approaches to optimize life cycle materiel management as part of its NESS program. In support of its health security mandate, PHAC undertook an agile development approach to support the implementation of modern IT systems, including a Warehouse Management System and a NESS Portal to facilitate lifecycle management and information sharing.

To better understand the public health needs of newcomer families seeking support, and to ensure PHAC-funded programming is culturally competent, PHAC in the Atlantic region initiated the "Newcomer Public Health Project" to undertake participatory action research and the

development of a toolkit of resources for CAPC and CPNP partners. This project included training sessions related to the migration contexts of refugees and immigrants (e.g., cultural norms related to parenting, childrearing, and family dynamics in Muslim faith communities), resulting in the community partners being better equipped to support the complex needs of newcomer families.

The impact of climate change on the health and well-being of Canadians is one of the greatest public health challenges. On October 25, 2022, the Chief Public Health Officer released her Annual Report on the State of Public Health in Canada, entitled **Mobilizing Public Health Action on Climate Change in Canada**.[ccxxix] The report demonstrated that public health is well-positioned to be a key collaborator, convenor, and leader on climate action by promoting health and health equity, and informing communities and decision-makers of the health impacts of climate change. This report is a roadmap for public health systems to navigate climate-health action. It offers tangible ideas and explores opportunities to build on and expand current public health functions, to support a broad range of actions to prevent health impacts and inequities due to climate change, effectively respond to unavoidable impacts, and promote health in a changing climate. The CPHO report called for putting health at the heart of climate action, and to promote efforts that will lead to significant and almost immediate benefits on our health and the health of our environment. It also highlights the importance of acting together to meet these challenges.

DID YOU KNOW?

On December 2022, the Canadian Institutes of Health Research (CIHR) launched a funding opportunity to catalyze research aligned with the climate change priorities identified in the 2022 CPHO Annual Report and the companion document, Generating Knowledge to Inform Public Health Action on Climate Change in Canada, which was developed by PHAC's Office of the Chief Science Officer with the input of many public health partners and stakeholders. The CIHR funding aims to strengthen links between researchers and knowledge users, including communities, and facilitate responsive and evidence-informed decision-making on key public health and climate change issues. The CIHR funding decision was announced in June 2023, funding 15 research projects from coast to coast and catalyzing research to mobilize public health action on climate change in Canada.

The Public Health Agency of Canada has produced a bilingual lexicon on climate change and public health, in close collaboration with the Translation Bureau and external organizations with expertise and perspectives on the subject. The glossary aims to facilitate the mobilization of knowledge, communication, and collaboration between stakeholders whether they are from public health, public or private sectors or from all spheres of society.

- This tool is available on the Language Portal of Canada and contains approximately 400 terms with their designation in French and English, definitions, explanatory notes, synonyms, and examples of use.
- Health equity and Indigenous health lenses were put forward in the production of the lexicon to represent communities disproportionately affected by the consequences of climate change.
- This lexicon project is part of the overall objective of strengthening the voice of science in Canada's two official languages, through strengthening our culture of bilingualism by promoting equity and diversity.

In 2022–23, PHAC established a pilot wastewater surveillance project at Toronto Pearson International Airport to monitor and assess COVID-19 variants coming into Canada. Samples were sequenced to screen for emerging variants of concern or variants of interest, and sequenced data was compared with global and national clinical and wastewater data.

Results achieved

The following table shows, for Health Security, the results achieved, the performance indicators, the targets, and the target dates for 2022–23, and the actual results for the three most recent fiscal years for which actual results are available.

Departmental result	Performance indicators	Target	Date to achieve target	2020–21 actual result	2021–22 actual result	2022–23 actual result
Public health events and emergencies are prepared for and responded to effectively	Level of Canada's readiness to respond to public health events and emergencies as assessed independently by the World Health Organization	At least 4 (Rating out of 5)	Jun. 30, 2023	4.5	4.5	4.5
	% of provincial and territorial requests for assistance (for deployment of Agency staff) responded to within negotiated timelines	Exactly 100%	Mar. 31, 2023	100%	100%	100%
	% of provincial and territorial requests for assistance (for the provision of supplies) responded to within negotiated timelines	Exactly 100%	Mar. 31, 2023	100%	100%	100%
	% of provincial and territorial requests for assistance (for inter-jurisdictional mutual aid for health care professionals) responded to within negotiated timelines	Exactly 100%	Mar. 31, 2023	100%	100%	100%
Public health risks associated with the use of pathogens and toxins are reduced	% of compliance issues in Canadian laboratories successfully responded to within established timelines	At least 85%	Mar. 31, 2023	100%	98%	99%
Public health risks associated with travel are reduced	Level of Canada's capacity[43] for effective public health response at designated points of entry into Canada	At least 4 (Rating out of 5)	Jun. 30, 2023	5	5	5
	% of inspected passenger transportation operators that meet public health requirements	At least 95%	Mar. 31, 2023	100%	98%	97%

Financial, human resources and performance information for PHAC's program inventory is available on GC InfoBase.[ccxxx]

[43] Capacity is defined by the WHO's International Health Regulations (2005) Monitoring and Evaluation Framework, Joint External Evaluation Tool.

Budgetary financial resources (dollars)

The following table shows, for Health Security, budgetary spending for 2022–23, as well as actual spending for that year.

2022–23 Main Estimates	2022–23 planned spending	2022–23 total authorities available for use	2022–23 actual spending (authorities used)	2022–23 difference (actual spending minus planned spending)
432,712,693	432,712,693	703,828,280	624,448,818	191,736,125

Actual spending is higher than planned primarily due to funding received during the fiscal year to bolster inventories of medical countermeasures for the mpox response and to support COVID-19 testing at Canada's borders. This increase is partially offset by less than anticipated spending for medical supplies and equipment, including personal protective equipment.

Financial, human resources and performance information for PHAC's program inventory is available on GC InfoBase.[ccxxxi]

Human resources (full-time equivalents)

The following table shows, in full-time equivalents, the human resources the department needed to fulfill this core responsibility for 2022–23.

2022–23 planned full-time equivalents	2022–23 actual full-time equivalents	2022–23 difference (actual full-time equivalents minus planned full-time equivalents)
949	1,282	333

The actual full-time equivalents surpass the originally planned number mainly because of the extra funding received during the fiscal year. This additional funding was utilized to increase the personnel necessary to support border testing and travel measures.

Financial, human resources and performance information for PHAC's program inventory is available on GC InfoBase.[ccxxxii]

INTERNAL SERVICES

DESCRIPTION

Internal services are those groups of related activities and resources that the federal government considers to be services in support of programs and/or required to meet corporate obligations of an organization. Internal services refers to the activities and resources of the 10 distinct service categories that support program delivery in the organization, regardless of the internal services delivery model in a department. The 10 service categories are:

- Management and Oversight Services
- Communications Services
- Legal Services
- Human Resources Management Services
- Financial Management Services
- Information Management Services
- Information Technology Services
- Real Property Management Services
- Materiel Management Services
- Acquisition Management Services

Policy development

Working with domestic and international stakeholders, PHAC continued to apply a strategic policy lens to the development of public health programs, policies, and activities to advance public health objectives. Policy directions were informed by the latest science, ensuring evidence-based decision-making in conjunction with meaningful stakeholder engagement, coordination and collaboration.

PHAC worked with its federal partners to ensure that the Agency's organizational structure could effectively manage COVID-19 in the short term, while ensuring readiness to respond to emerging issues. In addition, PHAC supported the development and implementation of multiple horizontal policy initiatives, including the tracking of PHAC-led mandate letter commitments for the Minister of Health and the Minister of Mental Health and Addictions and Associate Minister of Health.

Throughout the pandemic, PHAC played a key role in advancing shared public health priorities by leading engagement and facilitating collaboration with FPT, Indigenous leaders, public health stakeholders, and inter-sectoral partners. This included informing evidence-based decision making and strengthening public health guidance and policy (e.g., Pan-Canadian Public Health Network).

Supporting the COVID-19 Response

In 2022–23, PHAC continued to implement, monitor, and maintain security policies, programs, practices, and controls to ensure the protection of the Agency's people, information, assets, and facilities in support of the trusted delivery of Government of Canada programs and services. PHAC's Corporate Services Branch (CSB) contributed to the Agency's mandated activities in relation to the COVID-19 response through the administration of security screening services in support of human resource staffing strategies. In addition, CSB implemented greater rigour to its security controls and continued implementation of the Departmental Security Plan priorities, along with regular monitoring and reporting practices, that are aligned with the new organizational structure. Finally, CSB delivered a revised framework for Facilities' Security Risk Assessments that incorporated a contingency plan for emergency processes.

During COVID-19, PHAC saw significant program growth and reorganization, which included the establishment of new branches, expansion of existing program areas, and the adoption of new mandates and roles. CSB supported this by ensuring several staffing programs and best practices were maintained or launched. CSB's innovative staffing strategies included:

- supporting Government of Canada-wide and internal HR inventories applying innovative and creative marketing and outreach for hard-to-hire positions;
- engaging with central agencies and partner organizations on Interchange Canada assignments;
- maintaining a dedicated HR service delivery team; and
- using innovative technologies to support staffing (such as the use of Vidcruiter, VidTracking, VidTesting, and VidReferencing).

PHAC implemented a suite of specialized supports for employees experiencing sustained operational stress resulting from their role supporting Canada's public health response to the pandemic. This included customized mental health training, leadership coaching, change management, team building support, proactive outreach from a mental health professional, embedded support for employees at ports of entry, and Decompression Program training. The Clerk of the Privy Council highlighted this innovative work in the Twenty-Ninth Annual Report on the Public Service of Canada.[ccxxxiii]

Empowering Canadians to make informed decisions and better understand public health issues

The Agency continued to provide persons in Canada with inclusive, timely, and evidence-based information needed to make informed decisions and better understand public health issues.

Response to infectious disease outbreaks and HPOC activations

The Agency managed the communications and public education activities related to multiple, overlapping, infectious disease outbreaks while continuing to manage the COVID-19 response. This included activations for COVID-19, Sudan virus disease, and mpox, as well as monitoring and preparing for potential outbreaks (e.g., RSV, influenza, polio, measles, H5N1, Marburg) This included:

- Developing communications plans and products to anticipate and address various potential scenarios.
- Participating in stakeholders' meetings and including stakeholder feedback into communications products and approaches.
- Informing the public in a timely manner through various platforms, including traditional and social media, and updated web content, with the latest information and science.

- Media engagement on public health issues included, but is not limited to:
  - responding to over 1300 media requests for COVID-19, 171 for mpox, and 31 for RSV; and;
  - holding 14 press conferences on COVID-19, 3 on mpox, and 1 on RSV.

The Agency prepared pressers/technical briefs: 14 for COVID-19, 3 for mpox, and 1 for RSV. According to NewsDesk, there were 3,029 articles during 2022–23 that mention the Chief Public Health Officer or Deputy Chief Public Health Officer as well as COVID-19, mpox, or RSV.

Public Health Measures

PHAC's Public Health Measures educational campaign aimed to increase awareness and reduce the risks of severe outcomes from respiratory viruses such as COVID-19, RSV, and the flu. As part of the campaign, PHAC helped persons in Canada learn more about how to protect themselves and their loved ones.

A total of six sub-campaigns were launched at various times in 2022–23. The campaigns were social and digital, and aimed at the general population with a focus on key priority populations. It included 209 total ads in 12 formats on nine different platforms:

- Spring outbreak (April 21-May 22): 64M impressions, 50k clicks.
- Always-on search engine marketing (May 12-March 31): 28M impressions, 4.2M clicks.
- Seasonal Thanksgiving celebration (Oct 3–10): 38M impressions, 24k completed video views, 33k clicks.
- Find Your Rhythm (Nov 14-Dec 8): 69M impressions, 7M completed video views, 27k clicks.
- Safe holiday season celebrations (Dec 12-Jan 3): 41M impressions, 5.2M completed video views, 33k clicks.
- Sick of being sick - respiratory illnesses (March 7–31): 136M impressions, 9.6M completed video views, 104k clicks.

Seasonal Flu Campaign

The Agency's advertising campaign prioritized key populations and people in close contact with these populations at a greater risk. The ads aimed to educate why persons are at higher risk for complications from the flu and to encourage audiences to get a flu shot. The ads were on social media, digital, and out-of-home platforms. This campaign was also supported by organic social media (including Instagram and Facebook posts/reels), digital content and outreach efforts from November 2022 to mid-January 2023, including a communications toolkit to support healthcare professionals, given their critical role as knowledge mobilizers to advance awareness among persons living in Canada.

Substance Use Awareness and Harm Reduction Campaign

The "Know More" opioids awareness program for youth was an experiential marketing (XM) activity comprised of events for youth (ages 14 to 19) aimed to reduce the stigma surrounding people using substances (including opioids). Events aimed to build awareness, education, drive behaviour change, and support for persons with lived/living experience of substance use. This 2023 awareness program (pilot) was an updated version that had previously been delivered in-person.

"Ease the Burden": Men in Trades

Partnering with unions and the Saint John Ambulance, the "Ease the Burden" public education marketing campaign was developed with the aim of reducing substance use, stigma, and harm reduction for men in the trade industry. The campaign leveraged media (videos, out-of-home, digital billboards, promotional stickers) based on the media consumption habits of the priority population.

Dementia Campaign
The Agency launched two phases of this advertising campaign in 2022–23:

- The fall campaign focused on reducing stigma and how to best support and interact with people living with dementia. The digital ads generated 140,586 visits to Canada.ca/ dementia pages (an average of 4,016 daily visits; 1.6 times more than last year's 2,441 average daily visits).
- The winter campaign focused on educating persons in Canada about the factors associated with developing a higher risk of dementia and the link between a healthy body and a healthy brain. A new series of ads were developed with a focus on high blood pressure and physical activity. The ads generated 362,578 visits to Canada.ca/ dementia pages (an average of 5.332 daily visits; 2.2 times more than last year's 2,441 average daily visits).

To complement advertising, the Agency also launched a public relations campaign with two national spokespersons, Jay Ingram and Martin Carli, as well as a digital influencer campaign with six niche influencers. The Agency produced two testimonial videos with persons living with dementia.

AIDS 2022, the 24th International AIDS Conference in Montreal
The Agency played a crucial role in the lead-up to the conference and during the event. From January to July 2022, the Agency developed strategic communications plans, a program of communication activities, monthly briefing notes for the President and Minister's office briefings and other communications products.

This included four news releases, multiple key messages, Q&As, social media content, and three videos (one featuring Canada's Prime Minister).

The Agency created a Communications sub-group of the Interdepartmental Working Group to ensure a coordinated whole-of-government approach. This group enabled a unified approach on Canada's commitment to the domestic and global HIV response through collaborative communications tactics, a cross-promotion, and engagement with OGDs to increase reach of communications.

Syphilis Advertising Campaign
Digital advertisements on Facebook and Instagram ran in both February and March, targeting persons living in Canada aged 18–40 who were interested in getting pregnant. The advertising objective was to increase awareness of congenital syphilis, specifically on the importance of getting tested, signs and symptoms to look out for, and treatment options available.

Ads prioritized provinces and territories with higher rates of persons with infectious syphilis including AB, SK, MB, BC, ON, NT, and NU.

Providing timely, trusted, and evidence-based information

PHAC's BeSciO conducted innovative research in several priority public health areas such as: AMR, mental health and well-being, public trust and misinformation, routine childhood vaccinations, and the impact of climate change on infectious diseases and mental health. This research, along with BeSciO's expansion of behavioural science capacity at the Agency and in Government of Canada communities, has helped to inform and improve PHAC's programming, and supports improving public health outcomes for Canadians.

BeSciO's capacity and community building initiatives included:

- Launching PHAC's Behavioural Science Community of Practice in November 2022 to promote and nurture the application of behavioural sciences as a cost-effective policy instrument for improving public health outcomes.
- Distributing monthly newsletters and behavioural science updates to share insights with PHAC and Health Canada employees.

- Delivering several behavioural science training sessions to groups across PHAC and Health Canada to build behavioural science awareness, knowledge, and capacity.
- Establishing PHAC's Behavioural Science Sounding Board in October 2022 to inform the strategic direction of initiatives and their alignment with PHAC's mandate and mission.

The Surveillance Knowledge Mobilization Framework (SKMF) 2022, formerly the Surveillance Knowledge Translation Standard), was launched. The SKMF 2022 and associated toolkit provide steps for the planning, implementation, and evaluation of a comprehensive knowledge mobilization plan, where knowledge users are engaged throughout the research process.

This work contributes to building PHAC's internal capacity related to knowledge mobilization, fostering a culture of evidence-informed policy, and enhancing the positive impact that PHAC's surveillance research can have in informing public health action and improving the health and well-being of people in Canada.

DID YOU KNOW?

The aim of high-quality knowledge mobilization is to effectively share evidence to inform action, whether it is building awareness, informing research and surveillance, or facilitating change in practice, policy, or behaviour. It is about getting the right evidence to the right people in the right format at the right time. The goals of knowledge mobilization at the Agency are to provide more effective public health interventions and products, strengthen the public health system, and improve the health of people in Canada.

PHAC explored and adopted approaches to support capacity building of knowledge mobilization skills to increase the use of various forms of evidence to inform public health actions. This included the launch of the Surveillance Knowledge Mobilization Framework, ongoing knowledge mobilization expert support to program areas across the Agency on knowledge mobilization planning, and the use of various innovative methods such as storytelling and data visualization. These efforts ensure final products (e.g., reports, infographics, briefs) are tailored with the right information, developed in the right format, and delivered at the right time.

The **COVID-19 virtual library of health data and evidence**[ccxxxiv] was created to provide centralized access to a searchable and expandable collection of links to knowledge products, data, and evidence about impact of COVID-19. Since its launch in December 2021, the Virtual Library received over 7,900 visits from more than 6,200 visitors and work continued to maintain and expand the holdings in the Virtual Library.

Developed to address knowledge and data gaps highlighted during COVID-19, the Virtual Library offers a secure and trusted data-focused platform to support the dissemination of Government of Canada knowledge to stakeholders of all levels, including the public. The Virtual Library also supports the Open Data and Open Government initiatives.

In June 2022, PHAC established the Knowledge Translation Community of Practice (KTCoP), a network of PHAC employees who engage in knowledge mobilization as part of their duties. The KTCoP provides the space for its members to come together for collaboration, peer to peer learning, networking, and the sharing of resources and lessons learned.

The KTCoP educates, supports, and advocates for knowledge mobilization across the Agency. Through cultivating a culture to incorporate knowledge mobilization into priorities and initiatives, this enhances the overall relevancy

and usefulness of knowledge and research to positively impact the policy development and program delivery which will benefit the health and well-being of people in Canada.

Champion implementation of the Ministers' global health priorities and support the advancement of Health Portfolio's domestic priorities through engagement on the international stage

Health Portfolio representatives continue to participate on the Intergovernmental Negotiating Body to reflect Canadian priorities in the development of a new international pandemic instrument. In support of developing Canada's positions, the Health Portfolio hosted a partner and stakeholder engagement pandemic instrument forum in March 2023. A key message coming out of the discussions was to ensure that equity is a primary consideration, including ensuring equitable access to pandemic response products and services.

In 2022–23, PHAC, along with Health Portfolio partners and other departments, continued to support international efforts to help Canadians and people around the world access health interventions to fight COVID-19, and future pandemics. For example, at the G7 Health Ministers Meeting in Berlin, the Minister of Health highlighted Canada's commitment to Access to COVID-19 Tools (ACT-A) Accelerator and COVAX, along with the importance of vaccine confidence, to support the safety and security of Canadians. Canada also adopted the G7 Pact for Pandemic Readiness, in recognition that solving a global problem requires a global solution, and this includes advancing collaboration with international counterparts based on our shared values.

At the G20 Health Ministers meeting, Canada joined other Member States in recognizing the key role played by the G20 in establishing the Pandemic Fund, aimed at enhancing emergency response capacity in other countries.

Canada was a key player in the global mental health space to address the mental health crisis exacerbated by the pandemic and to demonstrate leadership for equitable and accessible solutions for a stronger future. For instance, at the 2022 Pan American Sanitary Conference, Canada emphasized that poor mental health and illness disproportionately impact populations living in the most vulnerable situations, and those facing systemic and structural inequalities.

Canada raised awareness of the intersectoral nature of mental health and substance through Ministerial participation at AIDS2022, and the Global Mental Health Summit.

Additionally, Canada continued to champion mental health within Asia-Pacific Economic Cooperation (APEC) fora, including through an International Health Grant to the APEC Digital Hub for Mental Health, an initiative whose work includes collaborating with individuals with lived and living experience to develop best practices in advancing mental health and well-being in the Asia-Pacific region.

Canada's first year during its current term on the WHO Executive Board (EB) 2022–2025 was key in advancing global health governance objectives progress on health equity and the determinants of health. In addition, mobilizing global action to prevent, prepare for, and respond to health emergencies was advanced through the EB, and, through Canada's seat on the Standing Committee on Health Emergency Prevention, Preparedness and Response. Canada continued to advocate for an open and transparent WHO while reinforcing the importance of strong governance by Member States. The Health Portfolio developed Canada's negotiating mandate and is leading negotiations of amendments to the International Health Regulations, a legally binding global mechanism to help respond to emergencies. The Health Portfolio also stationed two Health Counsellors in the Canadian missions in Washington, D.C., and Geneva. The Washington, DC Counsellor advanced key outcomes on substance use to share best practices and lessons learned on the opioid crisis.

The Counsellor based in Geneva provided valuable work in the review of WHO financing, modernization of the International Health Regulations (2005) and the draft International Pandemic Instrument.

Modernizing the workplace to enable a safe work environment and productive workforce with access to modern tools and facilities

In 2022–23, PHAC continued to provide modern, flexible, and accessible office accommodations to support the delivery of the Agency's program activities while adhering to public health guidelines, during the time of the pandemic and for the future workplace. Customized security awareness information, sessions, and tools were delivered to ensure the integrity and security of the Agency's people, information, and assets in the new hybrid work environment.

The implementation of a new NESS warehouse included office space that reflects the Government of Canada workplace standards which helps in supporting the delivery of program activities.

Developing and implementing the Detect-Understand-Act Action Plan (DUA AP)

PHAC established a framework to monitor and internally report on the implementation of Agency-wide commitments related to surveillance and risk assessment. This builds off prior experience tracking progress against Agency commitments in response to audits and evaluations. This approach is aligned with existing governance mechanisms and makes efficient use of existing financial reporting systems and approaches. In addition, surveillance programs from across PHAC collaborated in the development of a multi-year Surveillance Strategic Plan to help advance the DUA AP as well as broader Agency objectives.

Implementing the PHAC Open Science Action Plan

PHAC partnered with the National Research Council of Canada (the lead of the Federal Science Library Network)[ccxxxv] in developing the Federal Open Science Repository of Canada (FOSRC), for launch in 2023. The Repository will make all scientific publications and products, produced or supported by PHAC, findable and freely accessible to the scientific community and the Canadian public.

In collaboration with CSB, and in consultation with other science-based departments and agencies, the Office of the Chief Science Officer has reviewed the PHAC Guide to Career Progression for research scientists to incorporate Open Science goals, ensuring that PHAC science is inclusive and accessible to all persons living in Canada from idea to results.

The PHAC Library, through the Federal Science Library Network, has negotiated with several scientific publishers to enable PHAC authors in making their publications fully Open Access to all audiences, including those without scientific journal subscriptions. In addition, the Office of the Chief Science Officer piloted a dedicated fund in 2022–23 to support PHAC authors and programs to make their work Open Access upon publication, so that students, researchers and interested persons in Canada can immediately find and read the published research.

An Open Science Steering Committee was established to provide strategic direction on Open Science performance indicators and allow the Agency to measure its progress toward science performance goals.

Adopting the use of modern data infrastructure to support Agency-wide data analysis, operations and interoperability

PHAC has significantly improved its ability to collect, assimilate, and manage data by making significant investments or developing technology including:

- Investing $2.1 million in new cloud capabilities to expand operations using a multi-cloud platform strategy to support the Agency in managing its evolving data holdings.
- Developed the Safe Inputs tool to improve the security of incoming and outgoing data, particularly for PDFs and Excel spreadsheets. This innovation ensures that PHAC can extract raw data from a web browser without the risk of infection from malware-infected files.
- Launched the Data Catalogue to improve the Agency's ability to share and provide users with additional metadata. This enhances their ability to access up-to-date data to meet their needs, including the availability of disaggregated data. Previously, users were only able to access a static list of data in the Data Inventory.
- Developed the Effective Data Management Principles to facilitate the optimal use of public health data to support PHAC's mandate to promote and protect the health of Canadians.

Building a healthy, diverse and inclusive workforce

The Centre for Ombuds, Resolution, and Ethics (CORE) was promoted as a safe space for employees who experience discrimination and racism in the workplace to seek support. CORE also continued to provide its independent and impartial support to diverse employee groups facing discrimination in the workplace, including Black, Indigenous, racialized, persons with disabilities and 2SLGTBQIA+ through its Safe Space Initiative. To support the organization's commitment to the Clerk's Call to Action on Anti-Racism, Equity, and Inclusion in the Federal Public Service, a job aid was created to support individuals and the organisation to identify, understand, and respond to microaggressions in the workplace and access resources. The job aid was also disseminated as a promising tool to other Federal Departments and Agencies. As part of the change agent role of the Ombuds, CORE has identified harassment, discrimination and racism trends and these were brought to the attention of those with the authority to act.

CORE also provided a range of training and services in conflict resolution (including emotional intelligence) and values and ethics to all employees. Individuals and the Agency were supported by informal and collaborative approaches to managing conflict and workplace issues constructively.

PHAC delivered a data proficiency program through a series of data bootcamps in collaboration with Health Canada to upskill data capabilities across the Agency. User Groups were also implemented to enhance knowledge of data-oriented programing languages and allow members to highlight their projects. These collective activities enhanced PHAC's workforce with the skills and tools needed to succeed in the evolving digital space, but also helped retain top talent in a job sector landscape that remains highly competitive.

PHAC implemented a unique staffing approach by partnering with Health Canada to hire highly specialized Data Scientists directly from the Computer Services/Information Technology (IT) group. Traditionally in the federal government, this category is considered part of specific services provided by the IM/IT organization in a department. PHAC and Health Canada's unique staffing approach has resulted in highly successful recruitment programs which has led to these highly skilled experts enhancing PHAC's innovative and leading-edge work.

In line with the requirements of the *Accessible Canada Act*, the federal legislation to create a barrier-free Canada by 2040, PHAC published it's first **Accessibility Plan**[ccxxxvi] on December 19th, 2022, and published the required **feedback mechanism**,[ccxxxvii] a means to collect internal and external feedback related to accessibility. PHAC's Plan outlines a strategy and commitments to remove barriers to accessibility over the next three years. The Plan covers eight priority areas including: Employment; Built Environment; Communications; Information Technologies; Transportation; Procurement; Program and Services; and Culture. Throughout the development of the Accessibility Plan, the Agency consulted and collaborated with employees with disabilities and allies to identify barriers to accessibility. The Agency is developing an internal implementation plan with activities to support the commitments outlined in the Plan and is preparing the first annual progress report, which is due for publication by December 2023.

In 2022–23 the design and planning commenced for two additional Accessible Inclusive Meeting Space (AIMS) boardrooms at 100 and 130 Colonnade. This project is part of Phase II of the PHAC accessibility plan working towards building a more accessible workplace. The project will be executed in 2023–24. Lessons learned from Phase I and current projects will assist in planning for Phase II and III new projects to include AIMS boardrooms and best practices for accessible and inclusive design.

PHAC also launched the Mentorship Plus initiative to support members of employment equity groups who aspire to leadership and executive positions by helping navigate the system for upward career mobility; facilitating increased visibility in informal networks; and providing access to developmental opportunities to build the necessary skills for the executive cadre. Mentors provide support to mentees by encouraging and empowering them to manage their career, achieve their career goals, and identify areas to improve to acquire the skillset to be in a leadership role.

In 2022, the Agency launched an in-house Equitable Access to Language Training Program developed to provide prioritized language training opportunities for indeterminate employees in three of the employment equity groups: Indigenous Peoples, Racialized Persons and Persons with Disabilities. To support the Agency's efforts related to anti-racism and anti-discrimination, the PHAC Voices of Diversity and Inclusion Forum was established in 2022. It allows employee networks to participate in strategic discussion such as the creation and validation of strategies and procedures to promote a more diverse workforce and inclusive work environment, and the PHAC Renewal initiative. The Forum is chaired by the President and Executive Vice-President and is composed of champions and chairs from the employee networks alongside volunteer members and corporate partners in equity, diversity and inclusion and human resources.

In 2022–23, the Agency also developed an Employment Equity Action Plan to improve the representation of racialized people. The Action Plan was developed in response to the Canadian Human Rights Commission's Horizontal Audit on the Employment of Racialized People in Management and Executive Positions in the Public Service for the Agency. The same year, the Agency created the role of Indigenous Career Navigator. The role of this navigator is to support Indigenous employees career pathways as a retention, development and advancement measure.

Also in 2022–23, PHAC launched and implemented all proposed activities in PHAC's **2018–2021 Official Languages Action Plan (OLAP)**,[ccxxxviii] extended to fiscal 2022–23, to support strengthening our culture of bilingualism, such as targeted recruitment initiatives to increase bilingual capacity, and updating the official languages dashboard to identify gaps and trends (i.e., Employment Equity groups). Also developed as the Agency's next OLAP 2023–2026, which aims to foster a culture that embraces linguistic duality, where official languages are seen as a strategic benefit and integrated into our

workplace. The OLAP objectives and key activities integrated feedback from consultations with Equity, Diversity, and Inclusion employee networks to improve employee access to more inclusive language training and maintenance options to support their career development, such as creating a virtual official languages community of practice safe space. This included promoting best practices for overcoming linguistic insecurity, creating a more inclusive work environment conducive to practicing both official languages, and holding bilingual team meetings via Broadcast News articles and "OL 101" type training sessions offered to branch management teams.

To continue building a diverse and inclusive workforce, PHAC used targeted hiring practices such as the Indigenous Student Inventory, the Federal Student Work Experience Program (FSWEP) and student bridging inventories to recruit and hire racially visible and Indigenous candidates. PHAC also supported diverse and inclusive hiring selection boards, which aim to address barriers to inclusion and improve the quality of assessment of all candidates. Since March 2023, board members now sign an Attestation of Impartiality and Diversity form (AIDF), providing a commitment to impartiality and an unbiased assessment, as well as an opportunity for voluntary self-identification of selection board members who belong to equity-deserving groups. In addition, sub-delegated managers must complete the Inclusive Hiring Practices for a Diverse Workforce course before being sub-delegated in staffing.

In 2022–23, PHAC also promoted positive mental health and wellness via the Department's Mental Health and Wellness Strategy. This included several interventions. First, an all-staff meeting focused on mental health and wellness was held to provide employees with information on the tools available to support mental health and manage stress. PHAC maintained and promoted an up-to-date Mental Health Toolkit, which was reorganized to provide more efficient access to relevant resources and tools. The Agency also advanced the Psychosocial Risk Factor Educational Campaign,[ccxxxix] designed to give employees the information and guidance they may need to better promote psychological well-being and actively work to prevent harm, including developing information on workload management and balance. In addition, various learning opportunities were provided through webinars, workshops, training, etc., on mental health, mental illness and reducing stigma in the workplace. Mental health supports were launched, such as Embedded Mental Health Support Services, Leadership Coaching, Customized Mental Health Training, Change Management/Team Building, and the Decompression Program, all aimed at providing leaders and employees with tools to put people first and to support one another in caring for themselves, caring for their colleagues and caring for the teams they lead.

To ensure PHAC continues to be a safe workplace, and compliant with Work Place Harassment and Violence Prevention Regulations, PHAC launched the Employee and Manager Mandatory Prevention of Workplace Harassment and Violence learning paths for employees and 242 virtual sessions were organized for PHAC. PHAC offices with higher training completion rates generated more inquiries received in the Respect in the Workplace Office (RWO); this is indicative that the training has been successful in raising awareness.

The RWO continued its implementation of the Workplace Harassment and Violence Prevention Policy by applying the resolution process when addressing violence and harassment-related complaints. RWO by numbers:

- The RWO experienced an overall 127% increase in the number of new Notices of Occurrence (NoO) received compared to 2021–22.
- In 2022–23, the average timelines to resolve a case from start date to resolution date decreased by 15% compared to 2021–22.
- 14% of NoO in 2022–23 identified a Prohibited Grounds of Discrimination under the Canadian Human Rights Act (race, religion, age, disability, and illness), an increase compared to 2021–22.

- PHAC saw an increase in the number of cases identifying the following three main psychological risks: Psychological Safety and Support, Civility and Respect and Organizational Culture.
- The RWO experienced an overall increase of 8% in new consultations received compared to 2021–22.
- 37% of the total number of consultation requests were received post National Respect in the Workplace Awareness Week, which focused exclusively on promoting tools and resources to support a respectful workplace in a virtual work environment this year, because of its increased consultation requests surrounding employees expressing concerned about disrespectful behaviours in virtual meetings prior and since the Return to Work.

PHAC continued to access psychological support from the Employee Assistance Program (EAP), including LifeSpeak. The 2022–23 biannual report demonstrated PHAC's top trending issues being psychological health, anxiety, family issues, and work-related stress. Employees were provided with the following EAP resources: scheduling appointments via the chat function or the toll-free number, access to the crisis line, counselling services, LifeSpeak resources, as well as onsite psychological support provided by the Employee Assistance Services.

The Workplace Wellness Service Centre (WWSC) Team led the way with an accessible and streamlined process to respond to requests for accommodations under the new hybrid work model, in addition to managing over 338 active cases related to Duty To Accommodate (DTA) and disability management by end of Q4. Using a 'Yes by default' and personalized case management approach, the case managers worked with employees with disabilities and their managers to identify the barriers and the accommodation options that best met both the employee and organizational needs in a hybrid work environment, and supported employees with the completion of their Government of Canada Workplace Accessibility Passport. The Team also led the Senior Management Review Committee process for cases where senior management decision was required. WWSC by numbers:

- The average active cases at the end of Q4 2022–23 shows an increase of 105% in active cases and an increase of 213% in the number of opened cases compared to 2021–22.
- The amount of Disability Management type cases and DTA type cases have increased by 42% and 166% respectively. The significant increase in DTA type cases correlates with the increase in cases being opened related to the re-entry in the workplace.

In addition, the WWSC continued to support employee wellness by providing virtual ergonomic assessments (VEA).

Sex and Gender-based Analysis Plus

Multiple programs, projects, or initiatives within Internal Services contribute to PHAC's advancement of SGBA Plus, with a few examples highlighted as follows:

Based on findings from research and progress made in past years, Health Canada's Employee Assistance Program (EAP, used by PHAC) continued improvements in many areas for all client departments during 2022–23, understanding that the approach to services and promotion cannot be "one size fits all". One example is optimizing outreach and reducing service access barriers for persons who tend to underuse EAP (such as males, 2SLGBTQIA+ persons, Indigenous persons) and/or persons who might experience increased mental health impacts because of COVID-19 (e.g., women, Indigenous Peoples, 2SLGBTQIA+ persons). This was accomplished through leveraging technology, including focussed social media communications, real time chat, procurement and promotion of

proven digital wellness resources, and availability of virtual face to face counselling via secure video. Another example is that the EAP worked to improve its capacity to match clients requesting a counsellor with a specific identity, lived and living experience or other relevant expertise, through ongoing surveys of the counsellor network and associated focussed recruitment. Finally, EAP providing additional training for the counsellor network on 2SLGBTQIA+ inclusion. To date, the training has been taken by more than 400 EAP mental health professionals.

The Agency's innovative public education campaign was tailored to adults in 2SLGBTQIA+ communities to increase awareness of mpox, including how to prevent it and what to do if diagnosed with mpox. The Agency collaborated with Grindr to share mpox messaging that resonated with audiences on the platform, including information on vaccines and vaccination clinics, with the 2SLGBTQIA+ community.

Marketing campaigns considered SGBA Plus principles, which is in line with all other Government of Canada campaigns. Media planning and media purchasing was conducted using the Government of Canada's Agency of Record and coordinated by Public Services and Procurement Canada to ensure standard advertising practices are followed.

At the WHO Intergovernmental Negotiating Body Meeting in 2022, Canada's reinforced the need for the Pandemic Instrument to integrate health equity, gender equality lenses, and advance the social, economic, and environmental determinants of health. This included hosting a side event on gender and the Pandemic Instrument.

At the G20 Health Ministers' Meeting held in June 2022 in Indonesia, Canada identified the importance of continued focus on the principles of equity, gender equality and inclusivity in advancing a One Health approach and encouraged Member States to consider the different impacts of One Health threats on vulnerable demographics and populations.

The International Health Grants Program (IHGP) supported equity, diversity, and inclusion via targeted projects, specifically to develop a broader package of tools to support health inequality monitoring, and to create a knowledge exchange network to share information on issues pertaining to intersectoral action on social determinants of health and advancing health equity.

Canada continued to advance equity and gender equality at the WHO through the inclusion of equity and gender equality language in WHO resolutions and in interventions at WHO's Executive Board and at the World Health Assembly. Canada has done the same at the regional level, at PAHO's Governing Body meetings, including the Executive Committee and Pan American Sanitary Conference.

PHAC started developing an anti-racism in science strategy and action plan. The strategy and action plan advances science excellence by creating an equitable and inclusive scientific environment that values diverse perspectives, experiences, and forms of knowledge. The strategy addresses racism and racial bias in science and research. A PHAC Anti-racism and Science Action Committee was developed.

United Nations' (UN) 2030 Agenda for Sustainable Development and the UN Sustainable Development Goals

CSB's Environmental Management Services team (HC) assisted PHAC with the initial stages of the planning and development of their Climate Change Risk Assessment, sharing information and lessons learned so PHAC could develop the scope of work for their Climate Change Risk Assessment.

PHAC and HC's international work contributed toward achieving SDG 3: "Good Health and Well-Being." Canada's health objectives were advanced via facilitating collaboration with

likeminded countries and partners in multilateral fora such as UN institutions, the WHO, the Pan-American Health Organization, and key bilateral partners to respond to a broad range of global health challenges. Canada was chair of the Commonwealth Health Advisory Committee for 2022–23, which included leading consultations and development of the year's Commonwealth Health Ministers meeting declaration on accelerating efforts to achieve Universal Health Coverage (UHC).

Canada's active participation in the WHO Framework Convention on Tobacco Control and the International Agency for Research on Cancer contributed to the specific target on reducing premature mortality from non-communicable diseases (3.4). Canada has continued to promote the good governance, transparency, efficiency, and effectiveness of these organizations. Canada's efforts related to strengthening global health governance within these and other fora also contribute to SDG 16: "Peace, Justice and Strong institutions."

The International Health Grants Program supported the advancement of SDG 3: "Good Health and Well-Being" by providing funding to international recipients to advance global health issues of interest to Canada, such as health equity, mental health, and AMR. The program also contributes to the advancement of other SDGs, such as SDG 13: "Climate Action" and SDG 10: "Reduced inequalities".

Innovation

In 2022–23, PHAC implemented innovative and customized intentional recruitment approaches tailored to each Equity deserving hiring group. Emphasis last year was on Persons with Disabilities (PWD) recruitment to meet Government of Canada commitments. Efforts resulted in a significant increase in PWD hiring and targets were surpassed for 2022–23. Work also began on staffing strategies for increasing Indigenous Peoples' representation, including launching a tailored inventory. Additionally, the Indigenous Employee Network and HRSD co-developed a First Nations, Inuit, Métis Human Resources Framework of which there is a major recruitment and retention component. Many collective staffing processes and inventory callouts for ongoing staffing needs across the Agency were successfully implemented to meet high volume of staffing demands and to achieve greater efficiencies in the staffing process. Innovative approaches for effectively and efficiently managing staffing pools were also initiated and this work will continue. Training was offered through Managers Technical Briefings and mandatory training to increase awareness and understanding of flexibilities and address potential barriers.

Contracts awarded to Indigenous businesses

PHAC is a Phase 3 organization and is aiming to achieve the minimum 5% target by the end of 2024–25.

As part of the strategy to increase opportunities for Indigenous businesses, PHAC has implemented the following measures:

- quarterly reports to monitor progress towards the target, disseminated to senior management, contracting authorities, branch planners, and business owners;
- updated intranet with information for business owners and contracting authorities; and
- procurement specialists attended an information session on Indigenous procurement presented by Indigenous Services Canada.

The financial system (SAP) was modified to facilitate accurate identification of Indigenous businesses to assist with reporting on results. Additionally, 100% of procurement specialists have completed the mandatory course Indigenous Considerations in Procurement (COR409) from the Canada School of Public Service.

Budgetary financial resources (dollars)

The following table shows, for internal services, budgetary spending for 2022–23, as well as spending for that year.

2022–23 Main Estimates	2022–23 planned spending	2022–23 total authorities available for use	2022–23 actual spending (authorities used)	2022–23 difference (actual spending minus planned spending)
218,820,556	218,820,556	270,124,222	239,851,505	21,030,949

Actual spending is higher than planned primarily due to a reallocation of funds to sustain the Agency's COVID-19 response.

Human resources (full-time equivalents)

The following table shows, in full-time equivalents, the human resources the department needed to carry out this core responsibility for 2022–23.

2022–23 planned full-time equivalents	2022–23 actual full-time equivalents	2022–23 difference (actual full-time equivalents minus planned full-time equivalents)
856	682	-174

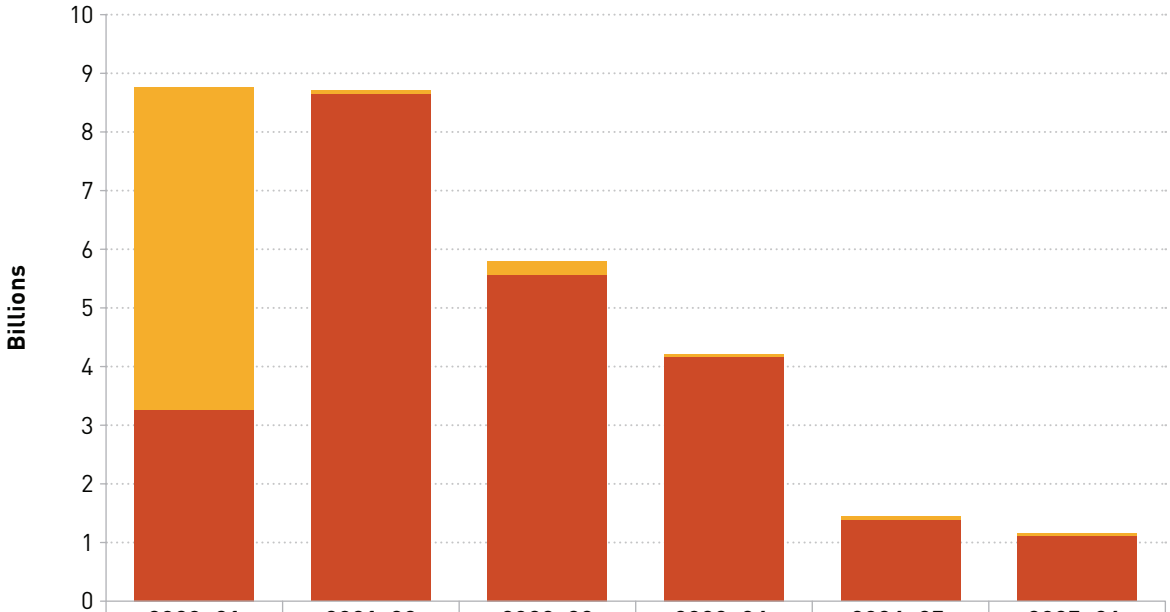
The number of actual full-time equivalents are less than planned due to the annual transfer of resources from PHAC to Health Canada under the Health Portfolio Shared Services Partnership Agreement. This is offset by the reclassification of full-time equivalents to other core responsibilities that were originally planned in Internal Services to sustain the Agency's COVID-19 response.

SPENDING AND HUMAN RESOURCES

SPENDING

Spending 2020–21 to 2025–26

The following graph presents planned (voted and statutory) spending over time.



	2020–21	2021–22	2022–23	2023–24	2024–25	2025–26
Statutory	5,492,229,394	65,768,896	216,902,943	59,185,441	57,128,410	46,418,696
Voted	3,265,530,238	8,639,663,600	5,568,874,773	4,157,588,032	1,387,221,059	1,222,822,172
Total	8,757,759,632	8,705,432,497	5,785,777,716	4,216,773,473	1,444,349,469	1,269,240,868

In the midst of the pandemic response, specifically during the fiscal years 2020–21 and 2021–22, the Agency prioritized a substantial portion of its expenditure towards key response areas such as procuring medical supplies and equipment, including personal protective equipment, supporting medical research and vaccine acquisition, reinforcing border and travel health measures, establishing isolation sites, bolstering surge capacity, and implementing COVID-19 rapid testing initiatives. Additionally, during the 2020–21 fiscal year, statutory funding through the *Public Health Events of National Concern Payments Act* was utilized, but this funding mechanism was subsequently terminated on December 31, 2020.

In light of the evolving trajectory of the COVID-19 pandemic, the Agency has observed a 34% or $2.9 billion decrease in actual spending during the fiscal year 2022–23 compared to the previous two fiscal years. This decline is attributable to a reduction in spending for:

- The procurement and distribution of COVID-19 vaccines, rapid test kits and personal protective equipment;
- Border testing and travel measures; and
- Surge capacity to sustain the Agency's pandemic response.

This reduction in spending is partially offset by the increase in spending in the following areas:

- Acquisition of COVID-19 therapeutics;
- Procurement of domestic influenza and pediatric vaccines;
- Effective and timely outbreak management of mpox;
- Promotion and support of mental health; and
- Implementation of the surveillance and risk assessment initiative.

The Agency also experienced an increase in statutory spending in 2022–23 with the introduction of a COVID-19 Proof of Vaccination fund, as announced in the Fall Economic Statement of 2021, compensating provinces and territories for costs to implement the associated COVID-19 proof of vaccination credentials program.

In the upcoming years, there will continue to be a noticeable decline in spending as planned expenditures from 2023–24 to 2025–26 decrease. This reduction is mainly attributed to the gradual expiry of temporary budgetary authorities that were allocated for the Agency's COVID-19 response.

Budgetary performance summary for core responsibilities and internal services (dollars)

The "Budgetary performance summary for core responsibilities and internal services" table presents the budgetary financial resources allocated for PHAC's core responsibilities and for internal services.

Core responsibilities and Internal Services	2022–23 Main Estimates	2022–23 planned spending	2023–24 planned spending	2024–25 planned spending	2022–23 total authorities available for use	2020–21 actual spending (authorities used)	2021–22 actual spending (authorities used)	2022–23 actual spending (authorities used)
Health Promotion and Chronic Disease Prevention	404,242,333	404,242,333	415,676,441	318,236,930	435,594,303	291,289,487	288,018,815	406,844,196
Infectious Disease Prevention and Control	7,439,195,456	7,439,195,456	3,379,801,950	823,097,882	10,430,086,037	3,794,133,883	6,863,543,133	4,514,633,198
Health Security	432,712,693	432,712,693	308,178,850	193,084,592	812,568,186	4,459,284,771	1,350,729,504	624,448,818
Subtotal	**8,276,150,482**	**8,276,150,482**	**4,103,657,241**	**1,334,419,404**	**11,682,181,208**	**8,544,708,141**	**8,502,291,452**	**5,545,926,211**
Internal Services	218,820,556	218,820,556	113,116,232	109,930,065	270,124,222	213,051,491	203,141,045	239,851,505
Total	**8,494,971,038**	**8,494,971,038**	**4,216,773,473**	**1,444,349,469**	**11,952,305,429**	**8,757,759,632**	**8,705,432,497**	**5,785,777,716**

The Health Promotion and Chronic Disease core responsibility experienced considerable growth in spending in 2022–23 compared to previous years due to an increase in spending in the areas of Indigenous Early Learning and Child Care and Mental Health, including the mental health of those most affected by COVID-19. Further, additional investments were made to strengthen the Agency's ability to access public health data and to build on the critical capacity and infrastructure needed to assess the current and future risks to the health of people in Canada.

Under the Infectious Disease Prevention and Control core responsibility, a significant decrease in spending was observed compared to the previous year mainly due to reduced operations in the procurement and distribution of COVID-19 vaccines and the procurement of COVID-19 rapid tests. In addition, the Government of Canada announced, effective October 1, 2022, the removal of all COVID-19 entry restrictions for those entering Canada, which led to a spending decrease compared to previous years in areas related to border travel and COVID-19 testing services. These decreases are partially offset by investments in the procurement of COVID-19 therapeutics following their regulatory approval, and to protect the most vulnerable people in Canada against concurrent influenza and pneumococcal infections.

As part of its large-scale efforts regarding the COVID-19 pandemic response, the Agency made bulk procurement of medical supplies and equipment, including personal protective equipment in 2020–21. As the pandemic has evolved, spending for medical supplies and equipment, including personal protective equipment, under the Health Security core responsibility has declined annually. Additionally, the government announced the removal of border and travel restrictions effective October 1, 2022, which also led to a decrease in spending to support border, travel and quarantine activities under Health Security.

Spending within internal services increased in 2022–23 compared to previous years in order to continue to support the Agency's capabilities to sustain its pandemic response, through COVID-19 public education campaigns, including the promotion of public health measures.

2022–23 Budgetary actual gross spending summary (dollars)

The following table reconciles gross planned spending with net spending for 2022–23.

Core responsibilities and internal services	2022–23 actual gross spending	2022–23 actual revenues netted against expenditures	2022–23 actual net spending (authorities used)
Health Promotion and Chronic Disease Prevention	406,844,196	-	406,844,196
Infectious Disease Prevention and Control	4,514,633,198	-	4,514,633,198
Health Security	625,349,433	(900,615)	624,448,818
Subtotal	**5,546,826,826**	**(900,615)**	**5,545,926,211**
Internal Services	239,851,505	-	239,851,505
Total	**5,786,678,331**	**(900,615)**	**5,785,777,716**

As signatory to the WHO's International Health Regulations[ccxl] (2005), PHAC earns revenue from inspections conducted on international maritime vessels and issuing Ship Sanitation Certificates and Ship Sanitation Exemption Certificates. Fees are charged in accordance with Canada's Service Fees Act. In 2022–23, PHAC collected $0.9 million in revenue from the inspection of maritime vessels.

HUMAN RESOURCES

The "Human resources summary for core responsibilities and internal services" table presents the full-time equivalents (FTEs) allocated to each of PHAC's core responsibilities and to internal services.

Human resources summary for core responsibilities and internal services

Core responsibilities and internal services	2020–21 actual full-time equivalents	2021–22 actual full-time equivalents	2022–23 planned full-time equivalents	2022–23 actual full-time equivalents	2023–24 planned full-time equivalents	2024–25 planned full-time equivalents
Health Promotion and Chronic Disease Prevention	542	564	623	653	611	612
Infectious Disease Prevention and Control	1,149	1,697	2,491	1,948	1,674	1,691
Health Security	743	1,448	949	1,282	625	449
Subtotal	**2,434**	**3,709**	**4,063**	**3,883**	**2,910**	**2,752**
Internal Services	426	659	856	682	428	423
Total	**2,860**	**4,368**	**4,919**	**4,565**	**3,338**	**3,175**

Since the start of the pandemic, the Agency has continued to see an increase in full-time equivalents from 2,860 in 2020–21 to 4,565 by the end of 2022–23. This increase is primarily related to temporary and permanent staff hired to support the Agency's COVID-19 response.

In 2022–23, the **Health Promotion and Chronic Disease Prevention** core responsibility saw an increase in full-time equivalents compared to previous years primarily to support the surge capacity required to sustain the Agency's COVID-19 response and the surveillance and risk assessment initiative.

The **Infectious Disease Prevention and Control** core responsibility saw an increase in full-time equivalent levels in 2022–23 primarily to support the surge capacity required to sustain the Agency's COVID-19 response, the surveillance and risk assessment initiative and to support Canada's COVID-19 vaccine procurement strategy to protect people in Canada against the threat of pandemic influenza.

In 2022–23, actual full-time equivalents under the **Health Security** core responsibility decreased primarily due to the removal of all COVID-19 entry restrictions for those entering Canada during the fiscal year, and to reduced surge capacity support required to sustain the services of the Agency's COVID-19 response. This was offset by an increase in full-time equivalents to support health assessments for Afghans and Ukrainians coming into Canada.

In 2022–23, **Internal Services** saw an increase in full-time equivalents primarily to support the surge capacity required to sustain the core support services of the Agency's COVID-19 response.

Looking ahead, the Agency's full-time equivalent levels are expected to gradually decline with the expiry of temporary budgetary authorities related to the COVID-19 pandemic.

EXPENDITURES BY VOTE

For information on PHAC's organizational voted and statutory expenditures, consult the Public Accounts of Canada.[ccxli]

GOVERNMENT OF CANADA SPENDING AND ACTIVITIES

Information on the alignment of PHAC's spending with Government of Canada's spending and activities is available in GC InfoBase.[ccxlii]

FINANCIAL STATEMENTS AND FINANCIAL STATEMENTS HIGHLIGHTS

Financial statements

PHAC's financial statements (unaudited) for the year ended March 31, 2023, are available on the department's website.

Financial statement highlights

Condensed Statement of Operations (unaudited) for the year ended March 31, 2023 (dollars)

Financial information	2022–23 planned results	2022–23 actual results	2021–22 actual results	Difference (2022–23 actual results minus 2022–23 planned results)	Difference (2022–23 actual results minus 2021–22 actual results)
Total expenses	9,495,136,406	5,034,394,985	10,366,319,706	-4,460,741,421	-5,331,924,721
Total revenues	14,101,621	17,412,485	15,177,376	3,310,864	2,235,109
Net cost of operations before government funding and transfers	9,481,034,785	5,016,982,500	10,351,142,330	-4,464,052,285	-5,334,159,830

The 2022–23 planned results information is provided in PHAC's Future-Oriented Statement of Operations and Notes 2022–23.[ccxliii]

Highlights of the 2022–23 financial statements underscore the ongoing involvement of the Agency in the government's COVID-19 response, along with its efforts to address emerging public health concerns. Total expenses and net cost of operations before government funding or transfers decreased by $5,334.2 million. In 2022–23, the Agency's focus shifted to procuring and distributing COVID-19 therapeutics and medical countermeasures while strengthening Canada's surveillance and capacity to detect and act on public health threats. The following events contributed to a decrease in the cost of operations:

- Reduced procurement of COVID-19 vaccines, rapid tests, and medical supplies and equipment, including personal protective equipment;
- Reduced activities to support border and travel measures including testing and quarantine operations following the Government of Canada's removal of COVID-19 entry restrictions on October 1, 2023; and
- Reduced provisions for inventory valuation adjustments due to expired, obsolete, surplus or damaged items and pricing adjustments to reflect market replacement values.

These decreases were offset by an increase in procurement of COVID-19 therapeutics and increased spending in the areas of the COVID-19 proof of vaccination credential program, Indigenous Early Learning and Child Care, Mental Health, including the mental health of those most affected by COVID-19.

Revenues earned in 2022–23 increased by $2.2 million as compared to the previous year. Actual revenues earned were $3.3 million over planned. The variance as compared to the previous year is primarily due to an increase of gains on foreign exchange and gains on disposal of non-capital assets to outside parties realized in 2022–23.

Condensed Statement of Financial Position (unaudited) as of March 31, 2023 (dollars)

Financial information	2022–23	2021–22	Difference (2022–23 minus 2021–22)
Total net liabilities	434,062,163	1,122,837,591	-688,775,428
Total net financial assets	398,341,934	1,083,078,387	-684,736,453
Departmental net debt	35,720,229	39,759,204	-4,038,975
Total non-financial assets	3,985,440,990	3,705,538,091	279,902,899
Departmental net financial position	3,949,720,761	3,665,778,887	283,941,874

The 2022–23 planned results information is provided in **PHAC's Future-Oriented Statement of Operations and Notes 2022–23.**[ccxliv]

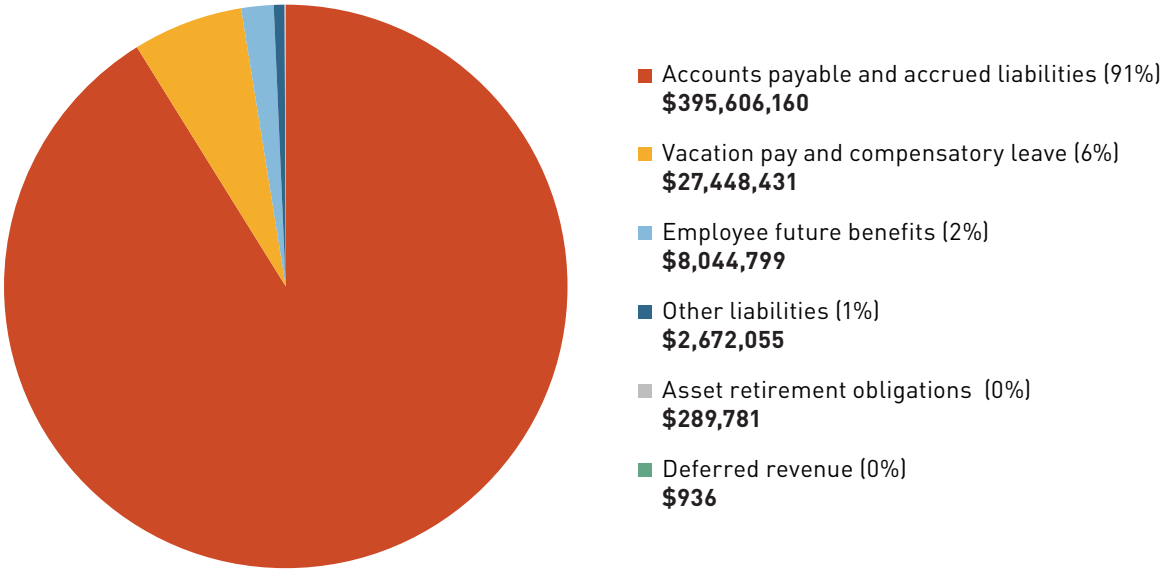
PHAC's net debt decreased over the previous year primarily due to the decrease to the accrual for vacation and compensatory leave due to the payments made during the fiscal year following the reinstitution of the mandatory vacation cash-out payments as of March 31, 2022.

The Agency's net financial position increased over the previous year primarily due to:

- An increase of inventory from purchases of COVID-19 vaccines and therapeutics, other medical countermeasures; and
- A decrease in prepaid expenses due to the receipt of COVID-19 vaccines and therapeutics secured under advance purchase agreements earlier in the pandemic.

This was partially offset by the distribution and transfer of medical supplies and equipment, including personal protective equipment to provinces, territories, and other government departments.

FIGURE 2: Liability by Type



Source: Public Health Agency of Canada – Office of Chief Financial Officer

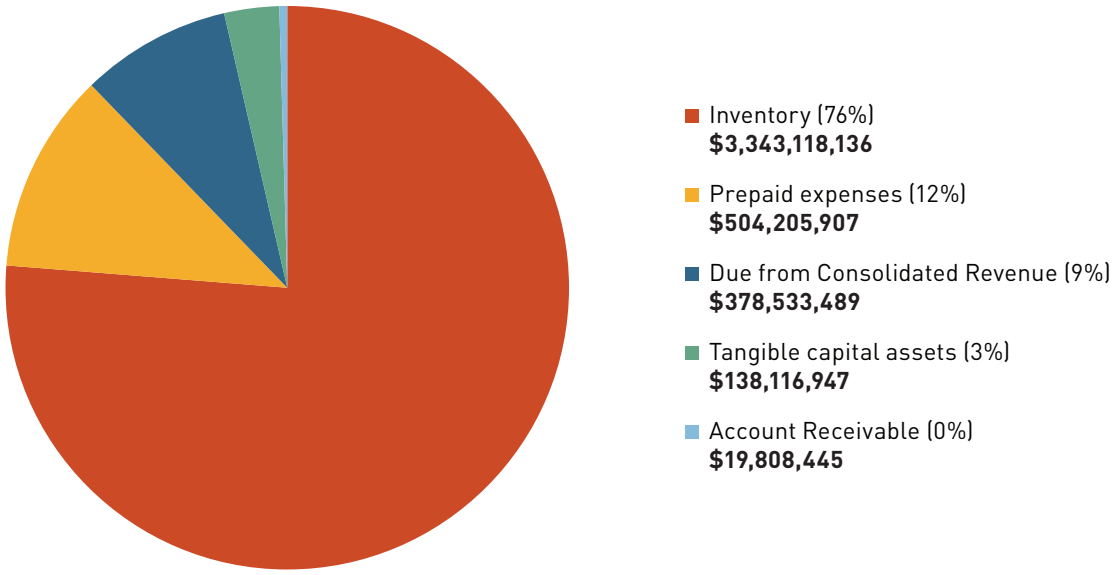
Total net liabilities were $434,062,163, a decrease of $688,775,428 (61%) over the previous year's total. The decrease can be primarily attributed to reduced temporary short-term liabilities created by the timing and volume of invoices for and the procurement of vaccines, therapeutics, rapid test kits and border testing services in 2022–23. These short-term liabilities are largely funded by the amount included in the Due from Consolidated Revenue Fund asset account in Figure 3.

Added to the liabilities in 2022–23 was the recognition of Asset Retirement Obligations. In accordance with Public Sector Accounting Standards, the Agency has a new reporting requirement to recognize expenses related to the cost associated with the retirement of capital assets during the life of the asset, as opposed to at the time of retirement.

Of the total liabilities:

- Accounts payable and accrued liabilities represented $395,606,160 (91%);
- Vacation pay and compensatory leave represented $27,448,431 (6%);
- Employee future benefits represented $8,044,799 (2%);
- Other liabilities represented $2,672,055 (1%);
- Asset retirement obligations $289,781 (0%); and
- Deferred revenue represented $936 (0%).

FIGURE 3: Asset by Type



Source: Public Health Agency of Canada – Office of the Chief Financial Officer

Total net assets (including non-financial assets) decreased by $404,833,554 since 2021–22 to a total of $4,383,782,924. The variance can be primarily attributed to:

- Decrease in prepaid expenses due to the receipt of vaccines and therapeutics secured under advance purchase agreements;
- Increase in inventory primarily due to additional procurement of COVID-19 therapeutics and other medical countermeasures. This is offset by distribution and transfer of medical supplies and equipment, including personal protective equipment to provinces, territories, and other government departments; and
- Increase in tangible capital assets primarily due to additional purchases of diagnostic testing systems to be deployed for northern, remote, and isolated (NRI) communities.

The resulting decrease in Due from Consolidated Revenue fund is also due to a reduction of temporary receivables related to the volume and timing of invoices processed at year end.

Of the total assets:

- Inventory represented $3,343,118,136 (76%);
- Prepaid expenses represented $504,205,907 (12%);
- Due from Consolidated Revenue fund represented $378,533,489 (9%);
- Tangible capital assets represented $138,116,947 (3%); and
- Accounts receivable represented $19,808,445 (0%).

CORPORATE INFORMATION

ORGANIZATIONAL PROFILE

Appropriate minister(s): The Honourable Mark Holland, P.C., M.P. Minister of Health and the Honourable Ya'ara Saks, P.C., M.P. Minister of Mental Health and Addictions and Associate Minister of Health

Institutional head: Heather Jeffrey

Ministerial portfolio: Health

Enabling instrument(s): *Public Health Agency of Canada Act*,[ccxlv] *Department of Health Act*,[ccxlvi] *Emergency Management Act*,[ccxlvii] *Quarantine Act*,[ccxlviii] *Human Pathogens and Toxins Act*,[ccxlix] *Health of Animals Act*,[ccl] *Federal Framework on Lyme Disease Act*,[ccli] *and Federal Framework for Suicide Prevention Act*.[cclii]

Year of incorporation / commencement: 2004

Other: In June 2012, the Deputy Heads of Health Canada and the Public Health Agency of Canada signed a Shared Services Partnership Framework Agreement. Under this agreement, each organization retains responsibility for a different set of internal services and corporate functions. These include: human resources; real property; information management/information technology; security; internal financial services; communications; emergency management; international affairs; internal audit services; and evaluation services.

RAISON D'ÊTRE, MANDATE AND ROLE: WHO WE ARE AND WHAT WE DO

Information on PHAC's raison d'être, mandate and role is available on the **Public Health Agency of Canada's website**.[ccliii]

Information on PHAC's mandate letter commitments is available in the mandate letters for the **Minister of Health**[ccliv] and **Minister of Mental Health and Addictions and Associate Minister of Health.**[cclv]

OPERATING CONTEXT

Information on the operating context is available on the **Public Health Agency of Canada's website**.[cclvi]

REPORTING FRAMEWORK

The Public Health Agency of Canada's departmental results framework and program inventory of record for 2022–23 are shown below.

CORE RESPONSIBILITY 1: HEALTH PROMOTION AND CHRONIC DISEASE PREVENTION	
RESULT 1.1: Canadians have improved physical and mental health	**Indicator:** % of low-income children in very good or excellent health
	Indicator: % of the population who have high psychological well-being
RESULT 1.2: Canadians have improved health behaviours	**Indicator:** % increase in average minutes per day of physical activity among adults
	Indicator: % increase in average minutes per day of physical activity among children and youth
RESULT 1.3: Chronic diseases are prevented	**Indicator:** % increase in years lived in good health by seniors
	Indicator: Rate per 1000 of new diabetes cases among Canadians
	Indicator: % of adults who are obese
	Indicator: % of children and youth who are obese
PROGRAM INVENTORY	
Health Promotion Chronic Disease Prevention Evidence for Health Promotion, and Chronic Disease and Injury Prevention	

CORE RESPONSIBILITY 2: INFECTIOUS DISEASE PREVENTION AND CONTROL	
RESULT 2.1: Infectious diseases are prevented and controlled	**Indicator:** % of 2 year old children who have received all recommended vaccinations
	Indicator: Proportion of national vaccination coverage goals met for children by 2 years of age
	Indicator: Rate per 100,000 of new diagnosed cases of Human Immunodeficiency Virus (HIV)
	Indicator: Rate of key antimicrobial resistant infection identified among people in hospitals
RESULT 2.2: Infectious disease outbreaks and threats are prepared for and responded to effectively	**Indicator:** % of foodborne illness outbreaks responded to within 24 hours of notification
	Indicator: % of new pathogens of international concern that Canada has the capacity to accurately test for
PROGRAM INVENTORY	
Laboratory Science Leadership and Services Communicable Disease and Infection Control Vaccination Foodborne and Zoonotic Diseases	

CORE RESPONSIBILITY 3: HEALTH SECURITY	
RESULT 3.1: Public health events and emergencies are prepared for and responded to effectively	**Indicator:** Level of Canada's readiness to respond to public health events and emergencies as assessed independently by the World Health Organization
	Indicator: % of provincial and territorial requests for assistance (for deployment of Agency staff) responded to within negotiated timelines
	Indicator: % of provincial and territorial requests for assistance (for the provision of supplies) responded to within negotiated timelines
	Indicator: % of provincial and territorial requests for assistance (for inter-jurisdictional mutual aid for health care professionals) responded to within negotiated timelines
RESULT 3.2: Public health risks associated with the use of pathogens and toxins are reduced	**Indicator:** % of compliance issues in Canadian laboratories successfully responded to within established timelines
RESULT 3.3: Public health risks associated with travel are reduced	**Indicator:** Level of Canada's capacity for effective public health response at designated points of entry into Canada
	Indicator: % of inspected passenger transportation operators that meet public health requirements
PROGRAM INVENTORY	
Emergency Preparedness and Response Biosecurity Border and Travel Health	

INTERNAL SERVICES	
Management and Oversight Services	Information Management Services
Communications Services	Information Technology Services
Legal Services	Real Property Management Services
Human Resources Management Services	Materiel Management Services
Financial Management Services	Acquisition Management Services

SUPPORTING INFORMATION ON THE PROGRAM INVENTORY

Financial, human resources and performance information for PHAC's program inventory is available in GC InfoBase.[cclvii]

SUPPLEMENTARY INFORMATION TABLES

The following supplementary information tables are available on the **Public Health Agency of Canada's website**:[cclviii]

- Reporting on Green Procurement
- Details on transfer payment programs
- Sex and Gender-Based Analysis Plus
- United Nations 2030 Agenda and the Sustainable Development Goals
- Response to Parliamentary Committees

FEDERAL TAX EXPENDITURES

The tax system can be used to achieve public policy objectives through the application of special measures such as low tax rates, exemptions, deductions, deferrals and credits. The Department of Finance Canada publishes cost estimates and projections for these measures each year in the **Report on Federal Tax Expenditures**.[cclix] This report also provides detailed background information on tax expenditures, including descriptions, objectives, historical information and references to related federal spending programs as well as evaluations and GBA Plus of tax expenditures.

ORGANIZATIONAL CONTACT INFORMATION

Public Health Agency of Canada
130 Colonnade Road
Ottawa, ON K1A 0K9

Telephone: 1-844-280-5020

TTY: 1-800-465-7735

Fax: 613-941-5366

Email: hc.publications-publications.sc@canada.ca

Website: Public Health Agency of Canada

APPENDIX: DEFINITIONS

appropriation *(crédit)*
Any authority of Parliament to pay money out of the Consolidated Revenue Fund.

budgetary expenditures *(dépenses budgétaires)*
Operating and capital expenditures; transfer payments to other levels of government, organizations or individuals; and payments to Crown corporations.

core responsibility *(responsabilité essentielle)*
An enduring function or role performed by a department. The intentions of the department with respect to a core responsibility are reflected in one or more related departmental results that the department seeks to contribute to or influence.

Departmental Plan *(Plan ministériel)*
A report on the plans and expected performance of an appropriated department over a 3-year period. Departmental Plans are usually tabled in Parliament each spring.

departmental priority *(priorité ministérielle)*
A plan or project that a department has chosen to focus and report on during the planning period. Priorities represent the things that are most important or what must be done first to support the achievement of the desired departmental results.

departmental result *(résultat ministériel)*
A consequence or outcome that a department seeks to achieve. A departmental result is often outside departments' immediate control, but it should be influenced by program-level outcomes.

departmental result indicator *(indicateur de résultat ministériel)*
A quantitative measure of progress on a departmental result.

departmental results framework *(cadre ministériel des résultats)*
A framework that connects the department's core responsibilities to its departmental results and departmental result indicators.

Departmental Results Report *(Rapport sur les résultats ministériels)*
A report on a department's actual accomplishments against the plans, priorities and expected results set out in the corresponding Departmental Plan.

full-time equivalent *(équivalent temps plein)*
A measure of the extent to which an employee represents a full personyear charge against a departmental budget. For a particular position, the full-time equivalent figure is the ratio of number of hours the person actually works divided by the standard number of hours set out in the person's collective agreement.

gender-based analysis plus (GBA Plus) *(analyse comparative entre les sexes plus [ACS Plus])*
An analytical tool used to support the development of responsive and inclusive policies, programs and other initiatives; and understand how factors such as sex, race, national and ethnic origin, Indigenous origin or identity, age, sexual orientation, socio-economic conditions, geography, culture and disability, impact experiences and outcomes, and can affect access to and experience of government programs.

government-wide priorities
(priorités pangouvernementales)
For the purpose of the 2022–23 Departmental Results Report, government-wide priorities are the high-level themes outlining the government's agenda in the November 23, 2021, Speech from the Throne: building a healthier today and tomorrow; growing a more resilient economy; bolder climate action; fighter harder for safer communities; standing up for diversity and inclusion; moving faster on the path to reconciliation; and fighting for a secure, just and equitable world.

horizontal initiative *(initiative horizontale)*
An initiative where two or more federal organizations are given funding to pursue a shared outcome, often linked to a government priority.

Indigenous business *(entreprise autochtone)*
For the purpose of the *Directive on the Management of Procurement Appendix E: Mandatory Procedures for Contracts Awarded to Indigenous Businesses* and the Government of Canada's commitment that a mandatory minimum target of 5% of the total value of contracts is awarded to Indigenous businesses, an organization that meets the definition and requirements as defined by the Indigenous Business Directory.

nonbudgetary expenditures *(dépenses non budgétaires)*
Net outlays and receipts related to loans, investments and advances, which change the composition of the financial assets of the Government of Canada.

performance *(rendement)*
What an organization did with its resources to achieve its results, how well those results compare to what the organization intended to achieve, and how well lessons learned have been identified.

performance indicator *(indicateur de rendement)*
A qualitative or quantitative means of measuring an output or outcome, with the intention of gauging the performance of an organization, program, policy or initiative respecting expected results.

performance reporting *(production de rapports sur le rendement)*
The process of communicating evidencebased performance information. Performance reporting supports decision making, accountability and transparency.

plan *(plan)*
The articulation of strategic choices, which provides information on how an organization intends to achieve its priorities and associated results. Generally, a plan will explain the logic behind the strategies chosen and tend to focus on actions that lead to the expected result.

planned spending *(dépenses prévues)*
For Departmental Plans and Departmental Results Reports, planned spending refers to those amounts presented in Main Estimates.

A department is expected to be aware of the authorities that it has sought and received. The determination of planned spending is a departmental responsibility, and departments must be able to defend the expenditure and accrual numbers presented in their Departmental Plans and Departmental Results Reports.

program *(programme)*
Individual or groups of services, activities or combinations thereof that are managed together within the department and focus on a specific set of outputs, outcomes or service levels.

program inventory *(répertoire des programmes)*
Identifies all the department's programs and describes how resources are organized to contribute to the department's core responsibilities and results.

result *(résultat)*
A consequence attributed, in part, to an organization, policy, program or initiative. Results are not within the control of a single organization, policy, program or initiative; instead, they are within the area of the organization's influence.

statutory expenditures *(dépenses législatives)*
Expenditures that Parliament has approved through legislation other than appropriation acts. The legislation sets out the purpose of the expenditures and the terms and conditions under which they may be made.

target *(cible)*
A measurable performance or success level that an organization, program or initiative plans to achieve within a specified time period. Targets can be either quantitative or qualitative.

voted expenditures *(dépenses votées)*
Expenditures that Parliament approves annually through an Appropriation Act. The vote wording becomes the governing conditions under which these expenditures may be made.

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