# RESEARCH SANDOLATION 2023

# Inspiring hope, changing lives



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Cover photo: Dr. Derek Exner (left), cardiologist at Foothills Medical Centre in Calgary, during an operation to place an AVEIR VR Leadless Pacemaker.

Photo by Leah Hennel



## **Foundations for success**

# Research and innovation drive improvements in healthcare

That's the key takeaway from this collection of recent highlights from the world of research and innovation in Alberta. The stories that follow illustrate some of the breadth and depth of the life-changing work taking place in our province, whether it's related to cancer care or mental health, or whether it takes place in small towns or large cities.

#### Our mission is to provide a patient-focused, quality health system that is accessible and sustainable for all Albertans

Alberta is home to a rich talent pool of innovative clinicians and researchers: scientists, researchers, physicians, pharmacists, nurses, nurse practitioners, allied health professionals and so many others, each pushing the boundaries of knowledge and each dedicated to making a difference to the people we serve.

The work of researchers and innovators is enabled by the indispensable expertise and support of our partners: the universities, health foundations, and different levels of government.

Because of the thriving research and innovation ecosystem here, Albertans

have opportunities to participate in clinical research and benefit from innovative treatments no matter where they live, their stage of life or their healthcare needs.

That's not the only benefit: attracting research and innovation investments to the province strengthens and diversifies local economies and creates and retains highly skilled jobs in Alberta.

Patients, however, remain at the heart of everything we do.

Our mission is to provide a patientfocused, quality health system that is accessible and sustainable for all Albertans. Our current focus is on reducing emergency department waittimes, improving EMS response times, increasing access to surgeries, and improving patient flow – all areas where research and innovation have important, foundational contributions to make.

It's through the process of asking questions and then collecting evidence to address those questions that we can generate the specialized knowledge that will lead to healthcare improvements.

That's good for Alberta, and good for Albertans.

## Ground-breaking cryogenic procedure strips precancerous cells from esophagus

WRITTEN BY SHARMAN HNATIUK

Paulette Barry is the first person in Alberta to have liquid nitrogen used to freeze pre-cancerous cells in the tissue of her esophagus through a minimally invasive, non-surgical, day procedure she never second-guessed having.

"I trust Dr. (Clarence) Wong with my life," says Barry. "He has taken such good care of me over the years to prevent my Barrett's esophagus from progressing into cancer, I had no hesitation when he presented me with the new freezing treatment option."

Barry developed Barrett's esophagus due to long-term exposure to stomach acid, causing inflammation and damage to the cells that line the inside of her esophagus. Barrett's condition is one where the lining of the esophagus, the tube that carries food from the mouth to your stomach, becomes damaged.

"For advanced cases like Paulette, the current provincial protocol is to start with endoscopic radiofrequency ablation which uses heat to remove the damaged cells in the esophagus, a treatment that was unsuccessful for Paulette," says Dr. Wong, a gastroenterologist at the Royal Alexandra Hospital.

"Thankfully, we now have another minimally invasive option that will help prevent the progression to cancer and help patients avoid more complex and painful surgeries."

#### Alberta is home to the only endoscopic cryotherapy ablation program in Canada

Last year, physicians from the Royal Alex in Edmonton and South Health Campus in Calgary travelled to Johns Hopkins in Baltimore, Maryland, to learn how to perform endoscopic cryotherapy — a targeted freezing technique delivered inside the esophagus.

During Barry's procedure this past January, a thin, flexible tube with a special tool at the end (an endoscope) was inserted through the mouth using cold energy or cryotherapy to reach the affected area. There, nitrous oxide is delivered at -85 C to freeze the tissue. Within days, the dead tissue sloughs off and the esophagus heals. Patients undergo a follow-up examination three months later, at which time retreatment is performed for any residual areas of Barrett's esophagus.

At Barry's follow-up examination, retreatment to residual areas was successfully performed.

"After two cryogenic treatments we can see that Paulette is not only cancerfree, but she is also Barrett's-free," says Dr. Wong. "Her heartburn is gone; we've returned the lining of her esophagus to normal. We've essentially cured her of

cancer before it even happened."

Alberta is home to the only endoscopic cryotherapy ablation program in the country, something for which Barry says she's thankful.

"Some people may think heartburn is just a minor inconvenience, but it can lead to serious health issues. Esophageal cancer took my dad's life," she says. "I'm so grateful this treatment option was available for me. I think it can save a lot of people's lives."

*This story was posted to ahs.ca in September 2023.* 

Dr. Clarence Wong, a gastroenterologist at the Royal Alexandra Hospital, shows Paulette Barry the balloon that was used through an endoscope to deliver liquid nitrogen to precancerous cells inside her esophagus.

Photo by Evan Isbister



# Personalized approach to bone health brings POWER to the patient

# App developed by McCaig Institute for Bone and Joint Health research team helps monitor a patient's health

WRITTEN BY STEPHANIE SYMINGTON, UNIVERSITY OF CALGARY (WITH FILES FROM ALBERTA HEALTH SERVICES AND ALBERTA INNOVATES)

When Calgary resident Erin Dolan fell off her bicycle in 2020 and broke her leg, it was the first in a series of unfortunate events that later included a broken ankle and then a broken wrist.

Despite the ordeal of three broken bones and three surgeries, there was a silver lining: the fractures made Dolan, 61, a prime candidate for a new digital health initiative that empowers patients to monitor their bone health and prevent future breaks.

#### Over 350 patients have been enrolled, just through the Cast Clinic at the Foothills Medical Centre alone

The POWER Program: Personalized Osteoporosis Care with Early Recognition, is a service that offers personalized bone health care to those with new broken bones. The POWER team of nurses and physicians identifies those at risk of poor bone health, investigates possible causes, creates personalized bone health care plans, provides education, and initiates treatments for those at highest risk of future fractures. The program also features a smartphone app that helps alert, monitor, educate, survey, and communicate with patients to ensure engagement in life-long bone healthcare.

"I feel really lucky that I could be part

of this," Dolan says. "Everyone involved in this program is phenomenal and I really appreciated having the extra eyes on me."

Developed by surgeon Dr. Prism Schneider and her research team at the McCaig Institute for Bone and Joint Health and Foothills Medical Centre, the initiative is supported by \$1.2 million in funding from the Partnership for Research and Innovation in the Health System (PRIHS), jointly provided by Alberta Innovates and AHS. (See story on P5 for information on other digital health projects recently funded by PRIHS.)

At least one in three women, and one in five men, will experience a fragility fracture due to osteoporosis, or low bone mass, at some point in their lifetime. Fragility fractures most commonly occur from a fall from standing height or less. Individuals experiencing a fragility fracture are two to four times more likely to have another fracture in the following two years.

"There is a tremendous need to provide better multidisciplinary approaches for fragility fracture care for all Albertans," Schneider says. One estimate projects a 24% increase in ragility ractures by 2030, given that more than 21% o post-menopausal women in Canada have osteoporosis.

"Our POWER program is designed to have multiple access points, so that

an emergency room physician, a primary care physician or a surgeon can refer a patient to the program and patients can even self-refer to gain access to the POWER Program," she adds.

To date, over 350 patients have been enrolled, just through the Cast Clinic at the Foothills Medical Centre alone.

Schneider has found that participants of all ages are embracing the program and supporting digital health solutions. The app was developed with input from patients and new enhancements are being driven by their experiences.

"Some of the tools we plan to introduce are inspired by patient feedback," says Schneider. "They have expressed interest in features such as chat group networking, allowing them to discuss injury recovery with fellow patients." The goal is to eventually make the program available provincewide.

For her part, Dolan says she's grateful the POWER program has helped her better manage her osteoporosis, in addition to her active lifestyle that includes swimming daily.

"My mother had it horribly," Dolan says. "If this can help people catch things ahead of time so they don't have to go through what I've been through, it will really be a benefit."

An earlier version of this story was posted to ucalgary.ca in August 2023.

#### STRENGTHENING HEALTHCARE THROUGH TECHNOLOGY

Dr. Prism Schneider and her team have developed the POWER Program to help people like Calgary resident Erin Dolan track their bone health.

**Photo by Riley Brandt** 

#### **PRIHS fuels study of tech integrations**

Seven other projects that explore the use of digital technology to deliver care also received funding in 2022 from PRIHS (Partnership for Research and Innovation in the Health System), a program jointly administered and funded by Alberta Innovates and Alberta Health Services. This latest round of funding focuses on promising digital health solutions to address Alberta health system challenges:

- Dr. Kamala Adhikari at the University of Calgary (U of C) is looking to improve patient health outcomes by integrating prevention-oriented care activities related to tobacco use, physical activity, and alcohol consumption as a part of routine care through AHS' electronic clinical information system (Connect Care).
- Dr. Maria Castro-Codesal at the University of Alberta (U of A) is working with AHS staff to design, implement and assess a hospital-tohome pathway for children undergoing tracheostomies that uses digital resources to support patients, their caregivers and healthcare providers.
- Dr. Justin Chen at the U of A is evaluating the effectiveness of a standardized care pathway to optimize the management of patients with Staphylococcus aureus bacteremia infections across Alberta using Connect Care and virtual health technologies.
- Dr. Alim Hirji at the U of A is piloting the use of remote telemonitoring devices to continuously monitor

patients at the University of Alberta Hospital who have a high risk of respiratory complications.

- Dr. Matthew James at the U of C is looking to improve post-discharge management of patients with acute kidney injuries using digital health tools available in Connect Care.
- Dr. Darren Lau at the U of A is investigating the use of digital and virtual innovations to enhance care supports for First Nations peoples with diabetes.
- Dr. Karen Wong at the U of A is developing a patient dashboard in Connect Care to help patients and healthcare providers better manage and care for inflammatory bowel disease.

#### STRENGTHENING HEALTHCARE THROUGH TECHNOLOGY

## **Connect Care plays pivotal role in wildfire evacuations**

#### WRITTEN BY SUZY THOMPSON

As wildfires flared across north and central Alberta in May, Alberta Health Services (AHS) staff worked quickly to suspend services and evacuate hundreds of patients and continuing care residents from healthcare facilities in Drayton Valley, East Prairie, Edson, Evansburg, Fox Creek, High Prairie, Pembina Village, Rainbow Lake, Swan Hills and Valleyview.

This high-stress situation was eased by features in Connect Care that allowed remote clinical operations support staff to quickly pull patient information at sites receiving evacuated patients.

"It was amazing what we were able to do," says Joy Fu, executive director of Clinical Operations Informatics. While she's worked on Connect Care's implementation for years, she says this was the first time its ability to help in a widescale emergency was put to the test. Evacuation managers needed as much information about patients as they could get, as soon as possible, to know how transit and clinical resources should be allocated.

"They were saying, 'these are the things that we need for patients: we need their name, the demographics, specific information on their oxygen level, can they actually ambulate, are they mobile, are they in isolation?" says Fu.

Previously, this is information that nurses on site had to compile manually — but this time, it was pulled directly from the system.

"This ability to pull reports meant that nurses in these sites were able to spend their time caring for patients and preparing them for evacuation, instead of manually collecting data and transcribing it," she says.

Assisting Joy was Kent Tetz, Clinical

Informatics lead for Patient Movement, who adds: "All of this contributed to a smooth evacuation process — the (Emergency Coordination Centre and Zone Emergency Operations Centres) had the information they needed and the nurses at the sites were able to focus on providing care and prepping their patients."

Thanks to the work that was done in the May evacuations, the Connect Care team has also built guides to help staff through the evacuation workflow in the event of future emergencies.

*This story was posted to ahs.ca in June 2023.* ■

Alberta Health Service gained valuable experience in the evacuation of patients during the 2016 wildfires in the Fort McMurray region. This photo was taken near Anzac, a hamlet southeast of the city.

Photo provided to AHS

## **Connect Care gives 'voice' to brain-injury patients**

#### WRITTEN BY SUZY THOMPSON

Healthcare providers who work with brain-injury patients appreciate the way Connect Care, Alberta Health Services' new clinical information system, streamlines communication and helps them to better understand patients' medical stories.

#### Connect Care has really given them a voice. It's allowed us as providers to have better insight

At the Glenrose Rehabilitation Hospital in Edmonton, which launched Connect Care in May 2022, Clinical Nurse Educator Craig Mullen oversees the site's Stroke and Brain Injury Units. Given the numerous specialties required to treat his patients, Mullen says that Connect Care has absolutely streamlined communication between these groups.

"It's extremely multidisciplinary," adds Mullen. "Especially with brain injury, your speech is involved, your behaviour changes, your mobilization, your activity of daily living — you're relearning a lot of things. So, you need all those different disciplines — experts in their own area — to get this person back to their highest functioning self." Connect Care is an electronic clinical information system designed to house all AHS, partner and affiliate medical records as a continuous, centralized record of care.

"In our brain-injury population, they often don't have a voice," adds his colleague, Nurse Practitioner Sarah Cooper. "Many have conditions that have left them with the inability to communicate their story. They've lost the ability to speak, and for others they have no memory of the events leading up to how they wound up in hospital.

"Connect Care has really given them a voice. It's allowed us as providers to have better insight into the people they've interacted with prior to coming to our hospital — the acute care hospital, sometimes EMS transport providers, sometimes rural hospitals before the big city hospitals, and we get to see a little bit more of what it is that's happened to them.

"I would say that the information now is far more accurate than ever. It gives them the ability to tell their story, even when they can't physically tell their story."

A version of this story was posted to *ahs.ca in June 2023.* 



Nurse Practitioner Sarah Cooper says the breadth of information in Connect Care tells her patients' stories when they can't tell it themselves.

Photo by Heidi Harris-Jensen



# Calgary cardiologist leads pacemaker revolution

Dr. Derek Exner, a cardiologist at the Foothills Medical Centre and associate dean at the University of Calgary, with the AVEIR leadless pacemaker and a model of the heart.

Photo by Leah Hennel

#### WRITTEN BY BLAIN FAIRBAIRN

As a seven-time Iron Man competitor, veteran marathoner and avid swimmer, Gord Kirk, 68, is keenly attuned to the nuances of his cardiovascular health. So when his heart began beating irregularly in the late 1980s, he naturally felt concerned about how it would impact his highly active lifestyle.

After being referred to a cardiologist at Foothills Medical Centre (FMC), Kirk would be diagnosed with a heart arrythmia, a medical condition in which electrical signals that coordinate the heart's beats don't work properly. In Kirk's case it was bradycardia, when the heart beats too slowly.

#### Heart disease affects approximately 2.4 million Canadian adults and is the second-leading cause of death in Canada

"If my resting heart rate fell below 40 (beats per minute), I would feel faint, and sometimes I did pass out," Kirk says. "I would have to be careful getting up out of a chair or standing up too quickly if my heart rate was too low."

By 2021, Kirk was preparing to have a pacemaker implanted to help regulate his heartbeat. It was purely by chance that Dr. Derek Exner, a cardiologist at FMC and associate dean, clinical trials, at the University of Calgary's Cumming School of Medicine, came across his case and offered Kirk a new, cutting-edge pacemaker with no wires or bulky components.

"(Dr. Exner) said I was a candidate for a clinical trial. When he explained the device to me and what it offered, I saw only upside," adds Kirk. "I didn't even know there was such a thing as a leadless pacemaker."

That February, Dr. Exner implanted an AVEIR leadless pacemaker directly into Kirk's heart. Slightly smaller than an AAA battery, the AVEIR leadless pacemaker offers several advantages over traditional pacemakers: it has a very long battery life averaging more than 15 years; it's less invasive, requiring only a small incision in the groin to guide it into the right lower heart chamber; and it's also easier to remove and replace.

"One of the truly amazing things is, patients forget they have a pacemaker," says Exner. "That's really rewarding, taking the device from a place where it's an inconvenience or a nuisance to a place where they forget they have it," he says.

After working with AVEIR manufacturer Abbott Laboratories on a clinical trial of the pacemaker's safety and efficacy over the past eight years, a major milestone was achieved with Health Canada's approval of the device.

"The approval is a national gamechanger for improved cardiovascular care," he says. "It allows for Canadians to receive the best technology in the world and have a better quality of life with their pacemaker."

Exner is helping expand the device's use by developing a training program for physicians to learn how to implant it. FMC will become a training centre regionally and internationally, leading to the potential for early access for Albertans.

For Kirk, having the AVEIR pacemaker means he can return his focus to staying healthy, rather than worrying about feeling unwell.

"It's kinda boring actually," he says. "It's been great and I don't feel any of the symptoms I used to — the lightheaded spells and dizziness.

"It's just back to normal. I go days without even thinking about it."

Heart disease affects approximately 2.4 million Canadian adults and is the second-leading cause of death in Canada. More than 200,000 Canadians are currently living with pacemakers.

*This story was posted to ahs.ca in February* 2023. ■

#### **HOMEGROWN INNOVATION**

A team from the Cochrane Community Health Centre published research findings in 2023 that looked at the long-term use of counselling services at their clinic. From the left: counsellors Eric Howey, Nick Todd, Tara Perry and Lyuda Krupin.

Photo by Emma Mills



# Counselling team considers rural service needs

#### In-house research program supports frontline teams

WRITTEN BY GREG HARRIS

Consistent, flexible support is key to helping people work through addiction or mental health issues, according to staff research that looks at the experiences of long-term clients using a rural counselling service.

Supported by the Alberta Health Services Research Challenge, a team of counsellors at the Cochrane Community Health Centre looked at the experiences of six people who accessed counselling services for more than five years.

"When a person goes into counselling, there may be an expectation that after a few sessions everything will be fine, but that is not my experience," says Jennifer, one of the participants in the study.

Now 60, Jennifer first sought counselling when she was 29 for help with a relationship difficulty that spiraled into domestic abuse.

"For me this has been a journey, with a lot of ups and downs on the path. I've had to work through my own childhood trauma," she says. (AHS has agreed not to use Jennifer's last name.)

The AHS Research Challenge is a professional development opportunity for front-line care providers to help build research and quality improvement capacity. Selected teams receive funding, education, and mentorship to conduct small-scale research studies that address clinical questions.

The researchers, Lyuda Krupin, Nick Todd, Eric Howey and Tara Perry, published their findings earlier this year in the Canadian Social Work Review.

"We were surprised to find the need for long-term care was not as high as we feared," says Krupin, a therapist who was the principal investigator on the research project. "Only 1.5% of clients stayed around for five years or more, which is low for a clinic like ours."

Close to 400 people access counselling services at the Cochrane clinic every year. Most will leave after an average of three sessions and guidelines recommend counselling be limited to a maximum of 12 sessions in a year.

"We can sometimes have conversations with people about closure, but not everyone is ready to move on after 12 sessions," Krupin says. In those instances, staff and managers review individual cases to weigh what's best for clients. No one is turned away if there is a risk of selfharm or hospitalization.

"Our fear was that a small group of users might be creating access challenges

for others, but this is not the case," Krupin says. "This is a good example of patientcentred care; the patients themselves are telling us what they need."

#### Close to 400 people access counselling services at the Cochrane clinic every year

Jennifer says improvement doesn't necessarily follow a straight line and she is grateful for being able to reliably access ongoing counselling support. Although she ultimately left her partner, she went through escalations of violence, spent time in the shelter system, and then, after ending the relationship, had legal and child custody interactions.

"It's not like you leave and everything stops. I've used counselling to keep me moving forward."

The research article is titled "Staying Connected: Service-user experience of the recovery journey and long-term engagement with a mental health clinic." The abstract is available here, but the full article is behind a paywall.

The Research Challenge began in 2016 and runs again in 2024. ■

# 'Digital workers' save patient data

WRITTEN BY VANESSA GOMEZ AND GREG HARRIS

An innovative digital automation has saved Alberta Health Services an estimated \$1.3 million and preserved at least a decade's worth of patient data in Edmonton.

When the eClinician clinical information system reached the end of its run in 2019 with the launch of Connect Care, it had amassed information collected from some 7.8 million patient visits to AHS sites.

"We had to find a way to export the data that eClinician hosted while maintaining its integrity," says Penny Rae, Chief Information Officer, Information Technology.

The data was important to providers and gave them a snapshot of a patient's healthcare journey in the system.

The hitch, however, was that there was no easy way to get the data out of eClinician. The only apparent solution was to manually access and retrieve each of the 7.8 million patient encounters so they could be accessible in Connect Care.

#### An innovative digital automation has saved Alberta Health Services an estimated \$1.3 million

"We estimated the process would require 66 workers devoted to the task for an entire year," says Glen Shortt, Executive Director, Centres of Expertise and IT Corporate Services, Information Technology.

Although it would be a painfully repetitive task for humans, it was the perfect assignment for AHS' globally recognized Intelligent Automation program, which uses software to automate manual processes. Often referred to as 'digital workers,' the software uses mouse clicks and keystrokes to mimic what people do.

Once unleashed, the software took just over two months to retrieve each of the 7.8 million records; in so doing, it also saved AHS the \$1.3 million annual costs needed just to keep eClinician operational until the stranded data could be freed.

"Our software is trained to act in the same way human workers do – logging into a computer, opening up applications, doing work and then logging off," says Jesse Tutt, Program Director, IT Intelligent Automation, Information Technology.

"We now automate manual processes in Finance, Health Information Management, Human Resources, IT, Contracting, Procurement & Supply Management, and many others."

To date, the program has automated 33 manual processes and freed up more than 67 FTE of capacity.

"Overall, staff and managers across AHS are increasingly becoming eager and willing to work with us to identify automation opportunities and free up capacity in their teams," says Carolina Szabo, IT Lean Lead, who supports the upfront collection and definition of automation opportunities.

"This work frees our staff from repetitive tasks to do things they find more creative and interesting," Rae adds.

Tutt notes that the unique code the team created to overcome the challenges of processing such a large number of records could potentially be adapted for future automations.

# Excellence in resuscitation



Photo by Rocco Macri Photography

In October 2023 Calgary Zone Paramedic Sienna Rutley received an EMS Peer Choice Award for Resuscitation in Arduous Conditions. Rutley and several other paramedics from across Alberta were honoured on World Restart a Heart Day for excellence in resuscitation. EMS Science and Research developed the commemorative coin (front and back, inset) to recognize the resuscitation efforts of frontline providers. AHS EMS is a member of the **Canadian Resuscitation Outcomes** Consortium (CanROC), a national research study that highlights the importance of Cardiopulmonary Resuscitation (CPR), increases the quality of CPR and resuscitation, and improves patient outcomes. Award recipients were selected based on innovative quantitative measures (EMS-Remove) the team developed to help define clinical excellence. Video of the 2023 coin ceremony is available here.



## Simulation 'delivers' the future of newborn care

Innovative EXIT exercise preps teams for rare high-risk childbirths

WRITTEN BY MIRETTE DUBÉ, SUE BARNES, JULIA HABER & NANCY SOLIMAN

An EXIT Procedure Simulation gets underway in an operating room at the Foothills Medical Centre. Photo courtesy of eSIM Provincial Simulation team

High-risk operations in a surgical suite call for extreme preparation and organization of every member of the medical team. However, some procedures are so rare that teams need the opportunity to practise and perform the surgery in advance to ensure the best processes and systems are in place when the real thing happens.

#### eSIM has more than 16,000 participants and more than 2,000 sessions per year across all zones in Alberta

This is where simulation exercises have a huge role to play.

In November 2022, teams from the Foothills Medical Centre, Alberta Children's Hospital and the Educate, Simulate, Innovate and Motivate (eSIM) Provincial Simulation Program, planned and simulated a high-risk special delivery — an Ex-Utero Intrapartum Treatment (EXIT) procedure — using special medical mannequins of a mother and newborn.

This is a special delivery procedure performed when it's anticipated that a baby will face an immediate, critical problem once separated from the mother at delivery.

In the case of airway obstruction, for example, an EXIT procedure gives the surgeon time to clear the baby's airway, secure a breathing tube, and provide adequate ventilation, before the baby is separated from the mother. Once the baby is stable enough for delivery, the umbilical cord is cut, and the newborn is transferred to the care of the neonatologist and the pediatric surgeon.

"As you can imagine, such an endeavour involves bringing together a huge number of people, from different healthcare backgrounds, to perform a rare and high-stakes set of steps," says Dr. Julia Haber, anesthesiologist for the simulation preparation.

With seven teams involved including Obstetrics, Maternal Fetal Medicine, Neonatology, Maternal and Pediatric Anesthesia, the Perioperative team, Pediatric Otolaryngology and, of course, the patient and family — smooth coordination is vital. Ensuring everyone is well-rehearsed, comfortable and the environment that surrounds the teams is tailored for the workflows that follow, is key to safe, efficient and quality care.

"Every team had the opportunity to voice concerns and suggestions during the debrief which made the day of the procedure run very smoothly," says Dr. Nancy Soliman, perinatologist and obstetrician for the actual patient. "All equipment was identified and set up well ahead of time, and all potential kinks in the process were identified through the simulation. The simulation and debriefing identified multiple improvements, including operating room layout, team communication, how to solidify team roles and responsibilities, equipment, IT process improvements and care of the family members as well as post-delivery care.

"The conversations that occurred to clarify clinical steps and transitions of care between teams would not have occurred at all prior to the actual simulation event. These conversations would not have been possible during an actual EXIT procedure," adds Dr. Haber.

The eSIM team serve as qualityimprovement and patient-safety thought leaders for AHS. They have developed internationally recognized approaches for these types of systems simulations where the focus is not only on medical team training, but also takes a broader look to identify any potential gaps within the healthcare system, environment, technology, process or procedures.

The provincial eSIM team is a provincial program dedicated to improving frontline care through education, systems testing and working with a broad range of teams. eSIM has more than 16,000 participants and more than 2,000 sessions per year across all zones in Alberta.

*This story was posted to ahs.ca in March* 2023.

# Cardiac device improves quality of life

#### Child is first in North America to benefit from new heart technology

#### WRITTEN BY MARNI KUHLMANN

Late in 2022, then three-year-old heart patient Greyson Eackett became the first in North America to use a new lighter, more mobile, driving unit for his ventricular assist device, which helped to pump his blood while he awaited transplant.

#### This new driver unit can dramatically improve the patient and family's quality of life

Greyson was one of two patients at the Stollery Children's Hospital to use the new driver unit, which offers more independence than previous devices.

A ventricular assist device is used in patients experiencing heart failure, which occurs when their hearts are not able to pump enough blood. The device comprises a surgically implanted pump, tubes that connect the pump to the heart, a control system, a power source and a driver unit, which pushes air in and out of the pumps to help move blood through the heart to the body.

Until recently, the only option for ventricular assist device drivers for young pediatric patients, who weigh less than 25 kg, was a large, heavy machine weighing between 70 to 90 kg, with a limited battery life. Patients could only be away from their power source for 20 to 30 minutes, which limits their activities in hospital.

The new device — the Berlin Heart EXCOR Active — weighs only 13.5 kg, with more mobility and a longer battery life. Patients can now leave their power source with 10-12 hours of battery life. This allows walks in the hospital and longer visits to physiotherapy as well as outside of the hospital. The new device also runs much more quietly, which helps children sleep better.

"Unfortunately, our wait times for heart transplant in Canada are quite long, so even our highest-priority transplant patients can wait six months, a year or longer in hospital," says pediatric cardiologist Dr. Jennifer Conway, director of the Stollery Heart Function and Cardiomyopathy Program. "This new driver unit can dramatically improve the patient and family's quality of life while waiting in hospital during that time."

The new device could be "the first step" toward being able to discharge these patients home while they await transplant, says Dr. Holger Buchholz, director of the Pediatric and Adult Artificial Heart Program at the Stollery Children's Hospital and Mazankowski Alberta Heart Institute.

"Our goal is not to have patients waiting for months in a hospital," he

adds. "We want to try to get them home, integrate them in their normal life again, go to school, the playground, be able to be around their friends and siblings. It's really the next step for better healthcare and better outcomes."

Now four, Greyson is doing well at home after undergoing a heart transplant. He had been staying full-time at the Stollery for more than eight months before receiving the new device driver. At the time, his dad Roy was thrilled with the possibilities this brought.

"It's unbelievable," he said. "The ability to get him out, get him exercising, building muscle, becoming stronger, really increases our chances for a quick recovery once we do get the gift of transplant. It's no longer the limitations of the machine holding him back. It's just his physical limitations and now we can work on decreasing those limitations. It makes me feel really good."

The Pediatric Ventricular Assist Device Program is a joint program supported by the Stollery and the Mazankowski Alberta Heart Institute. It's one of the largest Ventricular Assist Device programs in North America and has been at the forefront of mechanical circulatory assist device treatment since 2005.

*A version of this story was posted to ahs.ca in December 2022.* 



Greyson Eackett was in the Stollery Children's Hospital for several months awaiting a heart transplant. During that time, he used a new ventricular assist device driver unit to help pump his blood. The longer battery life opened up a world of possibilities for more activities with his family.

Photo by Evan Isbister

# **Empowering parents in Alberta's Neonatal Intensive Care Units**

#### WRITTEN BY KOREY CHERNESKI

Fewer critically ill newborns are having to return to hospital within seven days of discharge, thanks to a new model of care in all 14 neonatal intensive care units (NICU) across the province.

#### The average length of stay in the NICU dropped by half a day, enabling babies to go home sooner

Alberta Family Integrated Care (FICare) encourages parents to actively participate in their baby's care and work alongside their NICU healthcare team to build the knowledge, skills, and confidence needed to parent their babies in the NICU and at home.

"If family integrated care didn't exist, this experience would be 10 times harder," says Kyrsten Franz, whose son Theodore was born at 27 weeks in November 2022 and received care at the Rockyview General Hospital NICU.

"Being able to care for my baby in the NICU helps normalize the experience. I can still make decisions and do something as simple as diaper changes. And we are constantly reminded that we are an important part of our child's care," she adds.

Following the province-wide implementation of Alberta FICare in 2019, the average length of stay in the NICU dropped by half a day (January 2022 measure, enabling babies to go home sooner. In the first week after leaving hospital, ED visits have dropped 26 per cent, and hospital readmissions are down 37 per cent for former NICU patients.

"Having a baby in the NICU can be a stressful experience for parents and learning to care for a preterm baby both in the hospital and at home requires extensive support over time during the hospitalization," says Dr. Deborah McNeil, Scientific Director of Alberta Health Services' Maternal, Newborn, Child and Youth (MNCY) Strategic Clinical Network (SCN) and Adjunct Associate Professor Faculty of Nursing and Department of Community Health Sciences Cummings School of Medicine, University of Calgary.

#### This model enables healthcare teams to integrate families within the healthcare team

"Nurses have moved into an educational role and support parents who want to be involved in all aspects of their baby's NICU care when they are ready."

Parents in the NICU are supported and educated to provide skin-to-skin care,

change diapers and clothes, participate in bedside rounds, bath, weigh, feed, take temperatures, and provide comfort during treatments and procedures.

"We've always had excellent care in the NICUs, but this model enables healthcare teams to integrate families within the healthcare team," says Dr. McNeil, adding early involvement of parents in care has many benefits for preterm babies, including healthy brain development, less feeding and breathing supports, and stabilized breathing and heart rate.

As part of FICare, parents receive a journal that contains resources and information, outlines how parents can participate in bedside rounds, and provides space for parents to write about their baby, their NICU journey and things they've learned, and to record their questions.

The FICare model exists in other jurisdictions but was adapted for Alberta and tested with NICU practitioners.

Alberta FICare is the one of the first examples of a project that has moved through Alberta Health Services' Innovation Pipeline, a mechanism created by AHS that provides a framework for how new practices and interventions move through the healthcare system.

High fives all around to spending less time in the NICU.

Photo provided to AHS

The journey starts with a pilot or proof-of-concept project, progresses to testing and validation, then advances.

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Approximately 50,000 babies were born in Alberta in 2021, with 8.8 per cent of them — about 4,400 — born preterm and requiring care in a NICU. A stay in the NICU can range from two to nearly 100 days.

It's estimated the reductions in NICU length of stay have saved the health system about \$1.2 million over a twoyear period. Approximately 50,000 babies were born in Alberta in 2021, with 8.8 per cent of them — about 4,400 — born preterm and requiring care in a NICU

Expansion of FICare across the province was made possible through partnerships between the MNCY SCN and the University of Calgary, and funding from the Partnership for Research and Innovation in the Health System (co-funded by Alberta Innovates and AHS), the Alberta Children's Hospital Research Institute, the Canadian Institutes of Health Research and the Health Innovation Implementation and Spread Fund, which is co-funded by Alberta Health and AHS. See pages 4 & 5 to learn about other PRIHS projects.

*A version of this story appeared in the Winter* 2023 *SCNergy newsletter.* 

# Indigenous Support Line helps callers navigate system

#### Now available in three AHS Zones

Alberta Health Services' Indigenous Support Line is building on its success with continued expansion throughout the province.

The toll-free phone service that helps Indigenous peoples navigate the health system is now available in the North Zone (since June 2022), South Zone (May 2023) and Central Zone (August 2023).

"The Indigenous Support Line is creating a brave space where our people can speak their truth, a place where they can feel supported asking for guidance and help navigating a complex healthcare system," says Casey Eagle Speaker, cochair of the AHS Wisdom Council.

The support line is staffed by Indigenous Health Link staff, who answer callers' questions, help them access culturally appropriate care and support and assist them with navigating the healthcare system.

As of Dec. 31, 2023, and across all three zones, Indigenous Support Line staff have answered more than 1,750 calls, and made an additional 3,950 calls to ensure that callers' needs are met.

"The support line connects individuals with someone who listens with patience, spirituality, acceptance, caring and empathy," says Cheryl Sheldon, co-chair of the Wisdom Council, which provides guidance and recommendations to ensure AHS develops and implements culturally appropriate and innovative health service delivery for Indigenous Peoples.

In a follow-up survey with clients who used the line, respondents said they felt respected and supported by the person who assisted them, and more than 97 per cent said they would use the line again and would recommend it to friends and family.

The AHS Wisdom Council & Elder Circle played a key role in the creation of the Indigenous Support Line in the North Zone, providing strong guidance and advice to AHS throughout the creation and launch of the project.

The AHS Indigenous Wellness Core and Health Link teams have worked diligently to turn this recommendation in to a highly effective service. The Wisdom Council continues to encourage AHS to expand the service across the province to better support Indigenous peoples in their wellness journey.

As a past recipient, the support line has roots to the 2022 i4 Launchpad competition, which is a pitch competition that supports outstanding innovations by helping innovators reach a wide audience. Finalists benefit from the exposure, mentorship and grants provided.

#### Indigenous Support Line staff have answered more than 1,750 calls, and made an additional 3,950 calls to ensure that callers' needs are met

The toll-free Indigenous Support Line is available weekdays from noon to 8 p.m. Clients can call at any point in their healthcare journey with questions or concerns. Those providing care and support to First Nations, Métis, and Inuit peoples and their loved ones are also welcome to call. The line can be reached by calling 1-844-944-4744.

All Albertans are asked to call 911 if they have a medical emergency. Health Link (811) also remains available 24/7 for non-emergency health-related questions.

AHS values Indigenous culture and the unique needs of individuals, patients and families and is incorporating traditional culture into the healthcare system.

*Information in this story appeared on ahs.ca in 2022 and 2023.* 

**IMPROVING ACCESS TO CARE** 

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Mary Ellen Mcgonigle-Roberts, a mental health therapist based in Calgary, works with the Indigenous Support Line.

Photo by Leah Hennel

IMPROVING ACCESS TO CARE

For pioneering a new approach to anesthesia for cancer patients, Dr. Timur Ozelsel of the Cross Cancer Institute has been recognized as Physician Innovator of the Year by the Edmonton Medical Staff Association.

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Dr. Timur Ozelsel administers anesthesia in the OR.

Photos provided to AHS

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Cancer patients seeking innovative solutions often turn to Dr. Timur Ozelsel, site chief of anesthesia at the Cross Cancer Institute. His revolutionary approach in using local anesthesia during surgery is seeing patients with fewer side effects, faster discharges and better outcomes.

#### Dr. Ozelsel was recently recognized as Physician Innovator of the Year 2022 by the Edmonton Medical Staff Association

While his expertise lies outside oncologic anesthesia, his passion for making a difference led him to explore new frontiers during the challenging COVID-19 pandemic.

The pandemic posed unprecedented challenges, particularly regarding the spread of the virus through airway manipulation during general anesthesia. Dr. Ozelsel took the initiative to address these concerns by teaming up with Dr. Ezekiel Weis, an ocular brachytherapy surgeon.

Together, they devised a groundbreaking technique that involved transitioning patients from general anesthesia to monitored anesthesia care. With this approach, patients remained conscious while receiving local anesthesia for their surgery, leading to exceptional results.

## New anesthesia strategy a boon for cancer patients

# Patients at the Cross Cancer Institute describe less pain, faster recovery

#### WRITTEN BY JENNIFER GREEN

Encouraged by the success of this method, Dr. Ozelsel approached Dr. Nikoo Rajaee, a breast cancer surgeon, with a proposal to expand their new approach. Today, by combining their efforts, they are also achieving remarkable results in breast cancer surgeries.

For pioneering this method, Dr. Ozelsel was recently recognized as Physician Innovator of the Year 2022 by the Edmonton Medical Staff Association.

One beneficiary of his work is Carie Fargey-Scott, who experienced this new technique during her double-mastectomy surgery. "Initially, I was apprehensive about the approach. I was scared of being aware during the procedure or having increased pain."

However, once she received the sedation, she found the experience no different from being under general anesthesia. She appreciated that Dr. Ozelsel had informed her that she might wake up during the procedure, with the surgeon still suturing or dressing the wounds, so she knew what to expect.

After the surgery, she recalls: "I felt far less groggy and tired than other surgeries. I had very little pain and no nausea. I also managed my pain mostly with over-thecounter painkillers and barely used the narcotic I was prescribed."

"We were highly successful from Day 1," says Dr. Ozelsel. "Our patients not only remained safe throughout the procedures, but they also experienced better outcomes with faster recoveries."

Dr. Ozelsel emphasizes that their method offers all the benefits of general anesthesia without the undesirable side effects.

To date, patients reported fewer instances of pain, nausea and vomiting, which has led to faster discharges and an increase in surgical output. Remarkably, this surge in efficiency was achieved without the need for additional personnel resources.

The resounding success of their approach has seen its use expand to various cancer surgeries, including ocular and gynecological brachytherapy, vulva, vagina, and anal surgeries, laser resurfacing for burn scars and urologic procedures.

For patients like Fargey-Scott, the benefits are significant. "My recovery has been much easier and faster with less pain overall. In my opinion, the numberone advantage is if patients are able to avoid narcotics, it's so much easier on their bodies and lessens the chance of dependency."

Dr. Ozelsel adds: "While our method is not yet the gold standard, we have high hopes that it will pave the way for a new era in cancer surgery. Our success has been tremendous, and we envision a future where this approach becomes the norm."

*This story appeared on ahs.ca in August* 2023.

## App connects patients to care teams during recovery

# Study weighs merits of post-op app for safer healing at home

#### WRITTEN BY GREG HARRIS

Madeleine Hamilton suspected something was amiss during her recovery from breast reconstruction surgery about three days after the procedure.

"I consider myself pretty tough when it comes to post-operative pain, but I felt like I was just getting worse instead of better," says Hamilton, who has also had a double mastectomy and other surgeries. "I felt out of breath and like something wasn't right. The pain was increasing and I felt pretty terrible."

Because Hamilton was taking part in a research study testing the safety and effectiveness of a smartphone app designed to aid surgical recovery, she was able to send messages and photos to her care team, which included her surgeon, Dr. Claire Temple-Oberle.

Photos of her incision sites appeared normal, but Hamilton's responses to a series of questions about her recovery caused concern. Dr. Temple-Oberle advised Hamilton to come back to her clinic at Foothills Medical Centre for more evaluation. A CT scan subsequently showed Hamilton had a pulmonary embolism.

# Surgeons liked the app, and patients felt well-connected when using it

"That app — and Claire — potentially saved my life," says Hamilton. About a third of untreated pulmonary embolisms are fatal, something Hamilton is well aware of as a registered nurse.

In 2023 the prestigious academic

journal JAMA Surgery has published the encouraging results of the study. Although the smartphone app is not currently being used in AHS outside this evaluation context, researchers say apps like it could one day become valuable additions to post-operative care.

"Surgeons liked the app, and patients felt well-connected when using it," says Temple-Oberle, who conceived of the study and was its principal investigator. "The results add to a growing body of evidence that shows apps like these can support patients recovering at home without compromising safety."

The study focused on patients having breast reconstruction or gynecologic oncology surgeries that were performed according to Enhanced Recovery After Surgery (ERAS) guidelines.

ERAS guidelines consist of about 20 different practices before, during and after surgery. They include keeping patients well-nourished, giving them anti-coagulants and pre-operative antibiotics, avoiding cold in the operating room, avoiding the use of long-acting sedatives, using non-opioid pain medications (where alternatives are medically appropriate), using antinauseants, and encouraging patients to move as soon as possible after surgery.

Dr. Gregg Nelson, a co-investigator on the study and a surgeon who helped introduce ERAS in Alberta in 2013, says ERAS patients are being discharged home sooner than anyone could have predicted.

"Better care happens to be faster care," says Nelson. "When you have a supportive team around you it decreases your stress knowing you're connected. Smartphone apps are further extensions of that supportive care team. It's no surprise that we've had a lot of interest from other physicians about how well this app was received."

Hamilton ultimately made a full recovery from the pulmonary embolism after treatment with blood thinners.

"I fully endorse the app," adds Hamilton. "It had a huge impact on my recovery and played a big role in the diagnosis of my pulmonary embolism. At first, I thought it was just an extra thing to do, but it was really comforting knowing my responses and results were being reviewed."

This smartphone app research project was made possible thanks to the generosity of Alberta Cancer Foundation (ACF) donors.

Other researchers involved in the project include Dr. Spencer Yakaback, Carmen Webb and Golpira Elmi Assadzadeh. Drs Temple-Oberle and Nelson are on faculty at the Cumming School of Medicine at the University of Calgary and members of the Arnie Charbonneau Cancer Institute.

Effect of Smartphone App Postoperative Home Monitoring After Oncologic Surgery on Quality of Recovery: A Randomized Clinical Trial, appeared in the April 12 online edition of JAMA Surgery.

*This story was posted to ahs.ca in April 2023.* 

Madeleine Hamilton, third from left, took part in a proof-of-concept study that evaluated a smartphone app for post-operative recovery. She is shown here with app researchers, from left, Drs. Spencer Yakaback, Claire Temple-Oberle and Gregg Nelson.

Photo by Greg Harris

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## **Connect Care innovation sees** patients discharged faster

# Red Deer team uses Traffic Lights tool to trim stays in emergency

#### WRITTEN BY JONATHAN KOCH

A Connect Care-driven innovation is improving care-team collaboration and getting patients home sooner at the Red Deer Regional Hospital Centre (RDRHC).

While the hospital is where one wants to be if they're sick or injured, the longer a patient is in hospital, the more likely it is they'll lose muscle mass and develop health complications, says Dr. Adam Hall, a specialist in internal medicine and critical care medicine at the hospital.

#### Emergency department stays for admitted patients have been cut to 29 hours from an average of 50 hours

"So, the faster we can turn people around, the more likely they are to be able to go home with the same level of functioning that they had coming in," adds Hall.

To ensure patients have a clear timeline to return home for recovery, care teams aim to assign inpatients an Expected Discharge Date (EDD) within 48 hours of entering the hospital. EDDs are reviewed and updated regularly during RAPID (Review, Assess, and Plan for Imminent Discharge) Rounds, where all members of the care team work together to achieve the target date.

While EDD and RAPID Rounds are intended to address barriers to a prompt discharge, difficulties getting the care team together in-person to exchange information can delay patients returning home.

To counter this, when Connect Care came online in Red Deer in November 2022, staff identified an opportunity to use the platform to improve communication and awareness of discharge readiness.

The RDRHC Medicine program partnered with Clinical Quality Improvement (CQI) and — after consulting with the CoACT Collaborative Care team — started using the Traffic Lights tool in February, an extension of the RAPID Rounds process used in AHS facilities throughout Alberta.

This colour-coded multidisciplinary readiness summary — commonly

referred to as Traffic Lights — enables members of the care team to indicate a patient's discharge-readiness status on the Connect Care platform by selecting a red (not ready, remains acute), yellow (waiting for something), or green light (ready to discharge).

Since the launch of Connect Care, the frequency of EDDs being assigned to patients within 48 hrs. of admission has improved to 97 per cent from 36 per cent.

With improvements in patient flow, emergency department stays for admitted patients have been cut to 29 hours from an average of 50 hours.

This innovation has been a gamechanger, says Mike Dew, manager of the neurology and medicine unit at RDRHC.

"Traffic Lights allows us to address barriers to discharge in a faster fashion, whereas before Connect Care, there was often a delay to find out whether a patient was cleared by all the members of the care team. Now we know in real time what needs to be addressed so we can advocate for the patient," says Dew.

# Minimally invasive heart bypass surgery a first in Alberta

#### Procedure offers cardiac patients shorter recovery times

#### WRITTEN BY BLAIN FAIRBAIRN

A Calgary surgeon completed the province's first minimally invasive direct coronary artery bypass (MIDCAB) surgery at Foothills Medical Centre in early 2023.

Cardiac surgeon Dr. Daniel Holloway grafted a blood vessel onto the patient's heart to create a new path for blood to flow around a blocked artery – while the patient's heart was still beating.

Traditional bypass surgery involves a full sternotomy: the patient's breastbone is split apart to access the heart, which requires the patient to be on a heart and lung machine. With MIDCAB, the surgeon enters the chest cavity through a five- to seven-centimetre incision between the ribs, a much less invasive procedure.

"Now we have a minimally invasive option for eligible patients requiring a single bypass," says Dr. Holloway, a clinical associate professor in the Department of Cardiac Sciences at the Cumming School of Medicine. "It's very satisfying from a professional standpoint as the procedure is less complex and invasive. For patients, the recovery time is much shorter and easier."

Calgarian Chris Kennedy was the second patient in the province to undergo the procedure when he had MIDCAB surgery in January. While he was surprised with the diagnosis he'd received just a month earlier, he said his experience has been positive and praised his care team's efforts.

"I was told in late December that I had a pretty significant blockage in my heart and that I would require surgery," says Kennedy. "I was shocked because, at 40, and being healthy, you don't expect to have heart problems. I have no family history of heart disease, I don't have diabetes, and I have never smoked.

"I received fantastic care," he adds. "Three days after the surgery, I had regained a lot of my mobility, and I was able to drive just 10 days after my surgery and return to work."

Sternotomy patients cannot drive for six weeks post-operation and generally return to work after two months. In addition to recovery times with MIDCAB being shorter, the procedure may also result in fewer complications since it is done on a beating heart with no need for a heart-lung bypass machine.

Dr. Holloway and his colleague, Ganesh Shanmugam, received MIDCAB training at Peter Munk Cardiac Centre at the Toronto General Hospital through funding and leadership support from the Libin Cardiovascular Institute. The procedure is relatively new and only done at a few sites in Canada.

"This has been a massive team effort," says Dr. Holloway. "Not only did we have support from our leadership, but we also collaborated closely with our cardiac anesthesia group. Nursing, cardiology and surgical staff also played a big role."

Cardiac anesthesiologists Dr. Christopher Noss and Dr. Douglas Seal also received MIDCAB training. The procedure requires specialized anesthetic techniques, including lung isolation or one lung ventilation; blood pressure and heart rate manipulation; and pain control, including unique nerve block techniques.

Dr. Noss is grateful to have taken part in Alberta's first MIDCAB surgery and is confident the program will continue to grow. "It's rewarding to be part of an innovative team and to be pushing things forward," says Dr. Noss. "This is a procedure that adds to our minimally invasive and enhanced recovery programs. It is safe and improves the quality of our patient's recovery. It's exciting to see that we are making a difference for patients."

Foothills Medical Centre is currently the only site in Alberta offering the surgery. As more surgeons and anesthesiologists receive the required training, it is anticipated more eligible patients across the province will benefit from MIDCAB.

Approximately 900 coronary artery bypass surgeries are performed at Foothills annually.

*This story appeared on ahs.ca in July 2023.* 



In early 2023, Chris Kennedy, centre, was the second patient in the province to undergo minimally invasive direct coronary artery bypass surgery. Here he's with cardiac anesthesiologist Dr. Christopher Noss, left, and Cardiac surgeon Dr. Daniel Holloway.

Photo by Leah Hennel

# Digital mental wellness tool available for youth

#### e-Mental Health platform supports measurement-based care

#### WRITTEN BY SHELLEY RATTRAY

For two years, EmmaLiese Thomsen has been getting help from Innowell, an e-Mental Health tool for young adults, as part of the eMH Youth Research Project within Alberta Health Services (AHS) and the University of Calgary.

#### Innowell is currently available in 10 communities through 327 care providers

However, this isn't the 19-year-old's first experience with mental health assistance.

"I've been in therapy basically all my life," she explains. "But I'm really supported with this tool."

As a youth mental health advocate, Thomsen is actively involved in aiding others in their recovery. She collaborates with the AHS team to implement the Innowell tool in AHS Addiction & Mental Health (AMH) clinics and Primary Care Networks.

The Innowell e-mental health platform provides assessment tools, apps and e-tools along with online resources about clinical services. Young people between 15 and 24-years-old can use this tool through participating schools, physician clinics or community AMH clinics.

Innowell is currently available in 10 communities through 327 care providers. Young people, along with their care team, can access the platform which provides evidence-based supports including measurement-based care, digital supports and crisis options. "Using this tool is so rewarding because I can see how far I've come," says Thomsen.

Innowell has also allowed the teen to use her time with clinicians in a different, more efficient way. "We can just jump right into things because I've been updating my progress and they've been able to see how I've been doing in between appointments."

In addition to free apps, e-tools and resources, client progress is tracked and measured over time. Data is gathered and used collaboratively, by the provider and client together, to guide treatment and improve communication.

"We know youth are comfortable with using apps and using online platforms," says Ella-Jean Schatzmann, who works out of the Addiction & Mental Health clinic in Bow Valley. "For us, it was just a little bit about catching up with that and really meeting our youth where they're at, because this is the future. This is a really good opportunity to start to integrate technology in our care.

"We just know how important access is — and having goal-focused care is critical to that. This platform and these tools really help keep the care focused and prioritize the things that clients indicate matter the most. It's a good tool to ensure that we're maintaining that focus and the priorities that the youth indicate to us."

Once the project concludes in June, the research and evaluation team will

determine the impact of e-Mental Health as a support to existing systems. They will assess its impact on the experience of delivering and receiving care, clinical outcomes for youth and young adults, and mental health-related emergency department visits.

The project is funded by \$1.9 million by the Alberta Children's Hospital Foundation, \$1 million from Alberta Innovates, and \$2 million from the Alberta Health Addiction & Mental Health COVID-19 Response Grant.

*This story was posted to ahs.ca in September 2023.* 



"We know youth are comfortable with using apps and using online platforms," says Ella-Jean Schatzmann, who works out of the Addiction & Mental Health clinic in Bow Valley. "For us, it was just a little bit about catching up with that and really meeting our youth where they're at, because this is the future."

Photo provided to AHS

#### BUILDING FOUNDATIONS FOR OUR FUTURE

# The Summit – mental healthcare for youth



**Photos by AHS** 

The Summit: Marian & Jim Sinneave Centre for Youth Resilience opened its doors to children, teens and families in March 2023.

#### The centre is expected to support about 8,000 more patients and their families every year

The Calgary facility offers therapeutic mental health support through a day hospital and community-based treatment, including walk-in services for anyone under 18 years of age and their family who would like to speak with a counsellor.

The Summit will also be one of the most research-intensive communitybased mental health facilities for young people in Canada, thanks to its collaborative partnership with the University of Calgary.



Three distinct mental health services are available:

- The Owerko Family Walk-In Services offers no-cost therapy sessions for children, youth and families who need help with specific issues and possible solutions.
- The Tallman Family Treatment Services helps young people manage acute, escalating symptoms to help prevent or reduce the need for hospitalization.
- The Ptarmigan Day Hospital is the city's first pediatric mental health day hospital, helping youth transition from around-the-clock inpatient care to eight to 10 hours of daily intensive

therapy in a community setting. The centre is expected to support about 8,000 more patients and their families every year, adding new capacity in Alberta.

#### RESEARCH BY THE NUMBERS

In 2022/23., Alberta Health Services received **1,134 requests** to initiate clinical studies (including surveys, physical tests and highly regulated clinical trials).

AHS also supported cancer clinical trials, with **890 patients** enrolled.

A further **5,158 patients** were involved in clinical studies that involved drugs or devices at AHS sites where Connect Care is active, which is more than three times higher than 2022 due to Connect Care now being fully implemented at all major urban medical centres.



### Fundraising success boosts research capability at Cross Cancer Institute

Researchers and medical professionals at Edmonton's Cross Cancer Institute (CCI) will be able to expand on their work revolutionizing cancer treatments, thanks to the Alberta Cancer Foundation (ACF) surpassing its ambitious \$30-million fundraising goal.

The overwhelming response to ACF's We Cross Cancer campaign means capacity for clinical trials at CCI will double, transforming the way clinicians prevent, detect and treat cancer, while providing optimal care for patients and their families.

### Every year, 23,000 Albertans are diagnosed with cancer

"We are thrilled with the outcome of the We Cross Cancer campaign," says Dr. Randeep Sangha, director of Clinical Trials at the Cross Cancer Institute. "Thanks to so many generous contributions, the Cross can build a dedicated clinical trials unit where we will continue to advance our research expertise and provide the best care possible and hope to cancer patients in our community."

#### We surpassed our ambitious \$30-million fundraising goal in just nine months

Every year, 23,000 Albertans are diagnosed with cancer. For some of these patients, clinical trials provide valuable insight and hope. Treatments developed through trials at the Cross Cancer Institute often become the standard of care worldwide.

"The Cross Cancer Institute is a special place for many families, including my own," says Angus Watt, cabinet cochair of the We Cross Cancer campaign. "Increasing clinical trial capacity ensures people living with cancer, primarily those in Alberta, continue to have access to the very best treatments and care close to home and for many years to come."

We Cross Cancer was led by Watt

and fellow campaign co-chair, Cory Janssen, along with a driven cabinet of volunteers.

"This campaign raised awareness and support of the Cross Cancer Institute, an internationally recognized, comprehensive cancer research and treatment centre right here in our city," says Janssen. "Those who graciously contributed are supporting future advancements in cancer care happening today, instead of down the road."

"Thanks to the generosity of our community, we surpassed our ambitious \$30-million fundraising goal in just nine months," says Wendy Beauchesne, CEO, Alberta Cancer Foundation.

"This extraordinary response by the community illustrates how beloved the Cross Cancer Institute is for patients and families in Edmonton and beyond. We Cross Cancer is proof that no one crosses cancer alone. We cross cancer, together."

A version of this story was posted to *albertacancer.ca* in February 2023.

BUILDING FOUNDATIONS

### New cancer centre will supercharge research & innovation

Calgary's new Arthur J.E. Child Comprehensive Cancer Centre will be the largest comprehensive cancer centre in Canada and a world-leading healthcare facility for research and education in oncology when it opens in the fall of 2024





#### **Research highlights:**

- Dedicated research space covering 110,000 square feet.
- 13 research wet labs that will allow researchers access to state-of-the-art technology that assists in sequencing, precision medicine and microscopy.
- Four research groups (dry labs) comprised of scientists, clinicians, technically trained support staff, and trainees whose research covers everything from the development of novel treatment options, to improving patient outcomes, to psychosocial oncology.
- The Arnie Charbonneau Cancer Institute, a partnership between AHS and the University of Calgary, will serve as the research arm for the Arthur Child.

**Photos by AHS** 

