


Evidence with Impact

A selection of recent projects that illustrate the combination of ideas, insight and rigour driving ICES research

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01. The impact of accurate and timely COVID-19 data on healthcare decision-making
 02. Safety data informs policy change on abortion access
 03. The impact of the COVID-19 pandemic on eating disorders in adolescents
 04. Regulatory amendments expand pharmacists' scope of practice
 05. Supporting the next generation of Métis health researchers in Ontario

The impact of accurate and timely COVID-19 data on healthcare decision-making

BACKGROUND

Entering the second year of the pandemic in 2021, ICES scientists and staff continued to provide near-real-time data on COVID-19, shifting from reporting on testing and infection rates to vaccination rates by setting, geography, and populations at high risk. Reports developed by ICES (in collaboration with

the Ministry of Health, Ontario Health, Public Health Ontario, provincial public health units, and other partners) ensured that decision-makers and the public had accurate and timely data to support decision-making and contributed to an effective response to subsequent waves of the pandemic.



ICES RESEARCH HIGHLIGHTS

AREAS OF IMPACT



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ICES research led by Dr. Jeff Kwong, Hannah Chung and colleagues contributed to emerging international evidence on vaccine effectiveness. As third and fourth doses became available, ICES scientists used linked provincial COVID-19 laboratory testing, vaccination, and health administrative databases to estimate the effectiveness of these doses compared to unvaccinated groups. These studies included outcomes on older residents in [long-term care](#), people who are [immunocompromised](#), [adolescents](#), and the [general population](#).

COVID-19 vaccination data were linked to multiple healthcare and demographic datasets to determine vaccine uptake across different populations and by neighbourhood. Early reporting of vaccine uptake by neighbourhood risk on the ICES dashboard showed that there needed to be a more concerted effort to reach neighbourhoods with the highest transmission. Following these reports, the government announced higher per capita vaccine supply to high-risk neighbourhoods. Specific reports on immigrants and refugees led to local public health units initiating activities to better understand and address vaccine hesitancy in these communities.

Feedback provided to us from 11 Public Health Units indicated that ICES vaccine coverage reporting help to guide the location of mobile vaccination units, strengthen partnerships and dialogue with social service and immigrant/refugee service organizations, target specific populations in need (e.g. pregnant women, people with developmental disabilities, those with high-risk medical conditions and those experiencing homelessness), and, more generally, inform clinical and public health efforts across the province to improve vaccination coverage for high-risk populations.

ICES has also worked to support First Nations communities and leadership, Métis leadership, Inuit health service providers, and Indigenous organizations serving Indigenous people living in cities and related homelands in responding to the COVID-19 pandemic.



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HOW THIS WORK IS HAVING AN IMPACT

- In 2021/22, ICES scientists published 61 studies about COVID-19.
- The ICES COVID-19 dashboard was visited 131,036 times from April 1, 2021 to March 31, 2022.
- There were over 40 Knowledge User organizations (KUs), including government ministries and public health units, that received routine COVID-19-related Applied Health Research Questions (AHRQ) reports, which informed health system decision-making and locally driven initiatives to improve access to care and vaccinations.
- There have been over 30 (KU-driven) AHRQ projects and over 150 investigator-initiated projects related to COVID-19 since March 1, 2020.
- Based on vaccination data in immigrant and refugee communities, the City of Toronto held two Eastern European Vaccine Engagement Focus Groups in November 2021. These groups helped to develop a detailed account of the experiences and approaches needed to engage Eastern European community members, who have some of the lowest vaccination rates in Toronto.

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The support under the AHRQ has been invaluable in the rapidly evolving and resource-demanding context of COVID-19. The demand for information during the COVID-19 pandemic has been unprecedented and the AHRQ has gone a long way to supporting our obligations under the Ontario Public Health Standards.

Ottawa Public Health



Safety data informs policy change on abortion access

BACKGROUND

One in three females in Canada will have an abortion in their lifetime. Prior to 2017, 96% of abortions in Canada were surgeries, usually performed in abortion-specific clinics in Canada's largest cities. Abortion access was limited and inequitable, particularly for rural and remote populations.

In 2017, Canadian health policymakers implemented a globally unique policy, making the medical abortion drug mifepristone available as a normal prescription. Mifepristone is on the World Health Organization's essential medicines

list and has been used globally for medical abortion for decades. However, in many nations where the drug is available, specific drug regulatory policies limit its use, including direct prescriber dispensing and observed ingestion. Mifepristone first became available in Canada in January 2017. By November 2017, all restrictions limiting mifepristone use in Canada were removed. This yielded an unprecedented abortion policy in which any physician or nurse practitioner could prescribe mifepristone, any pharmacist could dispense it, and patients could swallow the pills if, where, and when they chose.

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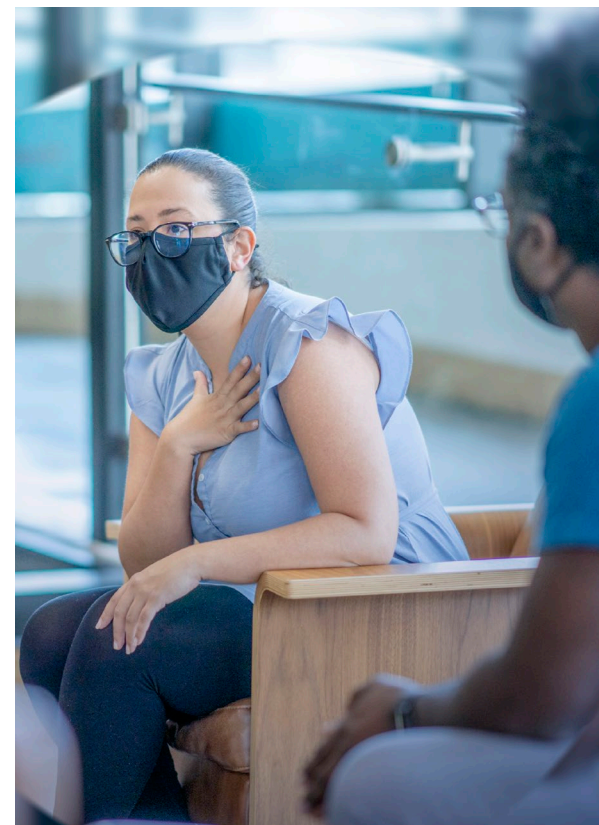
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In a January 2022 study, ICES fellow Dr. Laura Schummers and ICES scientist Dr. Liz Darling examined the impact of Canada's unique regulatory approach to medication abortion on abortion safety and use. The research looked at the outcomes of the nearly 280,000 abortions in Ontario that occurred between January 2012 and March 2020. [The study found](#) that with the rapid uptake of prescribed mifepristone, abortion remained safe, with no change in abortion complications or adverse events.

As part of a research program led by Dr. Wendy Norman at the University of British Columbia, the team at ICES is also conducting ongoing related analyses to understand the impact of Canada's unique mifepristone policy on access to abortion services and health system costs of abortion services. These analyses demonstrate that the policy change has been associated with a dramatic increase in the number of abortion providers and improved access to abortion in rural areas.

HOW THIS WORK IS HAVING AN IMPACT

- Published in the *New England Journal of Medicine*, these essential safety data put Canada's abortion policy leadership in the global spotlight.
- This article received over 10,000 page views within one month of publication and widespread attention in traditional and social media.
- The research team met directly with Health Canada to share the research findings.
- A written brief to the US Food and Drug Administration resulted in removal of some mifepristone restrictions in the USA, indicating the importance of these safety findings in this contested policy space.
- The research findings have been presented internationally, including at the 16th Congress of the European Society of Contraception and Reproductive Health (Belgium) and the 50th Annual Scientific Meeting of the Society of Academic Primary Care (UK).
- Findings about the impact of the policy on the family physician workforce and in rural areas have been presented at the conjoint 27th WONCA Europe Conference and RCGP Annual Conference (UK).



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The impact of the COVID-19 pandemic on eating disorders in adolescents

BACKGROUND

Eating disorders began making headlines in the summer of 2020, with reports of a global surge in presentations amongst children and adolescents during the COVID-19 pandemic. Research has theorized reasons for this surge and factors contributing to the increased risk including isolation, increased time on social media, extended time spent with family, decreased access to care, and possible fear of COVID-19 infection.

For many, disordered eating patterns may be a maladaptive coping strategy. Two years following the onset of the pandemic, the impact on youth mental health is significant and ongoing as healthcare providers try to navigate rapidly changing public health guidelines, alarmist news headlines, and virus mutations.

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ICES' work on acute care visits, led by fellow Alène Toulany, has demonstrated a significant and persistent increase in rates of visits for pediatric eating disorders in Ontario, Canada after the onset of COVID-19 pandemic. In a [previously published study](#) of almost 2.5 million children and adolescents, the team demonstrated a 66% and 37% increase in the emergency department visit and hospitalization for pediatric eating disorders in Ontario, respectively. This study has important implications for ongoing surveillance as the pandemic evolves and will inform resource allocation for pediatric eating disorders.

There is a lack of information, however, on eating disorder presentations in older populations. It is not clear whether the pandemic is having a similar impact on adults. Building on previous work, Dr. Toulany and colleagues are currently addressing the gaps in the literature by examining and comparing patterns of acute care utilization for eating disorders during the pandemic across both adolescent and adult age groups.

HOW THIS WORK IS HAVING AN IMPACT

- ICES scientists with the Mental Health and Addictions research program have published Ontario data on the impact of COVID-19 on acute eating disorder presentations in adolescents.
- Data on pandemic-related acute care utilization for eating disorders across the lifespan is being shared regularly with Ontario Health's Mental Health and Addictions Centre of Excellence and the Ontario Ministry of Health.
- ICES data was used in advocacy efforts to secure additional [funding and support](#) for eating disorders during the pandemic.
- Eating disorders have been made a priority focus area for pandemic recovery planning by the Ontario Ministry of Health.



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Regulatory amendments expand pharmacists' scope of practice

BACKGROUND

Emergency departments (ED) in Ontario continue to be overstretched and are struggling to meet the needs of Ontario's patients. One issue that may be contributing to overcrowding is the number of minor complaints, often called "minor ailments," that present to the ED. Minor ailments are described as conditions that may resolve on their own or that are frequently managed with proper advice and over-the-counter medications.

As part of an overall approach to increasing capacity in the healthcare system and alleviating strain on urgent care, in 2019 the Ministry of Health directed the College of Pharmacists to draft regulations that

would authorize pharmacists to prescribe medications for certain minor ailments. The process that selected what would be considered a "minor ailment" relied on healthcare data to inform the regulation submission on current healthcare needs and demands.

The proposed regulatory amendments to authorize Ontario pharmacists, students, and interns to prescribe medications for specific minor ailments have been approved and will come into effect on January 1, 2023. The list of eligible minor ailments was developed by the College's Minor Ailments Advisory Group (MAAG) and submitted to the government.

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In 2019, researchers at ICES, including MAAG members Drs. Mina Tadrous, Kevin Schwartz and Noah Ivers, identified the number of Ontario ED visits for minor ailments each year from 2014 to 2019. This study was undertaken in collaboration with the Ontario College of Pharmacists (OCP) through the ICES Applied Health Research Question (AHRQ) funding program. Prevalent minor ailments included urinary tract infections, insect bites, heartburn, minor allergic reactions, muscle sprains and strains, and minor skin conditions (such as rashes).

The research was used by the OCP and MAAG to help build a strong, evidence-based foundation for deciding which minor ailment conditions to include in the regulations. In previous studies, some conditions, such as urinary tract infections (UTI) were not included and therefore did not emerge as a priority. However, evidence from other provinces has demonstrated the benefits of pharmacist prescribing for UTIs. Obtaining information on conditions that result in ED visits, that could be safely managed by pharmacists, helped ground the policy in current and emerging healthcare needs and maximize the benefits to patients and the broader health system.

HOW THIS WORK IS HAVING AN IMPACT

- The minor ailments list comprises 13 eligible ailments that are covered under the new regulatory amendment, expanding pharmacists' scope of practice. The data produced through this AHRQ directly informed the selection of the minor ailments that would best help support the healthcare system.
- OCP and key partners are currently developing new practice guidance and resources to share by the end of 2022. This will help support the pharmacist profession when the amendments come into effect in January 2023.
- The regulatory amendments expand pharmacists' scope of practice while satisfying both professional and ethical responsibilities for the delivery of safe patient care.



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Supporting the next generation of Métis health researchers in Ontario

BACKGROUND

ICES is committed to building capacity through supporting First Nations, Inuit and Métis students and community members to gain skills and understanding of what data is available and how it can be used to support health and wellness.

Since 2009, the Métis Nation of Ontario (MNO) and ICES have partnered to develop and produce Métis-specific healthcare research under MNO governance. These have included reports and articles on a wide range of health and wellness conditions, as well as health service use by Métis Citizens. ICES CEO, Dr. Michael

Schull, has noted that “the success of this work is a practical example of how ICES is supporting a key partner to promote health in the Métis community, and advance Indigenous Data Sovereignty more generally.” MNO Chief Operating Officer, Joanne Meyer states that “the access to data on the health and wellbeing of MNO Citizens, that partnering with ICES offers, is so important for informing our programs and services. And working with students expands the number of data projects we can accomplish together.”

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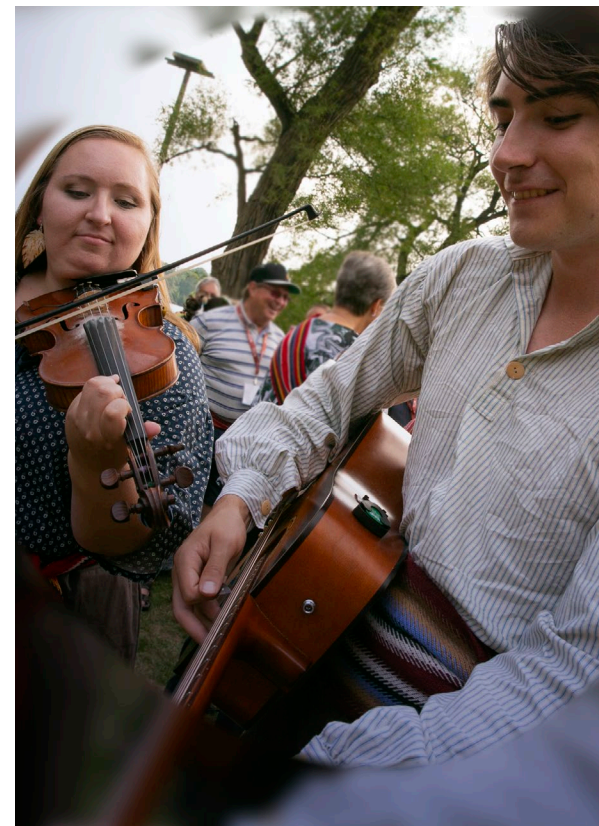


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As an important next step in this partnership, the MNO and ICES are training the next generation of Métis health researchers in Ontario through joint graduate student practicum placements, where students can develop 'hands on' experience and apply theories and analytical skills acquired in the academic portion of the degree. One of MNO's key objectives is to encourage academic and skills development and enable Citizens of the Métis Nation to attain their educational aspirations.

In 2020 two inaugural student placements for this program took place, where the students (Abigail Simms and Noel Tsui) examined COVID-19 vaccine hesitancy among MNO Citizens. Noel's work used survey data collected by the MNO and shared with ICES for analysis and was linked with other health administrative data. Working together, the data demonstrated that a majority (71%) of MNO Citizens planned to be vaccinated as COVID-19 vaccines rolled out in Ontario.

Abby's complimentary work analyzed 16 in-depth interviews with Métis Citizens in Ontario who planned, were unsure, or didn't plan to be vaccinated with a COVID-19 vaccine. Their work was used throughout 2021 and early 2022 to inform Métis-specific COVID-19 related public health messaging. Additionally, linkage to the Ontario COVID-19 vaccine database through the ICES partnership has helped monitor the success of MNO's health promotion activities on COVID-19 vaccine uptake by MNO Citizens.



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HOW THIS WORK IS HAVING AN IMPACT

- The findings from the student practicums have been shared with the Métis community through presentations at the Annual General Assembly, columns in the Métis Voyageur, and in a community report.
- These findings also supported the MNO's health promotion messaging throughout the COVID-19 vaccine rollout in 2021 and early 2022.
- With the added capacity from practicum students to execute these research projects, the MNO was able to focus on new MNO-driven research proposals resulting in two successful CIHR grants.
- Based on this successful partnership, the MNO plans to fund two more full-time ICES positions seconded to the MNO and continue to work to attract graduate students to their MNO-ICES practicum placements.

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The opportunity to work with both MNO and ICES on Métis health research projects has been so important to my development as a scholar. It is extremely satisfying to work on projects relevant to the health and wellbeing of your family and community.

Abigail Simms
(a Citizen of the Métis
Nation of Ontario)