



**2023 - 2027**

# **STRATEGIC PLAN**



**CanPath**

Canadian Partnership  
for Tomorrow's Health

Partenariat canadien  
pour la santé de demain



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# OUR STORY

## INTRODUCTION

CanPath is studying the biology, behaviours and environments of Canadians to learn more about the causes of chronic disease and cancer. CanPath collects longitudinal health data from over 330,000 participants across Canada to support research studying our health in the past, present, and future. Many participants have also provided physical measures, mental health measures, and biological samples.

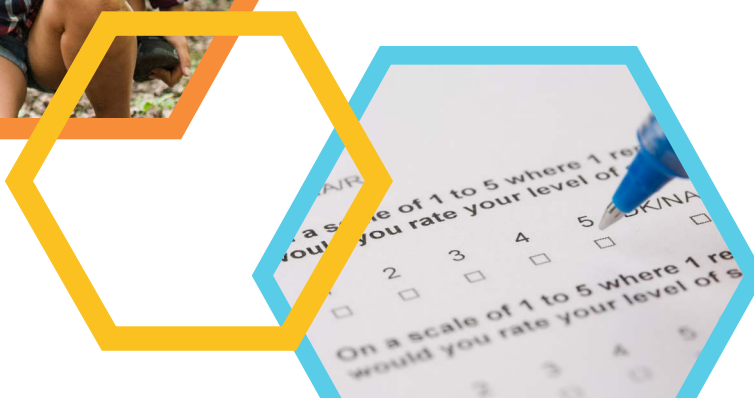
All CanPath data has been harmonized across the provinces to create a pan-Canadian resource with more than 3,800 variables. Participants have consented to link their data to administrative health records and are open to being recontacted for follow-up studies, enabling passive follow-up of health outcomes over time. Over time, the power of CanPath will grow as new data are added and health outcomes are detected.

## OUR REGIONAL COHORTS

CanPath comprises seven regional cohorts (five mature cohorts and two in development) across all ten provinces. CanPath's National Coordinating Centre is based at the University of Toronto's Dalla Lana School of Public Health.



-  **BC Generations Project (BCGP)**  
British Columbia
-  **Alberta's Tomorrow Project (ATP)**  
Alberta
-  **Healthy Future Sask (HFS)**  
Saskatchewan
-  **Manitoba Tomorrow Project (MTP)**  
Manitoba
-  **Ontario Health Study (OHS)**  
Ontario
-  **CARTaGENE (CaG)**  
Quebec
-  **Atlantic PATH (PATH)**  
Newfoundland and Labrador, New Brunswick, Nova Scotia, P.E.I.



# OUR GOALS

CanPath is working in partnership to prevent disease and provide a platform for scientists to conduct innovative research.

We're expecting - and beginning to see - real, tangible results and outcomes and we're focused on a not-too-distant future in which the actions we take today improve and save lives tomorrow.



## PURPOSE

Enhance and accelerate research for a healthier Canada.



## VISION

Working together for a world without chronic disease and cancer.



## MISSION

To provide a national platform for population-level health research in Canada and globally.



# LAND ACKNOWLEDGEMENT

We acknowledge that the land on which the CanPath National Coordinating Centre operates at the University of Toronto has for thousands of years been the traditional land of the Huron-Wendat, the Seneca, and the Mississaugas of the Credit. Together with CanPath teams across Canada from coast to coast, we are grateful for the opportunity to work on lands that are home to many Indigenous people from across Turtle Island.

# OUR KEY MILESTONES

Launched in 2008 as the Canadian Partnership for Tomorrow Project (CPTP), CanPath has since made significant strides to establish a unique pan-Canadian cohort. National infrastructure has been established and the National Coordinating Centre [transitioned to the Dalla Lana School of Public Health](#) at the University of Toronto (U of T) in April 2019. The transition to U of T resulted in the growth of CanPath's national presence through a rebranding process and focused communications efforts to raise its profile amongst researchers. These efforts have led to year-over-year growth in requests to access CanPath data and biosamples.

After a decade's worth of federal and provincial investment, CanPath continues to grow and support research across Canada.



- 2008**  
Launch of CanPath (then known as CPTP); participant recruitment begins
- 2015**  
Initial baseline data becomes available to members of the research community
- 2018**  
New scientific home established at the Dalla Lana School of Public Health
- 2019**  
Recruitment begins for the Manitoba Tomorrow Project
- 2020**  
Identity rebrand from CPTP to CanPath; first follow-up data released
- 2021**  
COVID-19 questionnaire data released & Antibody Study begins
- 2022**  
Pilot for Healthy Future Sask begins



# OUR PROGRESS

The 2017-2022 Strategic Plan outlined a vision for a national CanPath cohort formed in partnership with the regional cohorts. The strategic goals aimed to:

1. Foster the **use and enrichment of the pan-Canadian platform** and operationalize through implementing a National Charter and a renewed governance and management framework.
2. Sustain the **dynamic evolution of the national platform** by enhancing the database through active re-contact and follow-up with participants, undertaking genetic and clinical chemistry analyses of the biological samples; and actively linking and integrating data with health system and related data as well as with data from other national and international programs or cohorts.
3. To **initiate and support a wide range of studies** exploring how lifestyle, the environment, the microbiome, epigenome, metabolome, and genomics interact and contribute to the development of cancer and other chronic conditions.

To achieve Strategic Goal 1, CanPath established a renewed governance model that included the formation of a National Coordinating Centre at the University of Toronto in 2019. Oversight and leadership roles were established, including the [National Strategic Advisory Council](#), which provides a forum for sponsors, funders and

key national organizations to provide advice and recommendations to the Executive Leads on the strategic direction of CanPath, and to help ensure the long-term sustainability of the platform. In addition, the International Scientific Advisory Board was renewed, and structures were put in place to provide leadership and to coordinate operational activities across Canada.

For Strategic Goal 2, CanPath launched its first [Follow-up Questionnaire](#) in 2016. Over 120,000 CanPath participants completed the questionnaire between 2016 and early 2019, providing updated information on their health and new information related to mental health and the use of marijuana, e-cigarettes, and over-the-counter drugs. Nationally harmonized datasets from the Follow-Up Questionnaire were made available to researchers in July 2020, enabling the investigation of changes in health conditions across the CanPath cohort.

In April 2020, CanPath responded quickly to the COVID-19 pandemic by leveraging its existing infrastructure to support national research. CanPath launched a [COVID-19 Questionnaire](#), which was distributed across the entire cohort, followed by a COVID-19 Antibody Study that collected [questionnaire](#)



[data](#) and [serology results](#).

Working with the Canadian Alliance for Healthy Hearts and Minds (CAHHM), [data on cardiovascular health](#) from over 7,700 CanPath participants has been made available to researchers. CanPath data is also linked to [environmental exposure data](#) provided by the Canadian Urban Environmental Health Research Consortium (CANUE). Measures of walkability, greenness and air quality are among the environmental exposure datasets made available to researchers via the CanPath Portal.

Furthermore, CanPath formed partnerships with the Canadian Institute for Health Information (CIHI) and Health Data Research Network Canada (HDRN Canada) to allow for access to linkage between

CanPath cohort data and administrative health data held at provincial data centres, allowing for passive follow-up over the course of participants' lives.

In alignment with Strategic Goal 3, CanPath has supported over 250 [research projects](#) and 200 [publications](#) in research areas including arthritis, cancer, diabetes, respiratory disease, heart disease, and more.

As the prior Strategic Plan was developed at the end of CanPath's initial building period, it focused on leveraging CanPath's assets to achieve the cohort's optimal value. Looking forward, the 2023-2027 Strategic Plan aims to continue expanding and enriching the platform, while promoting CanPath's key contributions to the Canadian health research landscape.



**330K+**  
PARTICIPANTS ACROSS  
CANADA



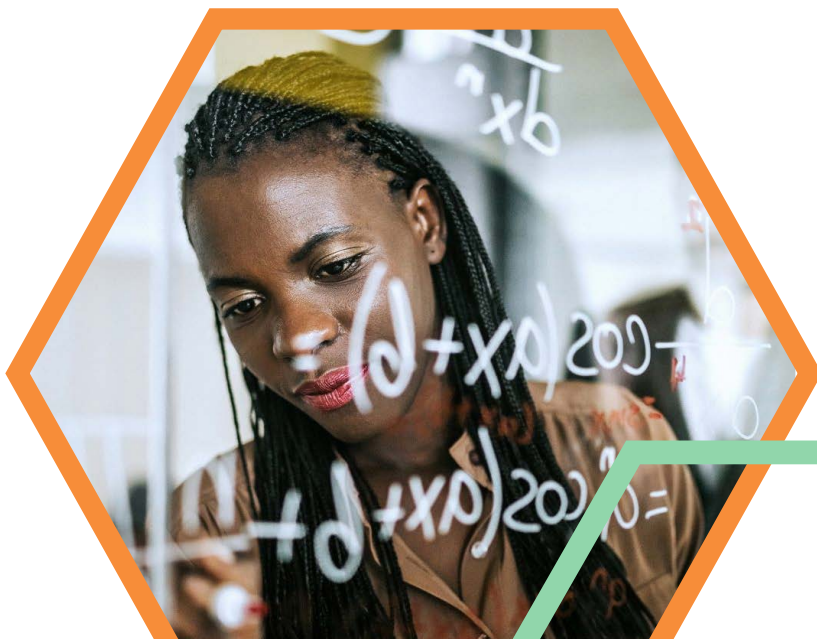
**250+**  
RESEARCH PROJECTS  
APPROVED



**3.8K**  
NATIONALLY  
HARMONIZED VARIABLES



**200+**  
SCIENTIFIC STUDIES  
PUBLISHED



# OUR STRATEGIC PLAN

## PLANNING & DEVELOPMENT

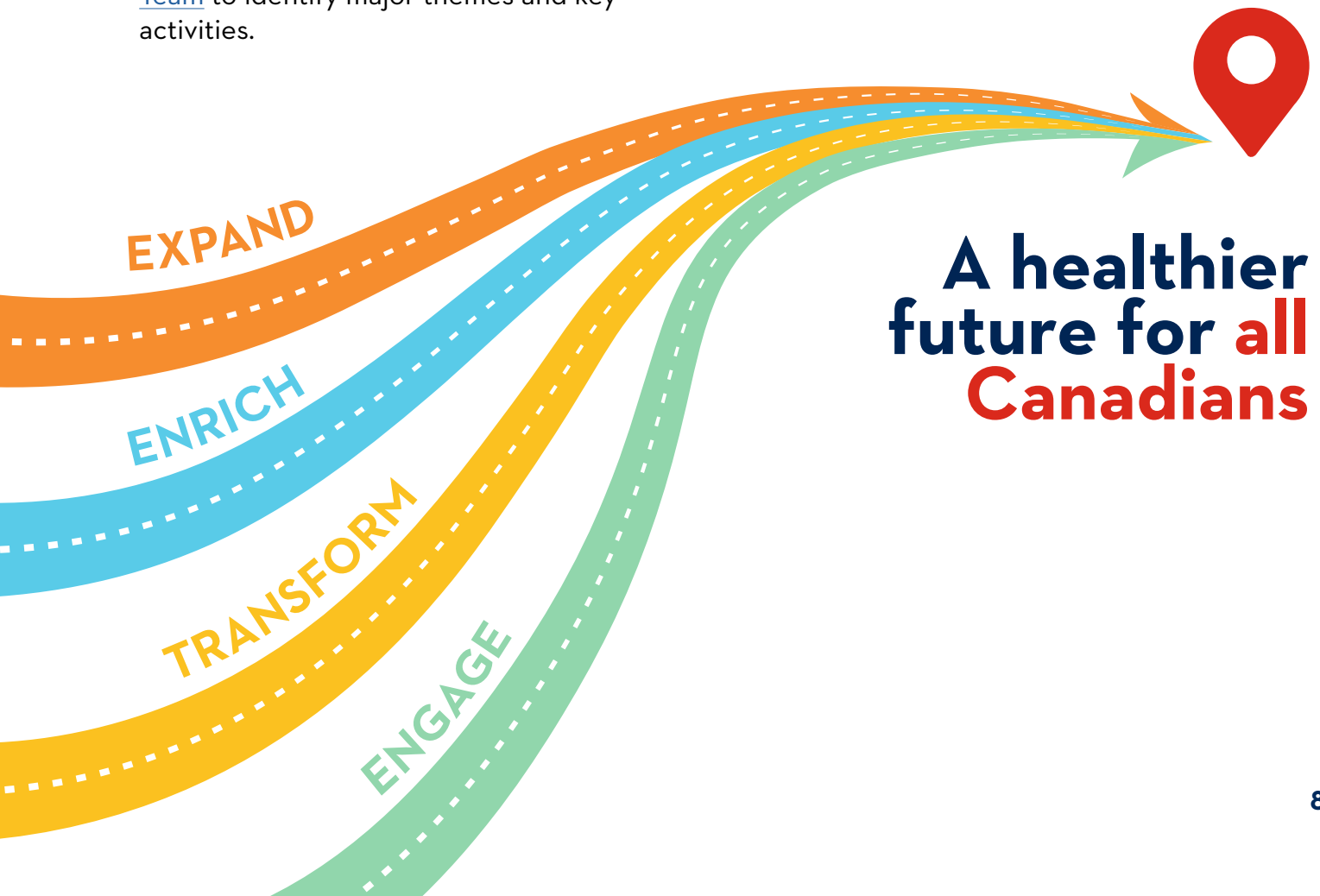
The development of the 2023-2027 strategic plan began in May 2022 with a SWOT (Strength, Weakness, Opportunity, and Threat) analysis conducted by the CanPath Operations Committee, consisting of scientific and operations leads across all cohorts. A survey was then sent to all CanPath internal stakeholders, including members of the International Scientific Advisory Board, National Strategic Advisory Council and all registered users of the CanPath data access portal. Results of the SWOT analysis and survey responses were distilled into a list of potential priority initiatives. These initiatives were reviewed and evaluated by the [CanPath Leadership Team](#) to identify major themes and key activities.

## ASSUMPTIONS

1. Achieving the goals outlined in the Strategic Plan is contingent on securing significant national funding for core operations and new scientific activities.
2. The CanPath strategic priorities are national in scope and work alongside regional cohort priorities.

## FOUR STRATEGIC PATHS

CanPath has identified four strategic Paths that will guide us through the next four years: **Expand, Enrich, Transform, and Engage**. While each path is distinct, they will be taken concurrently, ultimately leading to a healthier future for all Canadians.





# PATH 1: EXPAND

The initial recruitment of CanPath participants occurred more than 10 years ago and, currently, the average age of participants is 65 years. We also recognize that our participant base does not reflect the entire population of Canada, including gaps in representation from the territories and populations that are historically underrepresented in population cohorts. These gaps are not unique to CanPath, as it was recommended in the [joint report on population cohorts](#) from Genome Canada and the Canadian Institutes of Health Research (CIHR) to “increase the diversity of participants across Canada’s cohort landscape.” CanPath is well-positioned to leverage our existing partnerships to better reflect the diverse population in Canada.

We recognize that community engagement with First Nations, Métis and Inuit people is key to developing community-led cohorts in which data ownership and stewardship are critical features. CanPath will build on its collaboration with the Waakibiness Institute for Indigenous Health (WIIH) to be advised an Indigenous Advisory Circle for CanPath.

Path 1 includes the following aims:



1A

## Recruit additional participants to enhance the **representation of historically underrepresented populations**

CanPath can engage with experts in equity, diversity and inclusion to develop recruitment tools and methods that are accessible and inclusive to a wider range of the population. By doing this, we can help reach participants from all backgrounds and allow for future research to reflect the true diversity of Canada.

1B

## Identify partners in the **regions of Canada not yet included**

- Identify and work with **local champions** to develop new cohorts in the territories where one does not exist
- Collaborate with **other Canadian cohorts** to improve representation across the population

The inclusion of cohorts that represent all of Canada’s territories and regions will complete the CanPath map.

# PATH 2: ENRICH

Since its inception, well over \$120 million has been invested in building CanPath. By leveraging this investment to further enrich the platform, CanPath will remain at the leading edge of the largest international cohorts.

Path 2 includes the following aims:

2A

## Establish and maintain **national linkage** of cancer registry and administrative health datasets

CanPath participants have consented to ongoing linkage with administrative health datasets, but provincial regulations present challenges preventing the national use of these datasets. CanPath will work with the cancer registries and provincial data holders to allow nationally harmonized data to be available for researcher access.

2B

## Administer **follow-up questionnaires** regularly to enhance the data platform

A key feature of CanPath as a longitudinal cohort is our ability to collect information from participants over time. The administration of follow-up questionnaires is vital to enriching the CanPath data repository to enable researchers to uncover factors that contribute to the health or disease of Canadians over time.

2C

## Implement **individual measurement tools** (e.g., innovative apps) for new data collection

New technologies exist now that were not available at the time of CanPath's initial recruitment, which can provide new avenues for data collection. As such, CanPath will look to new and innovative measurement tools that can allow for easier and more robust data collection from participants. These tools may also provide an opportunity to return results to participants, a key for participant retention.

2D

## Enhance characterization of exposures such as by **dietary physical activity assessment**

Although currently available CanPath datasets contain several variables relevant to diet and physical activity, we have not yet conducted a national in-depth dietary and physical activity assessment. By engaging in this activity, CanPath can set itself apart as a world leader in this area by having one of the world's largest dietary and physical assessment databases.



# PATH 3: TRANSFORM

A unique feature that distinguishes CanPath from other large-scale population cohorts is our ability to allow external researchers access to our biobank of samples donated by over 150K participants. Our biobank becomes more valuable when we can add longitudinal samples. We also recognize that due to the cost of analyzing biosamples, researchers would be able to benefit from the biosamples if they were transformed into data that are made accessible through our harmonized datasets.

Path 3 includes the following aims:

3A

## Transform **existing biosamples into data** to further Canadian health research

- Genotyping/Whole genome sequencing
- Deep characterization of a subcohort (~30K participants) of historically under-represented populations in genomics research

CanPath will join leading international large-scale initiatives that have begun sequencing their cohorts but can be distinguished by focusing on deep characterization of a large subset of our participant base. Selecting a diverse population from CanPath will allow for a rich fulsome -omics database that rivals any other in the world.

3B

## Enable detection of changes in health and disease over time by collecting **serial biosamples**

This collection will enhance the biobank's longitudinal value. With regular collection, researchers can identify molecular changes over time that can lead to discovering new pathways and mechanisms involved in important health outcomes.

3C

## Unite the wealth of health data assets to create **nationally harmonized datasets**

- Create an enhanced data access/analysis platform via a cloud-based data safe haven
- Develop a streamlined process for aggregate data availability to users
- Optimize national access procedures to enable rapid and secure data dissemination to approved researchers

CanPath has revised our access procedures to expedite the application review and approval processes, but it is recognized that continued efforts will allow for timelier results and publications. As such, we aim to create a data safe haven platform and revise existing procedures to improve the speed of access and analysis of CanPath data while maintaining high standards of privacy and security. We predict that these changes will lead to an exponential increase in the number of approved access users, furthering the impact of CanPath data in the research environment.

3D

## Position Canada as an **international leader in health research** by growing genomic data assets built in collaboration with **industry partners**

CanPath is unique amongst large-scale population cohorts because the external research community may be able to access to our biobank. CanPath aims to collaborate with industry partners to enhance our genomic data assets, enabling experts from a wide range of disciplines to perform pivotal analyses.



# PATH 4: ENGAGE

CanPath has experienced significant strides in our impact on the health and research landscapes since national operations transitioned to the University of Toronto. These strides include a 300%+ increase in data access requests, exponential growth in publications using CanPath data, [webinars](#) offered five times per year, and publicity through coverage by major media outlets across Canada. There are ample opportunities for CanPath to continue growing our efforts to engage with the research community, policymakers and the public.

Path 4 includes the following aims:

4A

**Develop tailored knowledge translation communication materials for key audiences (researchers, public, participants, policymakers, etc.)**

With exponential growth in publications, research outputs have been immense, and CanPath's vastness means that its impact will continue for many years. By sharing research findings with key audiences, CanPath can complete the full cycle from discovery to action and impact. As CanPath progresses from recruitment and data collection to evidence delivery that transforms practice and policy, Canadians can benefit from the research findings. These deliverables range from plain language videos and presentations for the public to targeted policy briefs for government decision-makers.

4B

**Enable the participant voice to guide directions and enhance implementation (e.g., Town Halls, webinars, newsletters, in-person events)**

Our participants are at CanPath's core. After over a decade since their initial recruitment, participants are curious to learn how their data has contributed to new research findings. Maintaining active communication with participants is essential to ensure future participation and enables participant power to help guide our priorities. With sufficient funding, CanPath can implement more participant-focused events following the success of the [2022 Participant Town Hall](#). These events can include introducing in-person events to continue fostering a highly engaged and connected community of participants.

4C

**Enhance awareness and profile of CanPath to the Canadian and international communities**

CanPath will continue the active promotion of our resources to the widest research community through our new brand. This includes developing tailored promotions that inform specific research areas of the benefits of using CanPath data, maintaining CanPath's presence at scientific conferences and engaging with early career researchers.





# OUR FUTURE

With the CanPath 2023-2027 Strategic Plan, we are committed to fulfilling these four strategic directions of expansion, enrichment, transformation, and engagement. We are proud of the progress made over the last five years to create a national presence and to stimulate the use and enrichment of CanPath. Building on our achievements and the growing momentum of population cohort studies globally, we can leverage CanPath's unique position to situate ourselves as Canada's most valuable longitudinal cohort and a leader in the global population health landscape. With these strategic directions and our refreshed aims, we will continue to enhance the platform and transform our impact in Canada and globally.

*Working towards a healthier future for all Canadians*



# THANK YOU

The development of CanPath's 2023-2027 Strategic Plan has been made possible with the commitment and contributions of our diverse community of researchers, participants and partners across the country. Thank you for supporting our goals to prevent disease, improve health and provide a platform for scientists to conduct innovative research.





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