Evidence with Impact

2022 - 2023

Annual Report

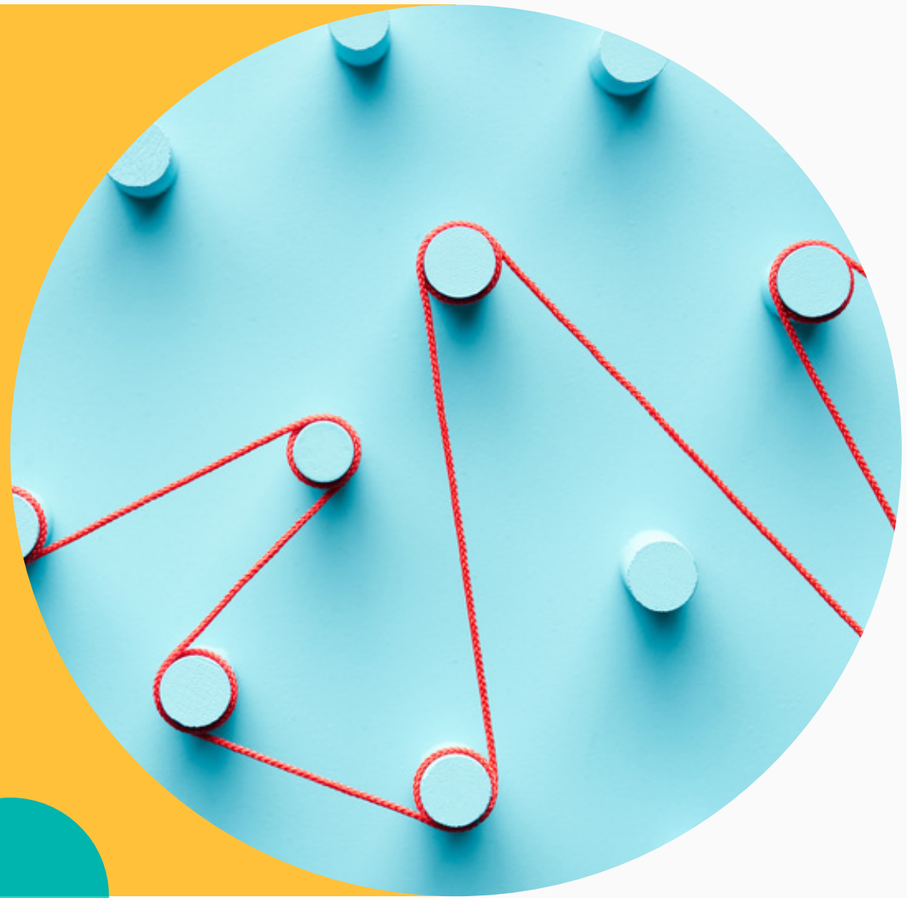
IC/ES Data Discovery Better Health

Population-based health research that makes a difference.

ICES is an Ontario-based analytics and research institute that uses population data to generate meaningful insights to improve policy, healthcare, and health outcomes. ICES researchers access a vast and secure array of Ontario's demographic and health-related data, including population-based health surveys, anonymous patient records, as well as clinical and administrative databases. ICES is recognized as an international leader in maintaining the privacy and security of personal health information.

Our impact.

ICES translates data into trusted evidence that makes policy and healthcare better and people healthier. To achieve this mission, ICES collaborates with data custodians, government, policymakers, health system stakeholders, the Information and Privacy Commissioner of Ontario, members of the public, and First Nations, Inuit, and Métis organizations and communities to expand the scope and impact of ICES' health services analytics and research. Over the past 30 years, ICES has developed eight health research and analytic programs across a network of seven sites in the province and has established a secure remote virtual access platform.

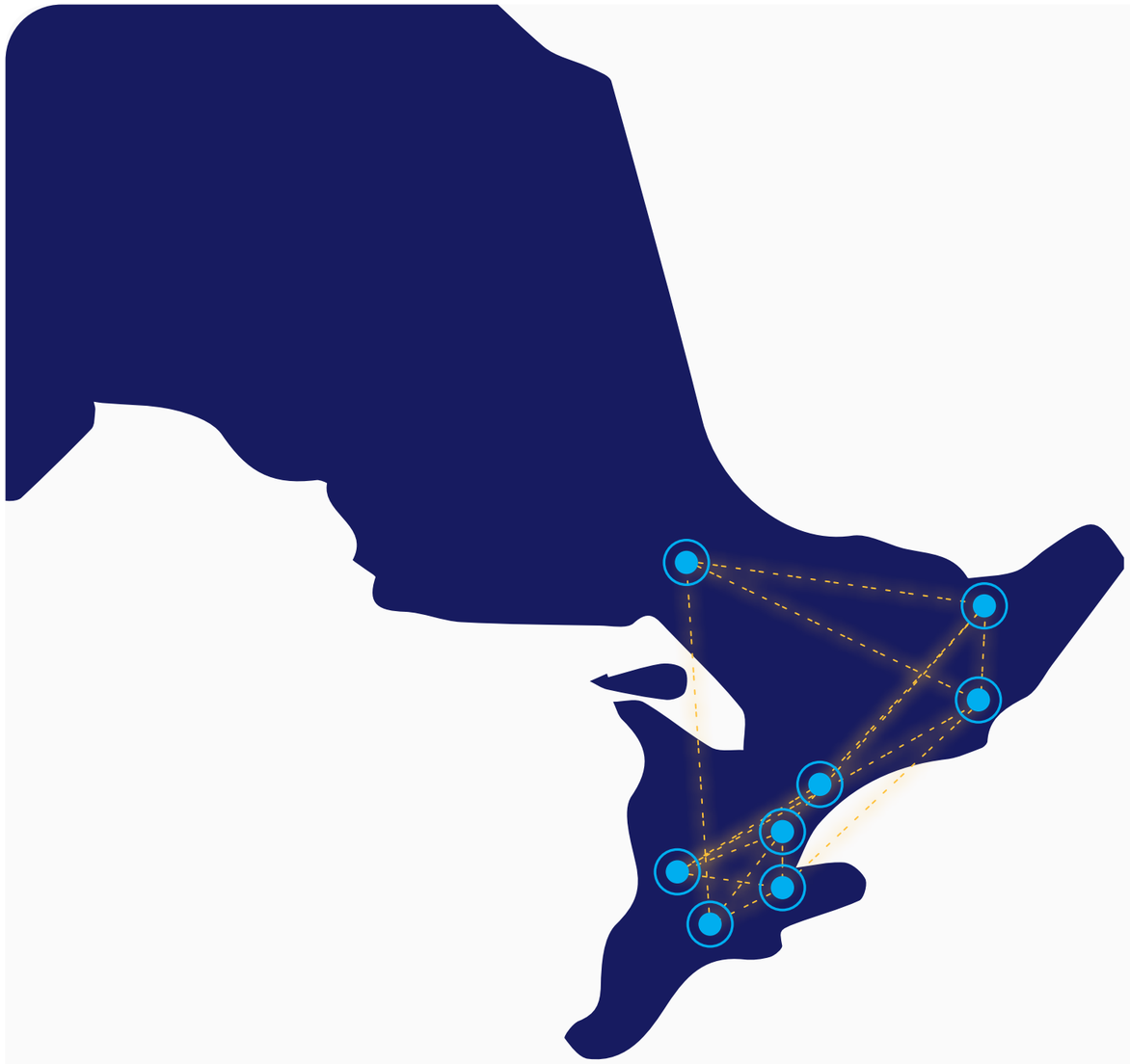


World-class research teams.

ICES is a community of research, data, and clinical experts. Many ICES scientists are internationally recognized, and a number are practicing clinicians who understand the everyday challenges of healthcare delivery. They lead multidisciplinary teams that include expert statisticians and epidemiologists, as well as specialists in knowledge translation, information security and information technology. The diversity within these teams and their expertise at using ICES' outstanding array of linked data sets is the foundation of the innovative approach to research at ICES.

Independence.

ICES is a not-for-profit corporation and registered charity formed in 1992 and receives core funding from the Ontario Ministry of Health. ICES is governed by a Board of Directors and guided by a Scientific Advisory Committee and a Public Advisory Council whose members come from diverse regions and communities across Ontario. The Public Advisory Council is comprised of members of the public from across the province who provide their thoughts, perspectives, and values to inform ICES activities and how ICES uses data to improve Ontario's health system.



A collaborative network across Ontario.

ICES Central is located on the campus of Sunnybrook Health Sciences Centre in Toronto. It supports physical sites at Queen's University in Kingston (ICES Queen's), the University of Ottawa (ICES uOttawa), the University of Toronto (ICES UofT), Western University in London (ICES Western), McMaster University in Hamilton (ICES McMaster), and the Health Sciences North Research Institute in Sudbury in partnership with Laurentian University and the Northern Ontario School of Medicine (ICES North). We also foster an equitable environment that makes our data and analytic resources accessible to non-ICES researchers, scientists, students, and knowledge users, with dedicated and specialized staff and service models to respond to requests. These services are part of our commitment to improving health and healthcare in Ontario, guided by the principles of public benefit and transparency.

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> As stewards of Ontario’s health data, we’ve always looked beyond the numbers. We are focused on the tangible impacts of ICES research and analytics on the lives of our community.

Letter from the CEO

Michael Schull
Chief Executive Officer

> With over 2000 publications in the last three years alone, ICES is one of the world’s most productive health data research institutes

2022 marked a year of reflection and evolution for ICES as we closed out our three-year strategic plan and laid the foundations to launch a refresh in 2023. As stewards of Ontario’s health data, we’ve always looked beyond the numbers. We are focused on the tangible impacts of ICES research and analytics on the lives of our community. By leveraging equity-informed approaches, we facilitated research and analytics for positive health system and policy changes, and better health for everyone.

A promising vision for improving health equity in Canada hinges on the inclusive participation of voices and leadership across our society, including organizations, communities, and individuals. As we enter our next chapter, we acknowledge that being custodians of health-related data is a privilege. To ensure more equitable health outcomes, we must level the playing field and help make evidence accessible to everyone. ICES will continue to carve pathways for public and equity-deserving communities to access research and analytics because trusted data is pivotal to improving healthcare, together.

With over 2000 publications in the last three years alone, ICES is one of the world’s most productive health data research institutes. This success highlights the dedication of our scientists and the staff who support them. I am particularly proud of the many examples of research and analytics having an impact and leading to actionable solutions for Ontario’s most pressing healthcare needs, several of which are profiled in this Annual Report.

As Ontario’s population ages, the work of Dr. Paula Rochon and the Women’s Age Lab is focused on improving the well-being of older women through science-driven health and social change. The four areas include combating gendered ageism, reimagining aging in different care settings, optimizing therapies, and promoting social connectedness. The iKASCADE project, in particular, explores the impact of prescribing cascades on older Ontarians with findings presented on the international stage.

Dr. Michael Schull
Chief Executive Officer

> To ensure more equitable health outcomes, we must level the playing field and help make evidence accessible to everyone

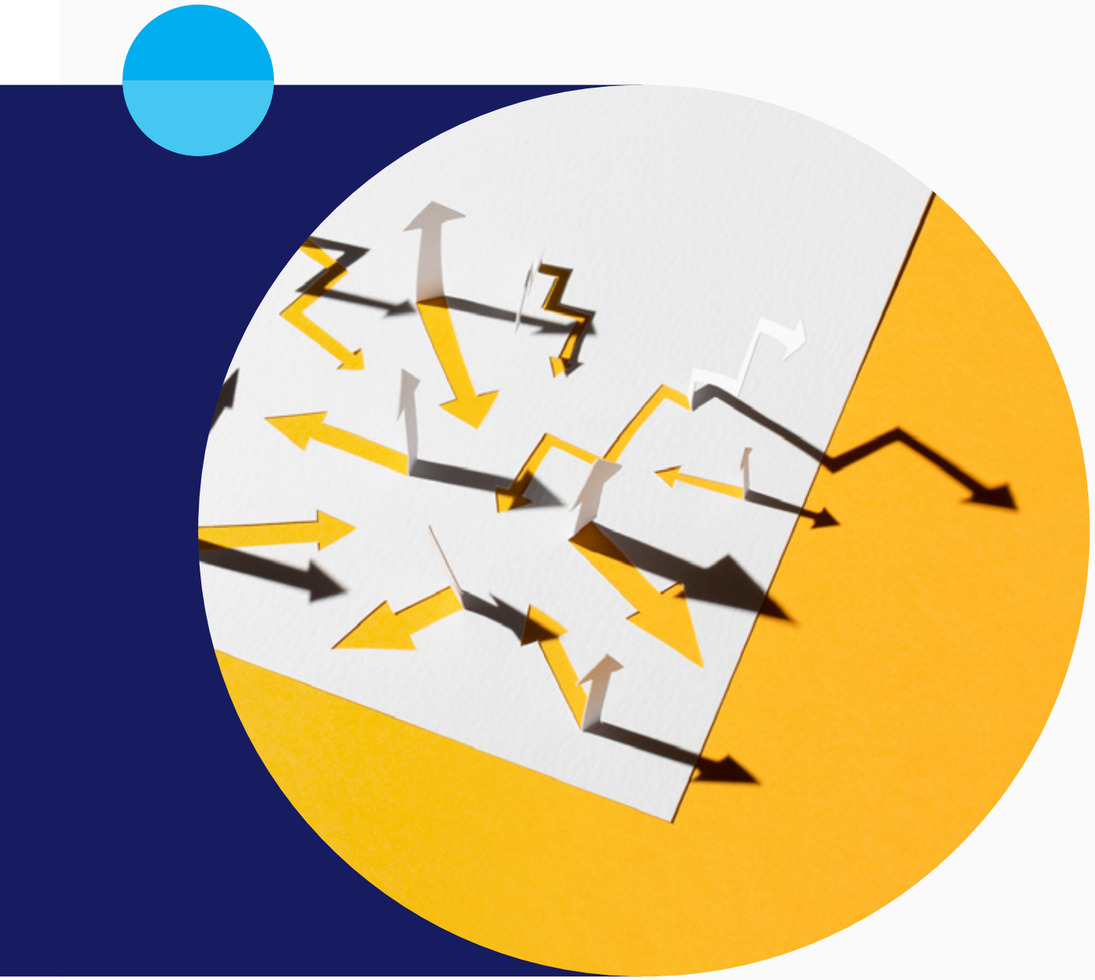
Canada faces a significant opioid crisis, especially affecting pregnant women, with First Nations communities being disproportionately impacted. This research project partnered with 13 First Nations communities in Ontario, aiming to understand the effects of prenatal opioid exposure and neonatal abstinence syndrome on children and their communities. Despite challenges, the communities showed resilience and identified strategies such as trauma-informed care, training, and cultural integration to address the issue.

ICES continues its critical work to advance randomized trials. In July 2023, ICES researchers published the outcomes of two influential trials: MyTEMP and COACH. MyTEMP investigated cooler dialysis fluid's impact on cardiovascular health, concluding it did not offer benefits and increased discomfort for patients. The COACH trial introduced a decision support tool for heart failure patients, resulting in reduced hospitalizations and deaths. Both trials showcased the immense opportunity to leverage ICES data and innovative trial methods in order to guide treatment decisions, improve services, and enhance patient care.

Our research team has also developed important tools to help individuals understand and prevent dementia and chronic kidney disease (CKD). Online risk calculators, created by ICES researchers, offer a practical way to raise awareness and encourage lifestyle changes, and have the potential to change lives and inform the future of healthcare in Canada and beyond. The Dementia Calculator, based on the DemPoRT algorithm, had half a million users in the first five days after launch, while the Chronic Kidney Disease Calculator (CKD pop-T) had 10,000 users in the first month.

We recognize that achieving positive change requires an enduring commitment to continuous listening and learning. ICES remains deeply committed to engaging with Indigenous, First Nation, and Métis communities in Ontario. We have formed a valuable partnership with Weeneebayko Area Health Authority (WAHA) in developing important data projects for communities in the James Bay and Hudson Bay Region in Northeast Ontario. WAHA sought to improve access to health data for remote Indigenous communities, focusing on the Mushkegowuk Cree population of around 12,000. Established in 2018, our partnership aimed to strengthen Indigenous data stewardship and provide crucial health information to community leaders. Our partnerships with Indigenous organizations and communities in Ontario have grown stronger, enabling us to support them as they seek to use data to address their priority challenges.

To succeed over the long haul, you need a steadfast and committed team day in and day out. The dedicated members of the ICES Board of Directors, Scientific Advisory Committee, and Public Advisory Council, as well as scientists, staff, students, partners, and stakeholders, precisely exemplify that. It also requires long-term support, and we are grateful to our key funders, the Ontario Ministry of Health and the Ontario SPOR Support Unit. As we launch a new strategic plan this coming year, we will continue to drive discovery, expand our partnerships, and deepen our engagement with equity-deserving communities in Ontario, all of which are critical to remaining true to our mission. I invite you to explore this annual report to learn more about the impact of ICES' work over the past year and follow our progress forward.



Board of Directors

April 1, 2022
to March 31, 2023

Chair

Kevin Smith
President and CEO, University Health Network

Directors

Helen Angus
CEO, AMS Healthcare
Chair, Board of Public Health Ontario

Jane Badets
Former Assistant Chief Statistician, Statistics Canada

Dev Chopra*
Principal, CJEM Advisory Services Inc.

Mark Daley
Chief Artificial Intelligence Officer, Western University

Charmaine Dean
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Donna Kline
Chief Communications and Engagement Officer, Ontario Health

Bella Martin
Former General Counsel and Chief Legal Officer, University Health Network

Roger Strasser*
Professor of Rural Health, University of Waikato; Founding Dean Emeritus, Northern Ontario School of Medicine

Sarita Verma
Dean, President and CEO, Northern Ontario School of Medicine

*Retired from the board in June 2023

Our People

ICES is a community of research, staff and scientists located at seven sites (Central, McMaster, North, Queen's, UofT, uOttawa, Western) across Ontario. People outside of our organization can also access data to answer important research questions. This is part of our commitment to keep data accessible.

Year in Numbers

Scientist and Staff	Scientists	Staff
608 ▲	**296** ▲	**312** ▲
4% increase from 2021/22	4% increase from 2021/22	4% increase from 2021/22

44% of scientists work from satellite sites

36% of research staff work from satellite sites

632 graduate, medical and post-graduate trainees mentored by ICES scientists

298 graduate students accessing ICES data

Research Capacity

Since 1992, ICES scientists and data experts have been developing and expanding the ICES data repository, which includes a vast, secure number of linked and encoded health-related data. New data partnership increase research capacity to inform the delivery of evidence-based healthcare in Ontario, across Canada and abroad.

Year in Numbers

7
sites across Ontario

8
research programs

117
data holdings

122
new data sharing agreements and amendments executed

12
primary data collection studies involving 47 sites

45%
overall grant success rate on 202 submissions

147
CIHR Project Grants awarded, plus **an additional 33 bridge and priority announcement grants**

Knowledge Generation

In addition to projects led by ICES scientists, the ICES Data & Analytic Services division (ICES DAS) and Applied Health Research Question Program (AHRQ) offer services to researchers and students to access research-ready, linked health administrative data and analytic tools. The goal for these programs is to inform planning, policy or program development that will benefit the Ontario healthcare system.

Year in Numbers

352
new investigator-driven projects

20
completed AHRQ requests

1174
ongoing investigator-driven projects

143
public and private sector requests to ICES Data & Analytic Services (DAS)

32
new AHRQ requests **received from 26 unique knowledge users**

584
peer-reviewed publications

Knowledge Translation

ICES strives to translate research findings through investigative reports, media releases, infographics and our website, with the intent to engage researchers, stakeholders, healthcare leaders, and the public in important dialogue around healthcare practice and policy change.

Year in Numbers

824 ▲
participants at ICES' 2023 Forum

16,785
X followers

35%
website visits are from outside of Canada

57%
media coverage was international

44
ICES infographics produced to help disseminate key research findings

177
media hits per month on average (2,120 total)

Evidence with Impact

Discover how our work with scientists, partners, and communities is having an impact and creating better health and healthcare for everyone.

Impact Stories

01

Online calculators improve awareness of individual health risks

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Ground-breaking clinical trials have positive impact on patient health

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Making older women count

01 Online calculators improve awareness of individual health risks

Background

Dementia and chronic kidney disease (CKD) are both chronic conditions with known modifiable risk factors. Lifestyle changes can prevent or delay these diseases, but many people do not know their risk. Online risk calculators that can be completed at home using self-reported lifestyle behaviour and health information serve as a practical solution to improve awareness of dementia and CKD and their risk factors. These tools may encourage people to reflect on their lifestyle habits and make changes to reduce their risk of disease. Additionally, tools that use information collected at the population-level may also be used to estimate the population risk of disease and inform population-level prevention strategies and planning.

ICES Research Highlights

Researchers at ICES, including Dr. Douglas Manuel and Dr. Peter Tanuseputro, have developed two new risk algorithms to estimate the risk of developing dementia and CKD using data from the Canadian Community Health Survey linked to ICES administrative data. Both tools have been added to the catalogue of calculators at Project Big Life, which provides Canadians with an accessible avenue to understanding how their lifestyle habits influence their health.

The Dementia Calculator empowers people to better understand the health of their brain and how they can reduce their risk of being diagnosed with dementia. The underlying algorithm, the Dementia Population Risk Tool (DemPoRT), led by Dr. Stacey Fisher, predicts the risk of being diagnosed with dementia in the next five years for those aged 55 years and older using self-reported information about age, ethnicity, immigration status, health conditions and lifestyle behaviours. Completing the online calculator provides the user with a report that recommends how they can modify their lifestyle to improve their brain health and reduce their risk of dementia.

Dr. Manish Sood led a similar project to develop the Chronic Kidney Disease Calculator to improve awareness of CKD and to empower and personalize care for patients. The underlying algorithm, the CKD population tool (CKD pop-T), predicts risk of early eGFR decline (an indicator of kidney function), which is associated with early-stage CKD. Self-reported information about your age, lifestyle factors (smoking, alcohol, physical activity), illnesses (diabetes, hypertension, cancer) and, optionally, your baseline eGFR level, are used. This tool stands out from existing health predictive models by not requiring lab values or blood pressure, making it easy for the general public to complete on their own.

How this work is having an impact:

- The Dementia Calculator saw over 250,000 unique users from 201 countries in the first five days following launch and had a total media reach of over 300 million.
- The DemPoRT algorithm has been integrated into Statistic Canada's population health microsimulation model and is being used by the Public Health Agency of Canada to assess dementia prevention strategies and support Canada's national dementia strategy.
- The CKD Pop-T is a "first of its kind" calculator designed to assess the likelihood of early CKD development through an evaluation of lifestyle factors. This innovative tool has garnered attention from more than 30 prominent media outlets.

02 Ground-breaking clinical trials have positive impact on patient health

> Our team intends to expand the use of these methods to conduct more large-scale, high-quality, pragmatic trials. With the support of CIHR, we recently launched a national training program, the HDRN Pragmatic Trials Training Program, which will coach researchers through the complicated art of conducting such trials.
>
> **- Dr. Amit Garg**

Background

Pragmatic trials are large-scale randomized clinical trials that test interventions by embedding them directly into routine care in the same manner they would be implemented after the trial is complete. To be efficient, many of these trials make use of administrative healthcare data, such as the data housed at ICES. Two trials completed in 2022 demonstrate the real-world impact of clinical trial advancement for patient health.

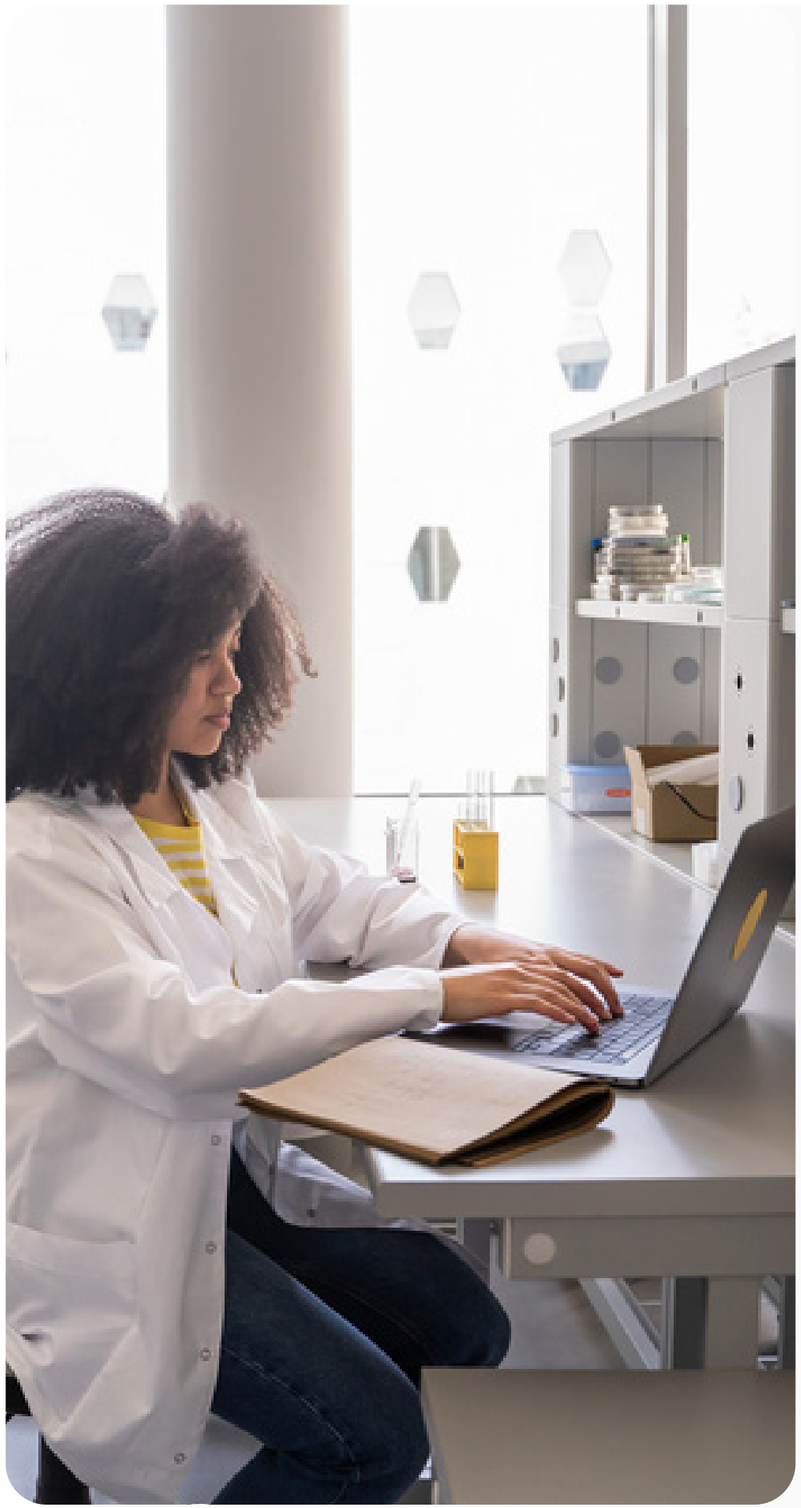
ICES Research Highlights

The ICES Kidney, Dialysis & Transplantation team, led by the program lead, Dr. Amit Garg, conducted MyTEMP, a ground-breaking pragmatic trial to determine whether providing dialysis with cooler fluid reduces the risk of cardiovascular-related hospital admission or death compared with using standard temperature dialysis fluid.

The MyTEMP team found that adopting a centre-wide policy of personalised cooler dialysis fluid did not reduce the risk of major adverse cardiovascular events or death and increased the likelihood of patient discomfort. The trial resulted in five publications, and recommended that cooler dialysis fluid should not be adopted as a centre-wide policy.

The COACH trial, led by Dr. Douglas Lee, program leader of the ICES Cardiovascular Program, involved 10 hospitals in Ontario, and 5,452 patients presenting to the emergency department with heart failure. Hospitals were randomly assigned to crossover from usual care to a decision support tool intervention that discharged low-risk heart failure patients from hospital, with rapid follow-up in an outpatient clinic. High risk patients were recommended for admission to hospital.

The use of the tool was associated with a 12 per cent reduction in the rate of all-cause death or cardiovascular hospitalization over 30 days, and a continual decrease over the 20-month follow-up. The trial was presented as a late-breaking trial at the American Heart Association and was published simultaneously in the New England Journal of Medicine. It has led to new models of acute heart failure care, which is a leading reason for hospitalizations and readmissions globally.



> The ability to conduct randomized trials using the hybrid of clinical or registry data combined with administrative databases at ICES is a highly efficient way to test interventions, while maximizing participant inclusiveness. We will continue to utilize this innovative approach to generating high quality evidence in the future.
>
> **- Dr. Douglas Lee**

The MyTEMP and COACH teams used several innovative methods, including:

- Use of routinely collected data housed at ICES to reliably assess baseline characteristics and/or outcomes.
- Linkage of routinely collected data with multiple administrative healthcare databases, to help determine patients' trajectory throughout the system of care.
- Integration of the intervention into routine care with minimal healthcare disruption.
- Inclusion of all patients receiving care at 84 dialysis centres across Ontario (MyTEMP) and all patients with heart failure who presented to the emergency department (COACH Trial), answering whether the interventions improve outcomes for the populations without participation bias.

How this work is having an impact

- After the publication of the MyTEMP results, dialysis centres which had switched to cooler dialysis fluids reverted back to standard-temperature dialysis fluid to make treatments more comfortable.
- The MyTEMP trial is the largest trial of patients receiving maintenance hemodialysis published to date; it included over 95% of maintenance hemodialysis patients in Ontario during the trial period, totaling more than 15,000 patients who had more than 4.3 million dialysis treatments. It shows it is possible to efficiently conduct large-scale trials with innovative methods to generate high-quality evidence and optimize the delivery of hemodialysis care.
- The COACH trial is one of the few successful health system intervention trials for acute heart failure, and the approach is being adopted at hospitals in Ontario to improve efficiency and safety of care for patients with heart failure.
- The COACH trial also provides evidence that predictive models and clinical decision rules may have a substantial impact that benefits patients, hospitals and the healthcare system; it also demonstrates the feasibility of testing predictive models using a randomized trial design.

03 Prenatal Opioid Exposure and Neonatal Abstinence Syndrome: A Research Project with 13 First Nations Communities in Ontario

Background

Canada has been significantly impacted by the global opioid crisis and has some of the highest rates of opioid use in pregnancy worldwide. Prenatal opioid exposure can result in infants being born in withdrawal (called neonatal abstinence or neonatal opioid withdrawal syndrome) and is associated in some cases with several poor longer-term health and developmental outcomes. First Nations communities have voiced significant concerns regarding opioid-related harm and deaths, including those affecting pregnant women. For these communities, opioid addiction is often the result of individual, collective, and intergenerational trauma, and those same communities hold the knowledge and solutions to support intergenerational healing.

This research project was initiated in response to concerns raised by several First Nations communities in the lower half of Ontario about the health of school-age children exposed to opioids prenatally. To address the issue, 13 First Nations participated in this project. By working in partnership with the project team led by ICES scientists Astrid Guttmann, Serene Kerpan and Jennifer Walker, communities aimed to learn more about the impact of prenatal opioid exposure on children, mothers, families and caregivers, service providers and educators, and their communities as a whole. The project encompassed both health record data analyses at ICES and, for 11 communities, qualitative research with community members with lived experience. We recognize the Chiefs of Ontario for their leadership and foundational data governance work that enabled this research, and the CHILD-BRIGHT Network, which funded the work.

ICES Research Highlights

Prenatal opioid exposure has far-reaching impacts on First Nations communities. In the focus groups and interviews, participants spoke about the relationship between addiction, individual trauma, and the impacts of intergenerational trauma related to the residential school experience. Issues of stigma, judgement, anti-Indigenous racism, and access to services were identified as major barriers for mothers to receive care and support. The health record data showed that 10.2% of babies born in the 13 participating First Nations between 2013 and 2019 had prenatal opioid exposure (compared to 1.7% of all babies born in Ontario) but rates have decreased since 2015. Most prenatal opioid use in the 13 communities was for mothers being treated for opioid use disorder.

Despite the challenges, the findings underscore the many strengths and programs that already exist in these First Nations communities. Participants recognized the gifts and strengths of children with prenatal opioid exposure and the community of people working to make positive changes. Community members discussed potential innovative and evidence-based strategies, including treatment centres which could accommodate children, trauma-informed treatment and care, enhanced training for educators and service providers, respite for families and caregivers, and changes to the child protection system. Addressing intergenerational trauma and continuing integration of culture into community life were seen to be critical to prevention.

How this work is having an impact:

- Each of the 13 First Nations communities worked with ICES to define which data were included in their community-specific report. These findings are now with each community and being presented to both their leadership and wider membership.
- In some communities these reports have already led to greater awareness of the problem.
- One First Nation used the data to obtain funding to expand their community-based healing, treatment, and recovery programs and services.
- All of the communities are collaborating to develop knowledge translation tools and come together to share ideas on solutions.

WAHA Partnership with ICES: a success story in data report development and much more...

Background

The health of a population can be evaluated by tracking disease trends, patterns of health services use, and assessing barriers to healthcare. The ability to access health data is vital, especially for remote communities.

The James and Hudson Bay Region in northeast Ontario includes the communities of Peawanuck, Attawapiskat, Kashechewan, Fort Albany, Moosonee (municipality) and Moose Factory (with Moose Cree First Nation and MoCreebec Eeyoud). The Weeneebayko Area Health Authority (WAHA) serves a population of approximately 12,000 people, of which the majority are Mushkegowuk Cree.

To improve access to regional health data, WAHA's Minomathasowin–Healthy Living Public Health Department explored options for developing partnerships with health research organizations like ICES. WAHA's goal was to co-create enhanced Indigenous data stewardship for the region while providing community health leaders with the necessary information they need to address ongoing health challenges.

In 2018, WAHA and ICES formalized their partnership, supporting local health initiatives and ensuring access to data for the region. Minomathasowin continues to identify public health priorities, engages with local health leaders, responds to community-driven health questions and leverages multiple data sources including population-level ICES data.

ICES Research Highlights

Through a community-driven strengths-based approach, local knowledge and Indigenous data governance principles guide the direction of the Minomathasowin research initiatives, and local data ownership is supported.

Population-level data housed at ICES has been used in several projects, including a one-time report of the region's pandemic experience, with an overview of COVID-19 cases, hospitalizations, mortality, and vaccine progress up to December 2022 and ongoing quarterly updates beginning January 2023. Regular access to timely COVID-19 data helped keep people safe and helped WAHA and community leaders develop effective interventions.

Other projects include:

1. Health surveillance of 19 common chronic diseases, to better understand how people with these diseases use and access health services.
2. An ongoing project with the University Health Network in Toronto to create a profile of individuals living with or at risk of congestive heart failure, supporting increased access to cardiovascular care and screening.
3. Exploring the main reasons for visits to WAHA's emergency departments.
4. Analyzing regional and local medical transportation data, to understand the key reasons why individuals travel outside their communities for healthcare.
5. Research questions from community organizations, including tuberculosis data analysis, appointment no-shows, lupus, and other autoimmune diseases.

How this work is having an impact:

- Access to health information including data housed at ICES improved Minomathasowin's ability to analyze regional demographics and health trends to produce health status reports. The information enables communities to work towards improving the quality of life for community members.
- By reducing barriers to data access, Indigenous data stewardship is strengthened. This can empower sustainable self-determination and effective self-governance in Indigenous communities.
- The results are shared with communities for health planning, decision making and to develop funding applications. For example, a mental health and addictions report helped augment services across the region.
- WAHA has become a regional health data hub, with a growing number of projects supported by ICES data analysts and a staff scientist.

05 Making older women count

Background

The Women's Age Lab is a space for exploration and collaboration on science-driven health and social change that will improve the lives of older women. Born out of a need to bring sharp focus to this critical topic, the lab is committed to advancing science, putting research into action, and raising awareness about, and advocating for, the unique needs of older women. To achieve this, all data should be disaggregated by sex and age to generate knowledge about older women in all areas of research.

The research is centered around four key areas of action that are aligned with international initiatives:

1. Addressing gendered ageism;
2. Reimagining aging in place and congregate care;
3. Optimizing therapies and prescribing; and
4. Promoting social connectedness.

ICES Research Highlights

ICES data has been used to perform high-quality research that has raised awareness about polypharmacy among older women. Prescribing cascades happen when the side effect of a medication is treated with a potentially unnecessary and harmful second drug, and these cascades are a significant contributor to polypharmacy.

In 2019 the project iKASCADE (Identifying Key Prescribing CASCADes in the Elderly: A Transnational Initiative on Drug Safety; funded by GenderNET) was launched by ICES scientist Dr. Paula Rochon with colleagues from Women's College Hospital (WCH) and international partners. The aim is to explore how older individuals are affected differently by prescribing cascades and how prescribers treat their patients based on sex and gender. Along with ICES population-based data, five other databases (containing data from 14 countries) were analyzed to compare sex, age, and gender-related socio-cultural factors included in these data and to explore their association with polypharmacy.

As the number of potential prescribing cascades grows, there is also an urgent need for simple, context-specific tools so that healthcare providers can identify relevant prescribing cascades to make better deprescribing decisions. With funding from a CIHR project grant, the research team applied novel techniques to create a prioritized list of prescribing cascades based on how frequently a drug that initiates the cascade is prescribed and the likelihood that the cascade occurs. Symmetry analyses are methods being used to document the prescription sequence and have been applied to ICES population-level drug prescribing data on older adults.

Studies are also underway using ICES data to explore serious adverse events (emergency room visits, hospitalization, and death) due to prescribing cascades, as well as retirement home data on differences between older women and men among different settings of care along with socio-demographics, health status, and healthcare system utilization.

How is this work having an impact

- The iKASCADE GenderNET work has been presented Internationally at the European Geriatric Medicine Society Conference (EuGMS) in London and GenderNET Conferences in Paris and Brussels. The research team will head back to Europe to do a symposium for EUGMS in the fall of 2023 in Brussels.
- In 2022, a self-paced, interactive module was created by WCH scientist Robin Mason as part of the WCH Health Researcher's Toolkit. It shows why disaggregating data by sex and age is crucial to advancing health and socioeconomic equities, potential problems that can occur when they are not considered, and how some conditions and treatments differ by sex and age.
- Women's Age Lab is raising the profile of older women, which is often overlooked in medical literature and the media. In particular, ICES adjunct scientist Dr. Rachel Savage has explored the issue of loneliness among older people and has found female sex is an independent risk factor for polypharmacy and that older immigrant females experience greater levels of loneliness.

Statement of Financial Position

As at March 31, 2023
(in thousands of dollars)

ASSETS	2023	2022
Current Assets	$	$
Cash	12,681	10,972
Accounts receivable	2,943	2,708
Prepaid expenses	910	1,170
Restricted investments	—	2,347
	16,534	17,197
Capital assets	733	821
	17,267	**18,018**
LIABILITIES AND FUND BALANCES		
Current Liabilities		
Accounts payable and accrued liabilities	2,933	2,739
Deposit in trust	—	2,347
Deferred revenue	4,391	4,107
Due to Sunnybrook Health Sciences Centre	659	373
	7,983	9,566
Post-employment benefits	905	939
Deferred capital grants	733	821
	9,621	11,326
General fund	7,646	6,692
	17,267	**18,018**

Statement of Operations and Changes in Fund Balances

For the year ended March 31, 2023
(in thousands of dollars)

REVENUE	2023	2022
Current Assets	$	$
Grants – Ministry of Health	17,728	15,158
Grants and other revenue	15,070	15,699
Amortization of deferred capital grant	262	429
Interest income	299	43
	33,359	**31,329**
EXPENDITURES		
Employee costs	27,298	25,128
Contracted services	272	86
Information, technology and cybersecurity	2,151	2,112
Office and general	726	455
Amortization of tangible capital assets	262	429
Professional fees	950	1,081
Premises	871	1,174
	32,530	**30,465**
Excess of revenues over expenditures for the year	829	864
General fund – beginning of year	6,692	5,714
Remeasurement of post-employment benefits	125	114
General fund – end of year	**7,646**	**6,692**

Statement of Cash Flows

For the year ended March 31, 2023
(in thousands of dollars)

CASH PROVIDED BY (USED IN) OPERATING ACTIVITIES	2023	2022
Excess of revenues over expenditures for the year	$	$
Items not affecting cash	829	864
Post-employment benefits		
Amortization of deferred capital grant	91	89
Amortization of tangible capital assets	(262)	(429)
Investment interest	262	429
Changes in non-cash working capital balances	(27)	(57)
	(1,558)	(486)
	(665)	**410**
INVESTING ACTIVITIES		
Maturity of Investments	2,374	–
Purchase of tangible capital assets	(180)	–
	2,194	
FINANCING ACTIVITIES		
Contribution to deferred capital grants	180	-
Increase in cash during the year	1,709	410
Cash – beginning of year	**10,972**	10,562
Cash – end of year	**12,681**	**10,972**

Acknowledgements

We would like to thank our core funders, the Ontario Ministry of Health and Ontario SPOR Support Unit, for their ongoing support in providing actionable and timely evidence that fosters health equity and improves health outcomes for all. We would also like to extend our gratitude to our federal and provincial partners and stakeholders, for the opportunity to collaborate and expand the scope and impact of our research and analytics. Thank you to: Canadian Institute for Health Information, Canadian Institutes of Health Research, Health Canada, Public Health Agency of Canada, Public Health Ontario, Métis Nation of Ontario, and the Chiefs of Ontario.

We also recognize our Indigenous partners, who have helped us to develop unique partnerships that include data governance and data sharing agreements: the Métis Nation of Ontario, First Nations organizations and communities, the Kenora Chiefs Advisory, Grand Council Treaty #3, Aboriginal Health Centres, and the Chiefs of Ontario.

Finally, we could not do the work we do without the creativity and dedication of our staff and scientists, whose work translates data into trusted evidence that makes Ontarians healthier, improves healthcare delivery, guides policy decision-making and reduces barriers to data. Thank you to our entire ICES community.

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