





CANCER RESEARCH & ANALYTICS

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Important work is being done

ACCELERATING CANCER RESEARCH INTO ACTION

Created in 2018, the Cancer Research & Analytics (CR&A) portfolio was conceived as a scientific investigative hub with a direct line of sight to the people most closely affected by the disease. Embedded within Cancer Care Alberta in Alberta Health Services (AHS) – Canada's first and largest province-wide, fully-integrated health system -CR&A has unique proximity to clinical practice, raising and answering important patient-focused research questions across the entire cancer continuum.

From discovering more about how the disease starts and progresses, to better prevention and earlier detection, to providing more targeted treatment and stronger support for patients, families and caregivers, CR&A researchers and data experts are exploring impactful, innovative, and sustainable ways to help people in Alberta who face cancer now, and in the years ahead.

CR&A'S DUAL AND INTERTWINED GOALS:

- To conduct and support innovative cancer research
- To provide advanced analytics expertise to accurately interpret the massive health data assets available within Alberta and beyond

PORTFOLIO OVERVIEW

OUR MISSION

Accelerating cancer research for all Albertans

WE:

Conduct, support and promote research and nurture a culture of enquiry

Work close to clinical practice

House critical and massive data assets that can be linked

Provide expertise to interpret complex data

Strive to improve the health of Albertans and the health system itself

PORTFOLIO OVERVIEW

Within Cancer Research & Analytics, we promote, conduct, and support scientific exploration

Discover Support Accelerate

STRATEGIC INITIATIVES 2022-2025

- Culture of Curiosity: Making it easier to ask and answer cancer-related questions Build and nurture a culture of exploration that will encourage innovative investigation, to enhance the value of cancer care and increase impact for Albertans
- Data at Work: Building Advanced Analytics for Cancer Create the infrastructure, environment and capacity needed to optimize the collection, interpretation and use of cancer data for better cancer outcomes and experiences
- Powerful Partnerships: Pulling together to accelerate progress in cancer care Harness the power of collaboration with strategic partners to enhance funding and other supports, maximizing resources and establishing Alberta as a prime meeting place for all those involved in cancer research and innovation





DR. PAULA ROBSON Scientific Director, Cancer Research & Analytics Cancer Strategic Clinical Network

The past two years have brought opportunity and challenges to the world of cancer research and analytics. Thanks to the creativity and expertise of the people within our portfolio, significant new partnerships have been established and existing ones strengthened. Initiatives such as the creation of the Prairie Cancer Research Consortium, part of the Terry Fox Research Institute's Marathon of Hope Cancer Centres Network program, and the 2021 Alberta Cancer Research Conference, are forging new collaborations to better share collective knowledge and build on areas of expertise across Alberta and beyond. Our goal remains generating evidence and applying knowledge to improve care while respecting the needs and perspectives of people facing cancer.

RESEARCH PARTNERSHIPS & INVESTMENT

Enabling new discovery through guidance and structural support

Building on early key strategic priorities within CR&A, the Research Partnerships & Investment team was established in 2021 to help forge new partnerships between providers, patients, families, research institutions and members of industry, and spark connections that make it easier for cancer clinicians and others in the health system to ask and answer questions driven by what they see every day.

We seek out and cultivate strategic partnerships

Simplifying how complex research is described and shared

Cancer research success depends heavily on expertise, innovation, collaboration, funding, and fundamentally, clear communication. Plain, engaging language helps future collaborators, funders, government partners and the public at large understand the nature and value of the research underway, and its potential impact.

The Cancer Research & Analytics leadership team is committed to simplifying the way complex research is described for all audiences. Working with researchers and analysts, consulting on presentations and official documents, the goal is to share the value of innovative cancer research. In this way, discoveries made every day can be more easily translated into practice, on behalf of Albertans facing cancer.



Our work can involve linking up clinicians with data scientists and experienced researchers to help refine a question or execute a high-quality study. We also connect research teams with dedicated administrative experts who know how to get projects off the ground as efficiently as possible.

We see great value in nurturing existing relations with philanthropic agencies, like the Alberta Cancer Foundation, as well as creating new partnerships that are interested making investments in accelerating the pace of cancer research and inquiry in Alberta.

CHRIS NORMANDEAU Executive Director Cancer Research & Analytics

CANCER STRATEGIC CLINICAL NETWORK

Using CR&A data and expertise to transform cancer care

Strategic Clinical Networks (SCNs) were established in 2012 by Alberta Health Services to bring together multiple partners to examine pressures on the healthcare system and find innovative and evidence-based ways to improve care.

Members of the Cancer SCN (CSCN) come from a variety of disciplines and perspectives, including clinicians, patients, researchers, policy-makers and industry leaders. They work collaboratively to design strategies to address priority needs and improve outcomes.

Cancer Research & Analytics plays a key role in supporting the Cancer SCN's mandate to move evidence into practice, gathering province-



wide cancer data and providing the analytics expertise required to help design and evaluate the impact of innovative solutions.

MAJOR PROJECTS INCLUDE:

• The Future of Cancer Impact (FOCI) in Alberta report

An aging and growing population, coupled with greater cancer survivorship, is leading to more people living with cancer in Alberta; these steadily increasing numbers are likely to result in evolving challenges for how cancer treatment and care are delivered. The FOCI report will stimulate and inform discussions, ultimately supporting innovation and action around the future of cancer care in Alberta.

Alberta Cancer Diagnosis Initiative

To shorten the time between a first symptom of cancer and a diagnosis, the Cancer SCN is working with partners, including Albertans and Primary Care, to design a single point of access for all cancer diagnosis pathways, timely and appropriate diagnostic work-up and referrals, and supports for primary care and patients. This work strives to integrate research and process improvement, ensuring that new knowledge generated throughout the initiative will be shared broadly within and beyond Alberta.

The Cancer SCN's mission is to "Lead transformation to improve care across the cancer continuum in Alberta". Its strategic directions are rooted in building community to transform care, enhancing experiences for patients and families, and translating evidence and data to inform systems transformation.

The work of CR&A and the Cancer SCN is highly synergistic, such that the complementary skills and expertise contributed by each team and external network partners can be harnessed to accelerate innovation. CR&A provides its data and analytics capacity to inform the Cancer SCN's work in identifying system gaps and developing and testing new solutions designed to improve care.

Partnerships with researchers in the academic community bring additional academic rigour and critical thinking to help generate knowledge that drives innovation.

Working together, the Cancer SCN and CR&A will accelerate progress towards improving outcomes and experiences for people facing cancer.

DR. PAULA ROBSON Scientific Director

We listen to patients

Photo courtesy of the Alberta Cancer Foundation

It's completely overwhelming when you get a cancer diagnosis. As family members, we are right there with our spouse, child or sibling throughout the course of treatment. Our team includes the wonderful nurses, physicians, and support staff, and we are partners in this together. I've become a family advisor to raise the voices of patients and those of us who care for them, to help our perspectives to be recognized - and considered - every step of the way.

DON WOOD, HUSBAND AND CAREGIVER TO SHERRY WOOD

Don and Sherry Wood and son Anderson

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and

patagonia

New ideas are born here

EXPERIMENTAL ONCOLOGY

Explorers at work

WHERE NEW IDEAS ARE BORN AND TESTED

Within Experimental Oncology, scientists are navigating two main streams of work: discovery research into the primary differences between cancer cells and normal cells, and translational research exploring how cancer prevention, diagnosis and treatment discoveries can be moved into practice. Embedded within Edmonton's Cross Cancer Institute, Experimental Oncology researchers have regular contact with patients, and with medical physicists, pharmacists, oncologists, surgeons, and other cancer scientists within academic institutions like the University of Alberta and University of Calgary.



The result is fertile ground for raising and exploring new research questions that emerge in everyday clinical practice.

Cancer occurs when changes to the genes within cells cause uncontrolled cell growth or division. Our scientists are working to understand how genes and changes in DNA might affect the risk of developing cancers of the breast, brain, skin, and blood. We also work on prostate cancer, childhood cancers, and colorectal cancer.

We are fortunate to work within a comprehensive cancer centre with the resources to carry out state of the art cancer research; at the Cross Cancer Institute it is true teamwork, with students, technicians, post-doctoral fellows, research associates and scientists working together to improve our understanding and treatment of cancer.

DR. ROSELINE GODBOUT Director, Experimental Oncology



EXAMPLES OF OUR WORK INCLUDE THE STUDY OF:

- Repair of DNA damage caused by ionizing radiation and chemotherapeutic drugs
- Epigenetics how external factors such as diet, age, or drug exposure – may affect the genes involved in cancer
- Viruses that target tumours, and their potential for treating cancer
- Membrane transporters (proteins which help molecules enter or leave cells) and their role in drug transport and resistance

EXPERIMENTAL ONCOLOGY

Senior experimental oncologist and University of Alberta professor Dr. Michael Weinfeld is part of a team developing nanoparticles to help deliver diagnostic or therapeutic agents directly to a tumour while bypassing normal cells

If you can physically target treatment right to the tumour cells, leaving healthy cells untouched, or make cancer cells more sensitive to radiation and cancer drugs, that's what we're after. Finding those key differences between the two types of cells. This kind of work is enabling precision medicine, where specific treatments can be much more effective for different patients.

DR. MICHAEL WEINFELD, EXPERIMENTAL ONCOLOGIST

Photo courtesy of the Alberta Cancer Foundation

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EXPERIMENTAL ONCOLOGY

Letting scientists see cancer

CELL IMAGING FACILITY

Housed within Edmonton's Cross Cancer Institute, the world-class Cell Imaging Facility plays a major role in helping researchers view the most minute objects. More than 15 different platforms, including several light microscopes, and one electron microscope are here, enabling 3-dimensional visualization of molecules in cancer cells, including those involved in DNA damage and repair.

Available for researchers within Alberta Health Services, the University of Alberta, or for hire by external scientists within Canada and beyond, the shared resource supports hundreds of research projects and has trained and collaborated with more than a thousand colleagues.

Among the many notable research projects is the discovery and study of several human nucleotide transporter proteins, one of which has become a biomarker for breast cancer treatment and is now in a Phase 3 clinical trial. Like stargazers, we are cell gazers. We help researchers examine not just the individual molecules in cells, but how those molecules work together as a functional, living group. We need that higher level view to truly understand how healthy cells, and those in a disease state, function.

DR. XUEJUN SUN Manager, Cell Imaging Facility Recipient of inaugural ACRC Accelerator award

Confocal microscope image of solid tumour showing areas of low oxygen (in green), which are highly resistant to chemotherapy and radiotherapy. Novel staining method developed by Dr. Michael Weinfeld's team, Cross Cancer Institute



Collection and storage of valuable cancer specimens

The Alberta Cancer Research Biobank (ACRB) is a comprehensive resource available to researchers for the collection, processing, storage, and distribution of high-quality biospecimens, with a mission to facilitate transformative cancer research and lead innovations in biobanking.

The ACRB houses both open-access and investigatordriven collections from a variety of cancer types, including blood fractions, frozen tissue, Formalin Fixed Paraffin Embedded (FFPE) blocks, Tissue microarrays (TMAs) and live-cell collections. The ACRB will help investigators to consent, collect and process high-quality samples for cancer research. Open-access biospecimens complete with clinical data linkage are available, by application, to qualified researchers to support progressive cancer research.

ACRB provides the safest possible storage for these invaluable sample collections within a secure, state of the art facility. Each sample within the ACRB is treated as if it holds the key to improving cancer diagnostics, treatment and outcome, thanks entirely to the thousands of participants who have selflessly donated biospecimens to support research.



Biobanking is an essential tool in cancer research. It provides both the samples and clinical information necessary for meaningful and transformative research across the continuum of cancer prevention, early detection and treatment. It is the goal of the ACRB to assist researchers to obtain these high-quality tools that are so needed to improve the treatments and outcomes of Albertans living with cancer.

DR. KATHRYN GRAHAM Manager, Alberta Cancer Research Biobank

ALBERTA CANCER RESEARCH BIOBANK



Information about the program and access guidelines for researchers is available at acrb.ca



Our company, Syantra Inc., has developed a blood test to screen for breast cancer. To demonstrate this new method of cancer detection, we needed to run clinical studies in a number of locations. The Alberta Cancer Research Biobank (ACRB) has provided a range of services to support these prospective studies. Working with the biobank has allowed us to remain at arm's length from study operation and data, while being confident it's being managed and compiled with the rigour and professionalism needed for scientific and regulatory purposes. The ACRB has been a tremendously valuable resource for us, and will remain so as we move forward.

DR. KRISTINA RINKER Chief Scientific Officer, Syantra Inc.

CANCER EPIDEMIOLOGY & PREVENTION RESEARCH

Reducing cancer burden through innovative epidemiologic research

Cancer Epidemiology & Prevention Research (CEPR) scientists are focused on reducing cancer burden at the population and individual level. Studying the population at large, they use a broad range of data – including demographic, medical, biologic, genetic, and physiologic data as well as information on lifestyle, occupational and environmental exposures – to track how cancer develops and how risk may be reduced. Through observational and experimental studies, CEPR research spans the entire cancer continuum from etiology and prevention, through to treatment and survivorship.





We are conducting nationally and internationally-recognized research that is delineating the causes of cancer and how we can reduce the burden across the entire continuum from prevention through to survivorship. Our research is being used by cancer agencies worldwide to develop guidelines, programs and policies with the aim of creating a future without cancer.

DR. CHRISTINE FRIEDENREICH Scientific Director, Cancer Epidemiology & Prevention Research



Learn more about CEPR's ongoing research at cepr.ca

CANCER EPIDEMIOLOGY & PREVENTION RESEARCH



The ComPARe study. examining the number of cancer cases in Canada now and to 2042, that could be prevented through modifiable factors like diet, physical activity, obesity and smoking, infectious elements and environmental exposures



The Alberta Moving Beyond Breast Cancer (AMBER) cohort study, that is examining how physical activity and fitness are related to long-term survival after breast cancer

Addressing higher cancer Z rates in Indigenous Peoples by assessing participation in breast, cervical and colorectal cancer screening programs

The Alberta Adolescent and Young Adult Cancer Survivor Study is following almost 25,000 young cancer survivors diagnosed between the ages of 15-39, to assess their long-term healthcare needs and outcomes

Evaluating the impact of carcinogenic exposures, such as radiation, chemicals, or exhausts, in the workplace to reduce the risk of cancer

Examining the impact of obesity, physical activity and sedentary behavior on future cancer risk and patient outcomes in cancer survivors, in particular the value of exercise as "prehabilitation" for better survival through cancer treatment



Cancer in adolescence and young adulthood (AYA) is important to study because these individuals fall in the crack between pediatric and adult oncology, and face unique challenges due to being diagnosed during critical development, social, and reproductive years. By engaging AYA cancer patients in our research, we are working together to improve care and outcomes - from diagnosis to survivorship and palliative care - for both the patient and their support networks.

DR. MIRANDA FIDLER-BENAOUDIA Research Scientist, **Cancer Epidemiology** & Prevention Research

We are working together to improve care and outcomes

Learn more about: ComPARe: prevent.cancer.ca and AMBER: amberstudy.com







MOVING DATA TO ACTION

DATA DELIVERS EVIDENCE TO DRIVE BETTER CANCER PREVENTION AND CARE

Information is the new currency in healthcare, building knowledge which propels action to improve patient outcomes.

Collecting and using high-quality, reliable health data – and drawing accurate conclusions from massive, complex databases – requires expertise and straightforward access.

Cancer Research & Analytics is creating a new and comprehensive data environment, enabling unprecedented access to linked data on cancer incidence, diagnoses, treatment, survivorship and some health and lifestyle factors. As a result, CR&A experts will be able to optimize analytics capacity and support – using broad cancer data to improve the health system itself, and support people in Alberta facing cancer. High-quality data creates evidence which leads to knowledge and action

Advanced analytics expertise is necessary to decipher trends in cancer data

CANCER ADVANCED ANALYTICS

Expertise and streamlined access to interpret crucial cancer data

In 2021 Cancer Research & Analytics launched a major initiative, restructuring its expert analytics teams to more efficiently collect, link, and study cancerrelated data. The change supports the rapidly evolving data needs of clinical teams, quality improvement (QI) practitioners and cancer researchers within Cancer Care Alberta, and beyond. Bringing together the Alberta Cancer Registry, Data Integrity and Integration, and Surveillance & Reporting teams, the move enables better integration of data systems and more efficient linkage between existing data platforms.

The goal: increase capacity to manage an ever-increasing number – and greater complexity of data analytics to support cancer research, quality improvement and clinical care.

Better data supports better decisions



Our current system is complex and our future DECIDe system will be even more complex. By creating a new data environment, we will streamline the data gathering, analysis and interpretation. The complexity will still exist but by automating linkage, assuring data quality and standardizing documentation, the scope of what can be analyzed will increase.

Collaboration between data scientists, clinicians and other stakeholders is key. New insights can be revealed and built upon, supporting the best decisions to improve patient outcomes and research. These partnerships enable discoveries and opportunities that would not be feasible when attempted alone.

DR. LORRAINE SHACK Director, Advanced Analytics

DECIDe – STREAMLINED ACCESS TO ALL CANCER PATIENT DATA FROM MULTIPLE SOURCES

An extensive new data environment is being established to streamline data integration, access, and usability across several existing platforms. The first of its kind in Canada, the new Data Environment for Cancer Inquiries and Decisions (DECIDe) creates a single environment of comprehensive, linked, cancer patient information for all of Alberta's cancer patients. The result? Shorter timelines to gather meaningful data for scientists exploring complex research questions as well as supporting quality improvement initiatives within the cancer healthcare system. The new data environment will also capitalize on the ongoing implementation of Connect Care, a province-wide clinical information system (CIS) which will provide a single electronic health record (EHR) for every AHS patient in Alberta.



SURVEILLANCE & REPORTING – FUTURE DIRECTION



SURVEILLANCE & REPORTING

Deciphering critical cancer data

Surveillance & Reporting (S&R) analysts are experts at tracking and making sense of extensive clinical, operational, and patient outcome data related to cancer. These data sleuths assist in the interpretation of cancer rates, outcomes for leading treatment, trends in patient visits to hospitals, and more. Surveillance & Reporting analysts, epidemiologists and statisticians work with researchers within and outside of Alberta to navigate an ever-expanding sea of complex data, and extract valuable insights from their findings. Whether conducting research for Cancer Care Alberta (CCA), or facilitating that of external scientists and government health officials, S&R's advanced analytics team provides the solid evidence and collaborative interpretation required to support better cancer prevention, diagnosis, treatment and care.

We extract actionable insights from clinical data



Demands for accurate cancer data are increasing in number and complexity, as researchers strive to better understand, diagnose and treat the disease, and health system administrators predict which services are needed to care for cancer patients in the years ahead. Whether it's providing data leading to patients being treated closer to home, or informing planning for the new Calgary Cancer Centre, our expert analysts enable evidence-based decision making to reduce the burden of cancer for Albertans.

BETHANY KAPOSHI Manager, Surveillance & Reporting

ALBERTA CANCER REGISTRY

Recording cancer cases since 1942

The Alberta Cancer Registry (ACR) holds the legal mandate to record and maintain data on all new cancer diagnoses and cancer deaths in the province. Since the ACR was established in 1942, more than a million cancer cases have been registered.

Critical data from the ACR is used to support the planning of effective

prevention, treatment and research programs throughout the province.

By recording individual cancer cases and cancer-related deaths over several decades, the ACR also provides data that supports the comparison of cancer rates in Alberta with those across Canada, and in other countries. The ACR is certified by the North American Association of Central Cancer Registries (NAACCR). Based on the completeness of data, timely reporting, and other data quality measures, the ACR has maintained the highest Gold Certification status since 2005 – the only registry in Canada to have done so.





Accurate and reliable cancer data is essential for cancer surveillance, planning and evaluating cancer care programs as well as for research and improving patient care. Our registrars have highly specialized training to collect and interpret detailed cancer data, including patient demographics, tumour characteristics, cancer staging, and death information. Their expertise in staging and coding has also promoted collaboration and data quality nationally, through training and membership in committees. The COVID-19 pandemic highlighted the importance of having timely access to robust cancer data, as it helped understand all impacts on the cancer system.

ANGELA ECKSTRAND Acting Manager, Alberta Cancer Registry

Ensuring high quality and usability of Alberta cancer data

High calibre cancer care depends on the accuracy and reliability of the data gathered during the course of a patient's cancer journey – from diagnosis and treatment, to follow-up and supportive care. Ensuring the data is of the highest quality is the aim of the analysts within Data Integrity & Integration (DII).

With feedback and input from frontline clinicians, DII creates tools, such as questionnaires and on-demand dashboards and reports, in order to facilitate easy access to cancer patient data. DII's ultimate goal is to support quality improvement, foster more consistent cancer care across the province, and provide comprehensive and usable information to practitioners and researchers.



- Collaborating with Cancer Care Alberta (CCA) data stakeholders to identify data requirements
- Understanding how cancer patient data is captured and used by frontline staff and clinicians
- Developing processes and reports to assure quality of raw data
- Collaborating within AHS to integrate various data sources into CCA's data warehouse for secondary use such as operational planning, quality improvement and research



We're focused on ensuring both the accuracy and usability of our cancer data, by performing quality assurance and by developing analytics tools that enable CCA staff to use the data and effectively improve processes and practices to ensure optimal care for people facing cancer.

JASON SMITH Manager, Data Integrity & Integration

ALBERTA'S TOMORROW PROJECT

Building data for better cancer prevention and care

As the largest health research cohort study in western Canada, Alberta's Tomorrow Project (ATP) has created a vast data repository from its 55,000 participants.

Billions of points of data have been gathered, on health history, lifestyle, genetics, and environment, allowing researchers to examine what causes and what might help prevent cancer and chronic diseases.

Further, more than 99% of ATP participants have consented to linkage of their personal health care information with administrative databases, enabling deep exploration into environmental exposures, primary care and hospital usage, treatment, prescriptions and resulting health outcomes.



Supporting provincial research which revealed almost half of cancers in Alberta could be prevented through modifiable lifestyle factors

Supporting international microbiome study examining gut metabolites and their relation to chronic diseases

Collaborating with the national Canadian Partnership for Tomorrow's Health (CanPath) consortium as a founding scientific partner Creating a Participant Advisory Committee to ensure the views of participants are respected in new study initiatives

Launched the cohort-wide COVID-19 questionnaire, and COVID-19 Antibody Testing (CAT) sub-study to learn more about antibody responses and pandemic impacts on mental health, lifestyle, behaviours and access to healthcare services



Our participants offer details that are not typically captured elsewhere, about diet, physical activity, sleep, tobacco, environmental exposures, and more, at multiple time points. When researchers combine this information on the same participants over decades with other health surveys and databases. a much more detailed picture emerges of the factors that can contribute to diseases like cancer in positive or negative ways.

DR. JENNIFER VENA Scientific Director, Alberta's Tomorrow Project



ALBERTA'S TOMORROW PROJECT

20 years of ATP

Alberta's Tomorrow Project (ATP) began recruiting participants in 2001 to support research into what causes and what may prevent cancer and chronic disease.

Marking its 20th anniversary in 2021, ATP continues to build on its reputation for high-quality and diverse data:



- More than 950,000 questionnaires have been filled out by ATP participants
- Biological samples have been collected from more than 30,000 participants
- ATP's database houses more than 2 billion points of data
- Nearly 200 papers and presentations have been produced based on ATP data

ATP's lifestyle data can be linked with other databases to create a more accurate picture of disease prevention or progression

ATP is a world-class resource that has allowed me to tackle large studies much earlier in my career than I could have otherwise. I've used stored ATP biospecimens and other tumour samples to look more closely at which risk factors affect tumour biology and cancer development in breast and colorectal cancer.

We're only able to do this because ATP already collected blood samples years ago and has such extensive survey data on lifestyle, nutrition, residential history, etc. Time has to elapse before cancer occurs, and ATP has already made the investment in time.

DR. DARREN BRENNER

Molecular Epidemiologist & Assistant Professor, Cumming School of Medicine, University of Calgary



Researchers studying risk factors for cancer and chronic disease can apply for access to ATP's rich resource of data and biological samples.

Contact ATP's Access team at atp.research@ahs.ca

For more information about the platform and ongoing research, please visit myatp.ca

ALBERTA'S TOMORROW PROJECT

It's an area that I love and I'm pretty passionate about it. You can be helping people in the future, our future generations. Down the road they are going to have all this health information. These long-term studies are the ones that give us so much.

RAMONA PARENT-BOYD AND HUSBAND MALCOLM BOYD, ATP PARTICIPANTS SINCE 2012

Photo courtesy of Crown Photography & Film

HEALTH SERVICES RESEARCH

Bigger data reveals better care for patients

Health services research explores how drugs and other treatments perform in large patient populations; essentially, how well the system serves the patients who depend upon it. Here, real-world evidence reveals how medications and other interventions work for people of all ages, with additional conditions beyond cancer, rather than in clinical trial study populations alone. Alberta is one of the few provinces with a team established to closely examine the effectiveness of its cancer system. As the provincial director for Health Services Research within Cancer Research & Analytics, Dr. Winson Cheung and his colleagues study evidence gathered from electronic medical records and other huge health databases – cancer registries, pharmacy records, and patient reports on symptoms and quality of life – to learn how existing processes can be improved to better inform cancer care. They are real-world outcomes: why a disease occurs, what unfolds beyond a diagnosis, and what may lead to its return.

The ultimate goal is to ensure that all those needing cancer care get it, in the most timely, compassionate, and appropriate manner possible.



Clinical trials are extremely valuable for testing new drugs, or new interventions, but by design they represent only about 5-10% of the population. Real-world evidence looks at the other 90-95%, to examine the treatment outcomes and experiences of people we actually see in our clinics. This practical approach complements clinical trial research, helping us understand how new treatments can be used to best effect for the patients we see every day.

DR. WINSON CHEUNG Provincial Director, Health Services Research & Real-World Evidence



FUTURE HORIZONS

Well on our way...

FUTURE HORIZONS

Looking ahead... The future is bright

Since 2018, Cancer Research & Analytics has worked to enable broad and impactful research aimed at improving experiences and outcomes across the cancer continuum.

Our close work with patients and caregivers inspires new ways to capture their diverse symptoms and experiences, so clinicians can better target care to every individual.

Promoting powerful new partnerships between our portfolio and other cancer research institutes and individuals will allow scientists to more easily share their knowledge and expertise in sustainable, efficient ways.

And perhaps our most ambitious plan: building a new, streamlined

data environment that will accelerate the exploration of the province's wealth of health information, to benefit all Albertans facing cancer.

These are all made possible thanks to our close collaboration with research partners - among patients, in universities across the province, within government and other agencies, nationally and internationally.

We are stronger together.

Great ideas start here







Find more information about Cancer Research & Analytics <u>here</u>

