

TOMORROW'S NEWS

UPDATE ON ALBERTA'S TOMORROW PROJECT
ESTABLISHED IN 2000 TO LEARN MORE ABOUT CANCER AND CHRONIC DISEASE



ALBERTA'S
TOMORROW
PROJECT

Inspiring research for
a healthier tomorrow

VOLUME 10 | ISSUE 1 | WINTER 2021

Letter From Our Directors

Dear ATP Participants,

It has been 20 years since the creation of Alberta's Tomorrow Project (ATP), now the largest health research cohort study in western Canada. We're proud to say our vast repository of biosamples and data on the health history, lifestyle, and environment of our 55,000 participants has informed research across Alberta and Canada into the causes and prevention of cancer and chronic diseases. We thank all our participants who have been part of this amazing journey!

Although we are celebrating our 20th anniversary this year, like the rest of the world, we are faced with the unique challenges brought about by the COVID-19 pandemic. COVID-19 has changed the way we work as well as the direction of some of our projects.

In our last follow-up survey in 2017/18 we heard from a number of you, wondering why we were not asking about diet and physical activity. We heard you! We began 2020 with a plan for high-quality collection of Diet and Physical Activity information using multiple tools. Like others, these plans were waylaid by the pandemic. It quickly became apparent that the mighty engine of our research platform could assist the global endeavor to understand the direct and indirect effects of the pandemic.

As a research platform for cancer and chronic disease, this area is new to us. However, it's clear that infectious diseases, including COVID-19, affect people differently (e.g. those with underlying conditions like asthma or high blood pressure). The pandemic has changed the way we live our lives, and it will be important to understand how this moment in history will influence our health and wellbeing in the future.



*Dr. Jennifer Vena,
ATP Scientific Director*



*Shandra Harman,
ATP Strategic Director*

From June to August 2020, as part of the national Canadian Partnership for Tomorrow's Health (CanPath) family of cohort studies, we sent you a questionnaire on COVID-19 and the impact it has had on your lives. Thank you to the 19,000 of you who responded to this survey. The data you provided will help researchers understand the many ways COVID-19 has affected Albertans and Canadians.

In Summer 2020, we were asked by Alberta Health to conduct a study to test for COVID-19 antibodies in the Alberta population. To that end we have set up four study centres in Calgary, Red Deer, Edmonton, and Lethbridge and have invited up to 4000 of you to take part. Thank you to those who are participating - we appreciate your valuable time in coming into our centres for this study. You'll find more about these COVID-19 projects in this newsletter.

Through all of this, we have been guided by our amazing Participant Advisory Committee (PAC), comprised of 30 ATP participants who have provided invaluable feedback on our strategy, communications, and other work. Meet the PAC [here](#).

Our research team has continued to publish findings on data we have previously collected from you. One research project has looked at how accurately reporting food intake in diet surveys (which is challenging) can affect how well we can observe links between diet and cancer outcomes.

Lastly, if you change your address or email, please send us your new contact information at tomorrow@albertahealthservices.ca so we can continue to communicate with you. Thank you so much for your continued participation in Alberta's Tomorrow Project and enjoy our annual newsletter!

Best in health,

JENNIFER VENA, Scientific Director
SHANDRA HARMAN, Strategic Director

Alberta's Tomorrow Project

ATP gathers extensive data with COVID-19 survey

Data collected during the COVID-19 pandemic

Content included on the online COVID-19 questionnaire administered June - September 2020



Data collected from ATP COVID-19 survey

Alberta's Tomorrow Project, alongside the Canadian Partnership for Tomorrow's Health (CanPath) launched a survey in Summer 2020 to capture data on the COVID-19 pandemic.

2020 was a year that cast public health into the global spotlight. The COVID-19 pandemic significantly affected life here in Alberta, in Canada and around the world. There have been short-term and long-term effects on the health of our population directly but also indirectly, through mental health, social behaviour and the economy.

Thanks to our large cohort of engaged participants with documented pre-pandemic health and lifestyle histories, longitudinal studies like Alberta's Tomorrow Project (ATP) were uniquely poised to support the global effort of collecting information about how the pandemic is affecting us.

ATP, as a collaborative member of the pan-Canadian population health study Canadian Partnership for Tomorrow's Health (CanPath), collected comprehensive information from participants by creating and sending out a cohort-wide questionnaire to our participants.

"Thank you to over 19,000 participants who completed the survey!" says Dr. Jennifer Vena, Scientific Director. "We will be unraveling the effects of the pandemic for years to come. Yes,

there have been many challenges, but your data and comments also indicate that there have been some positive aspects along the way."

With the support and guidance of our Scientific Advisory and Steering Committees, our Participant Advisory Committee, and the other cohorts of CanPath, we created a questionnaire that collected information for future analysis at provincial, national and international levels.

Our questionnaire was offered online to participants to ensure speedy collection in a cost-saving manner in Summer 2020. We collected information about COVID-related symptoms, effects on mental health, levels of stress, coping behaviours, access to resources, impact on employment and income, and changes in behaviours like nutrition, physical activity, smoking and alcohol.

There is a lot of value in capturing this information. Initially, Alberta's health system focused on capturing COVID testing, hospitalization and other health indicators in patients. As the effects of the coronavirus became more well known, it became evident that future research would require more comprehensive data that could provide enhanced insights on a variety of COVID-19 related outcomes.

For example, data from the COVID questionnaire will also potentially contribute to understanding correlations between infectious diseases like the coronavirus and cancer and chronic diseases, and fill gaps for researchers to understand the short- and long-term effects of this pandemic.

The COVID-19 survey launched in June 2020 and closed in September 2020. Over 19,000 ATP participants completed the questionnaire. The CanPath COVID-19 questionnaire dataset is now available to researchers and includes over 101,000 participant responses collected across Canada, including data from ATP participants.

ATP study centres launch in Calgary, Edmonton Red Deer and Lethbridge to test for COVID-19 antibodies



The Calgary COVID-19 Antibody Testing Study centre

In Summer 2020, Alberta Health selected Alberta's Tomorrow Project to conduct a study to assess the spread of the COVID-19 virus in Alberta. The COVID-19 Antibody Testing (CAT) study detects the presence of antibodies in blood, which in turn indicate whether the body has developed an immune response to the COVID-19 infection.

The CAT study launched in September in Calgary. ATP began to invite 4000 of our participants over the age of 40 to join the study by visiting one of four study centres in the Calgary, Edmonton, Red Deer, and Lethbridge areas to have their blood drawn. Participants were invited based on target criteria. The blood samples are collected by our team for a period of one year, once every four months, to test for COVID-19 antibodies to estimate the number of Albertans who have been exposed to COVID-19 and to follow the trend over time. We will also be able to look at effects of the vaccines, so if you are a participant in this study and have received your COVID-19 vaccination, we encourage you

to continue in the study.

"We're very grateful to our dedicated participants who have volunteered their time to be in this study," said Dr. Jennifer Vena, Scientific Director, Alberta's Tomorrow Project. "This work is important to understand exposure to COVID-19 in the Albertan population and how this changes over time. COVID-19 is a problem that is affecting everyone in the province in one way or another right now, and we can be part of finding answers which is really exciting."

This study is one of four targeted serological research studies to test people throughout the province; two other studies (based in Calgary and Edmonton) focus on children and the fourth study inspects samples collected through the provincial labs.

Participants were selected based on target criteria. Due to the limited size of this study, participant selection is now closed. If you are interested in participating in future studies, please visit our [website](#) for updates.

Participant Advisory Committee launched successfully in 2020

To ensure we are getting the participant perspective, ATP developed an advisory committee consisting of a small group of our participants to provide their voices and input.

Thirty ATP participants were invited to join the first ATP Participant Advisory Committee (PAC) in 2020. This selection was informed by in-depth research into the role of patient and participant advisory committees in the health sector. After taking a survey of interest, ATP interviewed over 400 participants and invited into the committee 30 members who come from different walks of life and can provide a variety of viewpoints. All thirty accepted!

"We realized almost immediately that having a participant advisory committee is a fairly new and innovative strategy among long term studies," said Dr. Grace Shen Tu, Research Lead. "The feedback from our participants as well as our research showed us that there are great benefits to be had."

The first PAC meeting was planned to be an in-person meeting in March 2020, but due to the pandemic, this was held online instead.

How has the knowledge of PAC members helped ATP? They have contributed greatly to our work, including our COVID-19 related studies: the cohort-wide COVID-19 survey conducted in collaboration with our national partner, Canadian Partnership for Tomorrow's Health (CanPath), as well as the COVID-19 Antibody Testing (CAT) study commissioned by Alberta Health. Their input has shaped the content and clarity of provincial and national COVID-19 surveys, as well as the logistics of opening our CAT study centres. Their ideas helped ATP identify potential issues related to participant comfort and safety.



*Sandyne Beach-McCutcheon,
Co-Chair of the Participant Advisory Committee*



*Ron Guidinger,
Co-Chair of the Participant Advisory Committee*

To date, the committee has met four times virtually in 2020, once every quarter.

"We have begun building a strong working relationship with the committee," said Dr. Shen Tu. "Their enthusiasm for ATP is contagious and we draw inspiration from them. We look forward to continuing work with them."

In 2021, the PAC will continue to provide guidance on the ATP COVID-19 Antibody Testing in addition to other ATP priorities.

Although the committee is now full, membership in the PAC is termed, and as members leave, new members will be invited to join the committee. More information about the PAC can be found [here](#).

Our PAC Co-Chairs, Sandyne Beach-McCutcheon and Ron Guidinger reflected on the past year.

Sandyne Beach-McCutcheon, Co-chair:

For all of its shortcomings, 2020 pushed pause long enough for me to be reminded of the potential for small efforts to have a big impact.

That possibility is what drew me to participate in Alberta's Tomorrow Project (ATP) many years ago. It was rewarding to realize that the input I was providing, joined with that of many others, could help scientists, researchers and physicians better understand why some people develop cancer and other chronic conditions and some do not.

Joining others on the newly formed Participant Advisory Committee (PAC) was a natural extension of effort, only this time we have the opportunity to impact the experience of present-day ATP participants.

Bring on 2021 - Let's see where our collective efforts take us!

Ron Guidinger, Co-chair:

Participating in the PAC meetings together with the ATP Staff has been fun, thought provoking and gratifying. Each time, I am struck by the diversity and richness of the inputs generated and the skill, knowledge, and grace with which they are received by the ATP Staff participants. Collectively, we have pulled together positively and energetically to progress the work of Alberta's Tomorrow Project.

The impact of COVID-19 on chronic diseases: A new chapter in ATP's Research

There is growing evidence that the link between infectious disease and chronic disease is stronger than we know

Recent years have seen growing exploration of the link between infectious diseases and chronic diseases. Research shows some viruses can increase your risk of developing long-term illnesses like certain cancers. For example, the human papillomavirus (HPV) increases the risk of developing cervical cancer, and hepatitis viral infections (e.g. Hepatitis C) may increase risk of liver disease, liver cancers and cardiovascular disease. In addition, people with chronic conditions can be at greater risk of contracting some infections and can experience more severe infections. For example, people who have diabetes are at increased risk of getting urinary tract, skin, and respiratory infections.

This new direction in chronic disease research is especially significant considering the COVID-19 pandemic. Data gleaned during the pandemic suggests that people who have a chronic disease like kidney disease, lung disease, heart disease, high blood pressure, liver disease, diabetes or obesity, are at increased risk of severe illness if infected with COVID-19.

Here at Alberta's Tomorrow Project, we aim to research not only cancer but also chronic diseases to better understand how they occur and can be prevented. In the last year, you may have completed our COVID-19 survey, or participated in our COVID-19 Antibody Testing (CAT) project. The data we collect from you will help researchers to understand the long-term impacts of infections like COVID-19 on cancer and chronic diseases.

"ATP and longitudinal studies like us around the world have mobilized to collect data on demographics, chronic conditions, and lifestyle risk factors from our participants," says Dr. Grace Shen Tu, Research Lead. "Our collection of this data at both the provincial and national levels will likely prove key to research on chronic disease for years to come."

Living through the COVID-19 pandemic has changed our typical health behaviors like sleep and physical activity in both positive and negative ways. Research is underway to learn how such changes affect our risk of developing chronic diseases. On a positive note, the pandemic has encouraged some healthy behaviours like outdoor exercise and cooking at home.

"We have yet to fully understand the long-term effects of COVID-19 on Alberta and Canada's populations," says Dr. Shen Tu. "However, the continued participation of our cohort in these projects will inform the development of more comprehensive infectious and chronic disease prevention initiatives."

Alberta's Tomorrow Project Turns 20!

Alberta's Tomorrow Project has turned 20 years old! As we mark the 20th anniversary of our 50-year study, we celebrate two decades of data collection, contributions from our engaged participants, and of looking to the future.

ATP was started with the vision of creating a living thermometer of Albertans' health for many years to come. Since then, we have grown to become the largest health research study in Alberta's history.

We are excited about all we have accomplished in this time. By collecting vast amounts of data from participants, we have provided the research community with valuable insight into the ways health, lifestyle, genetic, and environmental factors interact to influence health over time. Researchers across Canada and worldwide are using the ATP cohort to better understand the factors that cause cancer and chronic disease. We have published a variety of papers in collaboration with other researchers and explored innovative new areas like the BioNUGUT sub-study (which collected stool samples to look at the microbiome).

ATP aims to be strategic and innovative; we pride ourselves on continually improving our survey collection process and maintaining the quality of our data and samples as we look to keep growing. We strive to create meaningful partnerships to advance the platform and capabilities to conduct meaningful research.

As ATP continues to grow and set the course for continued innovation, we look forward to progressing our platform further over the next 20 years to provide enriched data that supports cancer and chronic disease research.

"We are so thankful to our 55,000 participants who have helped build ATP into the research platform it is today, as well as our host institution (Alberta Health Services) and funders (Alberta Health, Alberta Cancer Foundation, and the Canadian Partnership Against Cancer) who believed in the vision of a research platform," says Dr. Jennifer Vena. "This would have been impossible without that support."

We invite you to visit our website and follow us on Twitter this year as we look at ATP's achievements and future endeavors through interviews, videos, and other resources we create this year to commemorate our journey. Happy Birthday ATP!



Nicole Kitson, ATP Participant

Participant joined ATP to honour family

When Nicole Kitson lost her grandmother to pancreatic cancer, she decided to find a way to honour her `Oma`.

"I was travelling in Australia at the time and I never got to see her again," Nicole says. "I was interested in doing something to honour her and make a difference for other people."

Although Nicole wasn't yet old enough to be a participant when she first learned of Alberta's Tomorrow Project, the mother of two felt that joining the fifty-year study could help contribute to research in the fields of cancer and chronic disease.

She signed up as soon as she turned 35 and has been a participant ever since.

"It's been a really good experience," she says. "I like that the study is so long-term that you can see the impact that the research has on cancer outcomes."

In the years since losing her grandmother, Nicole lost her mother-in-law to cancer, and her sister-in-law was diagnosed with the disease and survived.

"It makes me feel good that in honour of my loved ones who are facing cancer, I can do something to help," she says. "The time commitment for the study is not very much, and (this participation) is really what needs to be done to make a difference for cancer."

Most recently, Nicole also completed ATP's COVID-19 survey in the summer.

Nicole is also encouraged by the fact so many fellow Albertans are participating in the project. "It amazes me so many people have given their time and information to try to make a difference for people," she says. "It's great to see the data coming out of the project as there just aren't that many long-term studies like Alberta's Tomorrow Project."

ATP research reveals how misreporting can mask the connection between diet and disease

If you are an early participant of Alberta's Tomorrow Project (ATP), chances are you filled out the Canadian Diet History Questionnaire (CDHQ) that was sent between 2001 and 2009. This questionnaire asked how often you ate and drank a variety of foods and beverages over the past year. We know diet and nutrition are important for health, but we still have a lot to learn about how different eating practices relate to risk of cancer and chronic diseases.

One of the issues nutrition scientists struggle with is getting accurate reports of what people eat. Understanding this is complex - it can change from year to year, season to season, even day to day, and we eat and drink many different types and combinations of foods. So, we rely on tools that try to assess how and what people are eating overall.

A common challenge is that it can be difficult to remember the exact amounts and types of food we ate months ago, and to mentally estimate portion sizes. Your reported food intake may look different from your actual food intake. This common occurrence, known as 'misreporting', can affect interpretation of the dietary data we collect.

One reason this is important is because misreporting can create 'noise' in the data, which affects the relationships observed between dietary intake and outcomes like risk of cancer or chronic disease; this may mean that we miss important relationships that exist but are muffled due to the noise in the data. To try to get at the true relationships, researchers try to find ways to adjust for misreporting.

ATP researchers published results from studying this 'misreporting' effect using data from over 26,000 ATP participants. The study used a statistical method to determine the magnitude of misreporting of food intake in the data and whether this had affected interpretation of the diet information we collected. The statistical method uses other information provided by participants to compare reported food intake against the average energy required for life i.e. the energy that someone of your age and gender and physical activity level typically expends. If the reported level is much lower or higher than these estimated energy levels, researchers calculate what needs to be adjusted.

"Our analysis allows us to take this misreported data out of the picture and see what the adjusted data is telling us," says Alianu Akawung, one of the lead biostatisticians of this study.

The dietary data was linked to the Alberta Cancer Registry to determine how many participants had been diagnosed with any type of cancer since completing the diet history questionnaire. When analyzing the data, it was found that women whose dietary pattern contained more sweets and dairy compared to other patterns were at greater risk of cancer once the misreporting had been adjusted. The researchers concluded that misreporting can indeed mask possible associations between diet and disease.

Another paper that is underway uses the same data to compare the effectiveness of two different statistical methods to adjust for misreporting.

"Research like this contributes to our awareness of the ways in which misreporting can affect how well we can identify diet and disease associations," says Akawung. "Determining the best method to adjust for this effect can help clarify the role that dietary patterns play in diseases like cancer."

View our handy reference to [estimate portion sizes](#).

PLEASE HELP US KEEP YOUR FILES UP TO DATE

Have you moved, retired, changed your email address or phone number? Take a moment to update us with your new contact information.

Staying in touch with participants is important for the project's success!

Keeping current participant contact information reduces the number of participants who are "lost to follow up."

Please take a moment to notify us with any changes or additions to your information. Even if you move outside of Alberta or Canada, you can still remain a participant!

CONTACT US

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Outside Canada: [1 403.955.4617](tel:14039554617) (Collect calls accepted)

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For more information visit: myATP.ca

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