



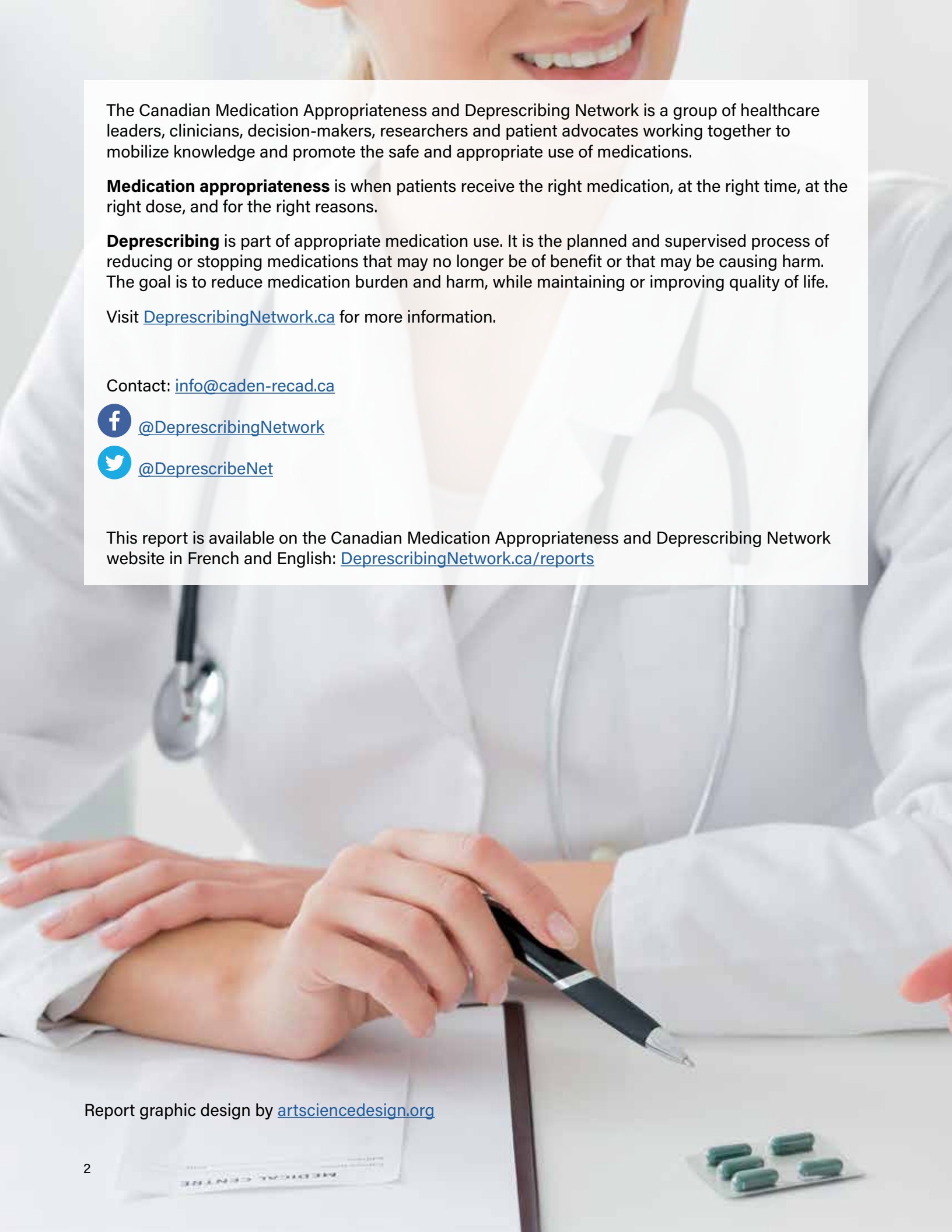
Canadian Medication  
Appropriateness and  
Deprescribing Network

# 2022

## Annual Report

Research-  
Driven Policies  
for Medication  
Appropriateness





The Canadian Medication Appropriateness and Deprescribing Network is a group of healthcare leaders, clinicians, decision-makers, researchers and patient advocates working together to mobilize knowledge and promote the safe and appropriate use of medications.

**Medication appropriateness** is when patients receive the right medication, at the right time, at the right dose, and for the right reasons.

**Deprescribing** is part of appropriate medication use. It is the planned and supervised process of reducing or stopping medications that may no longer be of benefit or that may be causing harm. The goal is to reduce medication burden and harm, while maintaining or improving quality of life.

Visit [DeprescribingNetwork.ca](https://DeprescribingNetwork.ca) for more information.

Contact: [info@caden-recad.ca](mailto:info@caden-recad.ca)



[@DeprescribingNetwork](https://www.facebook.com/DeprescribingNetwork)



[@DeprescribeNet](https://twitter.com/DeprescribeNet)

This report is available on the Canadian Medication Appropriateness and Deprescribing Network website in French and English: [DeprescribingNetwork.ca/reports](https://DeprescribingNetwork.ca/reports)

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**Dr Jim Silvius,  
Executive Director**



**Dr Emily McDonald,  
Scientific Director**  
 [@DrEmilyMcD](https://twitter.com/DrEmilyMcD)

## Letter from the Executive Director & Scientific Director

In 2022, members of the Canadian Medication Appropriateness and Deprescribing Network (CADeN) continued our efforts towards making medication use safer for all Canadians. Our Network saw renewed and invigorated collaborations between health policy makers, clinicians, members of the public, community organizations, and researchers.

Some areas of appropriate use of medication were particularly challenging this year. As individuals and families dealt with the ongoing effects of the pandemic, an increasing demand for mental health services was observed. This was reflected in recent data reports from the Canadian Institute for Health Information (CIHI)<sup>1,2</sup> and IQVIA<sup>3</sup>. Both organizations noted an increase in prescription claims for psychotropic medications in community and facility care settings, such as antidepressants and antipsychotics without a diagnosis of psychosis. This trend was concerning to our membership, as overuse of medications, including psychotropic drugs, can lead to serious consequences for older adults, such as falls, emergency room visits, hospitalizations, loss of independence, and institutionalization<sup>4</sup>. This places undue burden on patients, healthcare workers, the entire healthcare sector, and creates excess demands for personnel and financial resources that can't always be met.

While the increase in prescribing of some psychotropic medications was worrisome, other trends were more encouraging! The same CIHI reports also found a decrease in the use of sleeping pills and opioids in the older adult population across the country. This may be a sign of success of some of the interventions put in place by various organizations to raise awareness of the risks of these medications over the years. Albeit encouraging, ongoing efforts are still needed to increase access to safer non-pharmacological treatments, such as cognitive behavioral therapy for insomnia, physiotherapy, exercise therapy or self-management strategies for chronic pain.

To respond to the ever-present crisis of polypharmacy and overprescribing, we continued to raise awareness about our **6-Step National Strategy for Appropriate Medication Use in Canada**, featured on page 9. Throughout the year we have been meeting with partners and jurisdictions to discuss the Strategy, including our country's strengths, gaps, and areas of opportunity for safer prescribing. All the while, Network members continued to develop, test, and implement agile medication appropriateness interventions, programs, and policies inspired by the different steps of the Strategy.

**Continues on next page →**

**This annual report highlights exactly how we informed research-driven policy by applying the National Strategy:**

- By partnering with community groups representing diverse communities across the country to share a relevant and evocative message about medication safety. (p. 10-15)
- By providing evidence-based tools and information to current and future health care professionals, to help them prescribe medications appropriately and support informed decision-making. (p. 16-18)
- By leveraging the power of technology to help prevent adverse drug events. (p. 20-21)
- By sharing research findings with decision makers and supporting the implementation of large-scale interventions. (p. 22-24)
- By linking up with other international deprescribing networks to participate in the very first International Conference on Deprescribing. (p. 27)

At the end of 2021, we said goodbye to our Scientific Director, Justin Turner, who has returned to Australia after a number of successful years with the Network, and welcomed a new Scientific Director, Emily McDonald. Emily has been busy building a research network to support medication appropriateness and deprescribing which will only strengthen CADeN as we move forward.

Finally, in September 2022 we unveiled our new name and logo. The Canadian Medication Appropriateness and Deprescribing Network (CADeN) has been rebranded to acknowledge that medication appropriateness, of which deprescribing is a component, needs to be the focus in the coming years.

We hope this report demonstrates just how committed we are as a Network to filling critical knowledge gaps, creating important national partnerships, and implementing effective strategies to support the medication appropriateness dossier for a potential future Canada Drug Agency. We sincerely thank all Network members for their tireless efforts, and invite you to contact us if you too would like to be part of this important initiative.

We look forward to continuing this work together,



Dr Jim Silvius, BA (Oxon), MD, FRCPC  
Executive Director



Dr Emily McDonald, MD, MSc, FRCPC  
Scientific Director

**References**

1. CIHI. [Drug use among seniors in Canada](#). 2022.
2. CIHI. [Overuse of tests and treatments in Canada](#). 2022.
3. IQVIA. Medication Treatments for Mental Health Disorders in Canada (2019-2021). 2022.
4. Halli-Tierney AD, Scarbrough C, Carroll D. [Polypharmacy: Evaluating Risks and Deprescribing](#). Am Fam Physician. 2019;100(1):32-38.

# Drugs Claimed by Older Adults in Canada: Highlights and Trends

Recent reports published by the Canadian Institute for Health Information (CIHI)<sup>1,2</sup> and IQVIA<sup>3</sup> provide insight on drug claim trends across the country. Although trends in medication claims only show part of the story, this information remains useful to help identify areas of gain, and where more efforts are needed.

## An overall look



**3 out of 5 older adults** (62%) are prescribed 5 or more drug classes



**2 out of 5 older adults** (44%) have a claim for at least one potentially inappropriate medication



**1 out of 4 older adults** (24%) is prescribed 10 or more drug classes



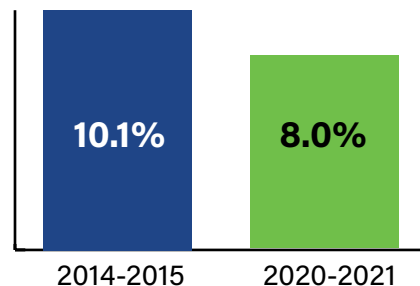
On average, women, people who are older or who live in lower-income neighborhoods are prescribed more medications

## Sleeping pills

**Fewer older adults had claims for sleeping pills in 2020-2021 than in 2014-2015 (Figure on right).**

Sleeping pills include benzodiazepines and other sedative-hypnotic medications. They are recognized as potentially inappropriate medications for older adults as they carry minimal benefit and increase the risk of falls, fractures, memory problems and motor vehicle accidents<sup>4</sup>.

**Proportion of older adults who are chronic users of benzodiazepines & other sedative-hypnotics**



## Champion province

Saskatchewan had the lowest proportion of sleeping pills prescribed to older adults, with 5.4% chronic users in 2020-2021! As shown above, the national average was 8.0%.

### References

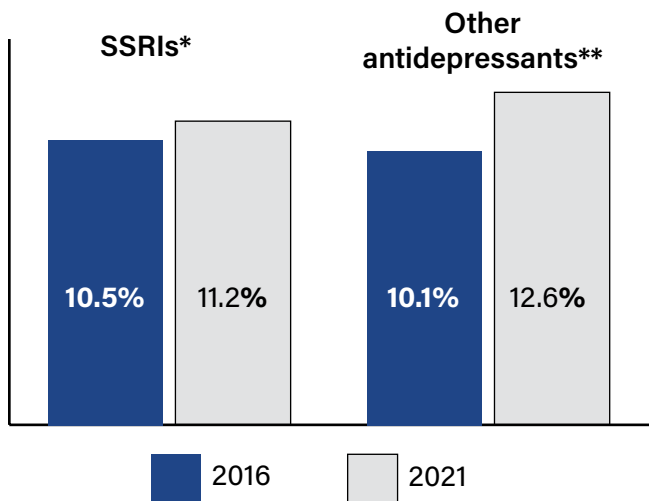
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2. CIHI. [Overuse of tests and treatments in Canada](#). 2022.
3. IQVIA. Medication Treatments for Mental Health Disorders in Canada (2019-2021). 2022.
4. (2019), [American Geriatrics Society 2019 Updated AGS Beers Criteria® for Potentially Inappropriate Medication Use in Older Adults](#). J Am Geriatr Soc, 67: 674-694.

# Drugs Claimed by Older Adults in Canada: Highlights and Trends

## Antidepressants

The COVID-19 pandemic has taken a toll on the mental health of older Canadians and was associated with increased prescribing of different medications for mental health.

Proportion of older adults with a claim for an antidepressant



\*SSRIs : selective serotonin reuptake inhibitors

\*\*Anatomical Therapeutic Chemical (ATC) code N06AX, which includes venlafaxine, desvenlafaxine, duloxetine, vortioxetine, mirtazapine, bupropion, etc.



140,000+

older adults have been prescribed an antidepressant since the beginning of the COVID-19 pandemic.

In most cases, antidepressants are not intended to be “life-long treatments” and should be reassessed over time for benefit and/or be deprescribed as the condition improves.

## Opioids

Much attention has been devoted to the opioid crisis over the past decade, leading to increased awareness of the risks of these medications and the implementation of health policies to limit their use. This may explain the observed downward trend in use.



32,000 fewer

older adults were prescribed opioids since 2017

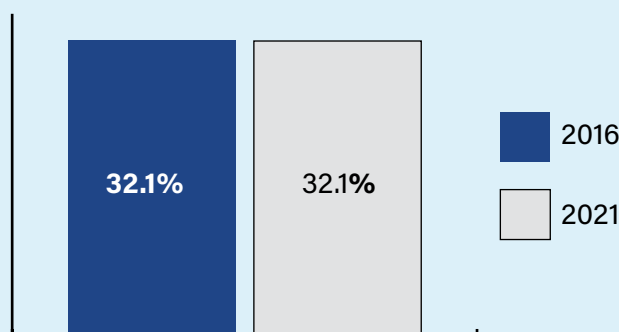
# Drugs Claimed by Older Adults in Canada: Highlights and Trends

## Proton pump inhibitors

Proton pump inhibitors (PPIs) are the second most common drug class claimed by older adults after statins (cholesterol-lowering medications). Research shows that as many as 40% of people taking a PPI do not have a documented indication for long-term therapy<sup>1</sup>. Overuse of PPIs contributes to medication burden, resource waste, and adverse drug events such as *C. difficile* diarrhea and electrolyte disorders.

Over the past 5 years, the use of PPIs has not declined in Canada. Moving forward, new approaches should be considered to promote optimal use.

Proportion of older adults with a claim for a proton pump inhibitor



**\$260 million**

Public drug program spending on PPIs in 2021



PPIs were the 14th most expensive drug class in 2021<sup>2</sup>



## Champion province

British Columbia had - by far - the lowest rate of use of PPIs in 2021, with 12.8% of older adults with a claim for this drug class. The national average was 32.1%.

Specific criteria around coverage of these medications by the province's drug program may partly explain this lower rate.

### References

1. Farrell B, Lass E, Moayyedi P, Ward D, Thompson W. [Reduce unnecessary use of proton pump inhibitors](#) BMJ 2022; 379 :e069211
2. CIHI. [Prescribed drug spending in Canada](#) [product release]. 2022



# Achieving Research-Driven Policy for Medication Appropriateness

To achieve research-driven policy for medication appropriateness, in 2021 we proposed a **6-Step National Strategy for Appropriate Medication Use**. The Strategy is based on an iterative cycle where interventions are developed, implemented, and evaluated. Interventions need to be agile, scalable and adapted to the needs of the jurisdictions.

Throughout 2022, we have been meeting with various partners and jurisdictions across the country to discuss and seek input on the Strategy. This has allowed us to identify many of the resources in Canada which would support safer prescribing or be required to fill the gaps. There has also been considerable agreement that such a Strategy would be foundational in the implementation of a Canada Drug Agency which promotes appropriateness, as much as access and affordability.

## A 6-Step National Strategy for Appropriate Medication Use





# Public Awareness

## Raising Awareness in Pandemic Times

Collaborating with the public to raise awareness of the potential harms of inappropriate medication use has been central to our activities from the beginning. This year, our members continued to spread the word amidst the restrictions imposed by the COVID-19 pandemic, which strongly affected and isolated older adults. The second half of the year allowed for some in-person events to start happening. In other words, it wasn't easy but we got the word out! Here are a few highlights of a pandemic year of engagement.

### Deprescribing resources featured in United Way Halton & Hamilton Older Adults Resource Guide

With the help of Suzanne Clancy, Public Awareness Committee member and president of the Ontario Federation of Union Retirees, deprescribing resources were included in a resource booklet distributed across the Halton and Hamilton region. The [United Way Halton & Hamilton Caring for Community During COVID-19 booklet](#) aimed to support older adults and their caregivers by providing access to information on useful programs and services. Thousands of copies were distributed in the region. Network Assistant Director Camille Gagnon participated in a [live panel](#) sharing highlights from the booklet.



The United Way Halton & Hamilton Caring for Community During COVID-19 Older Adult Resource Guide

## Prince Edward Island Holds Provincial Medication Safety Summit

In early November, Age Friendly PEI Inc, along with representatives from the Department of Health & Wellness, the Seniors' Secretariat, and others, organized a medication safety and deprescribing awareness event for older adults across Prince Edward Island (PEI). Hosted in person and streamed online, the event welcomed participants from all over the province, including members of the Abegweit and Lennox Island Indigenous communities. Speakers included local healthcare leaders who shared their experience working with patients to deprescribe, with breakout sessions held in English and French. Network Executive Member Dr David Gardner offered a presentation on the [Sleepwell program](#), which promotes safe alternatives to sleeping pills. Members of the community discussed their deprescribing journeys and how it impacted their overall health. Audience members received a portfolio of medication safety resources and were invited to bring back this useful information to other members of their community.



*Top : Dr Martha Carmichael, geriatrician and medication safety advocate, spoke to older adults across PEI.*

*Bottom : Participants of the PEI Medication Safety Summit*





## Promoting Safe Medication Use for Brain Health

Maintaining a healthy brain is a priority for older adults. This year again, members of the Network collaborated with different organizations to promote safe medication use as a way to help preserve brain function and prevent harmful effects of medications, such as falls and loss of independence. This was possible through partnerships with groups who share information with members of the public living with dementia, their care partners, healthcare providers and health administrators.

- Medication safety champion and pharmacist member Shirin Jetha offered a presentation called [Ills & Pills: Memory & Medications](#) to more than 300 participants as part of a Health & Wellness series offered by the Ismaili community.
- Network member Dr Shanna Trenaman provided a webinar on deprescribing for the [brainXchange](#), a network dedicated to improving quality of life and support for people living with dementia or who are at risk of brain-health needs related to dementia, mental health and age-related neurological conditions or have experienced brain health changes earlier in life that are now more complex with aging. 115 participants attended. [Watch the webinar here.](#)
- Network Assistant Director Camille Gagnon offered a webinar as part of the [Alzheimer Society of Manitoba Family Education series.](#)

## Manitoba champion raises awareness across the province

Connie Newman, Public Awareness Committee Member and President of the [Manitoba Association of Senior Communities](#), spent the fall 2022 season on the road attending 7 different events targeting seniors across the province. During these events, she proudly showcased and distributed hundreds of medication safety handouts to participants, inviting them to initiate a conversation on their medications with their healthcare providers.



Photo by Kelly Goodman, Senior Scope



Photo by Kelly Goodman, Senior Scope

*Connie Newman, Public Awareness Committee member and medication safety champion*

## A Focus on Inclusivity & Diversity

In line with our commitment to foster diversity, equity, and inclusion within our Network and with external stakeholders, we are proud to have built new partnerships with cultural communities across Canada in 2022. These partnerships allowed us to develop and share relevant information on medication safety and deprescribing with Canadians of diverse communities. Incorporating the experiences and perspectives of underrepresented groups is vital to all aspects of this work, including research and policy. This section of the report presents organizations that made medication safety a priority for their members in 2022, and how we worked together. We look forward to strengthening existing relationships in 2023, and building new ones with groups across the country!

### The Winnipeg Chinese Senior Association (WCSA)

#### About the WCSA

The [WCSA](#) is a Winnipeg-based non-profit organization that aims to spread public health knowledge and promote the well-being of Chinese communities. WCSA supports Chinese members through organizing health seminars and senior-suitable exercises and activities.

#### Our partnership

As a part of the WCSA “Learning Your Health Series”, Winnipeg-based pharmacist Dinghua Liang delivered a presentation on medication safety to Winnipeg seniors in English and Mandarin. Additionally, Mr Liang helped translate a [medication safety handout to Simplified Chinese](#), which is now available on the Network website.

### The Calgary Chinese Elderly Citizens' Association (CCECA)



The Calgary Chinese Elderly Citizens' Association  
卡城華人耆英會

#### About the CCECA

The [CCECA](#) is a non-profit social service organization in Calgary. Since 1985, the CCECA has been serving Chinese older adults citywide by providing a wide variety of services and programs including social services, community support and health services to over 2,000 members.

#### Our partnership

This new partnership with the CCECA is a significant opportunity to share medication safety information, either through the dissemination of resources adapted to Simplified Chinese or by organizing engaging educational sessions.



Left: Poster of WCSA “Learning Your Health Series” on medication safety

Right: Medication safety handout in Simplified Chinese

## The interCultural Online health Network (iCON)

### *About iCON*

Led by the University of British Columbia's Digital Emergency Medicine Unit, [iCON](#) is a community-based health promotion initiative that empowers multicultural patients and families with the skills and knowledge to better manage chronic diseases, navigate primary care and use digital tools to support their health. iCON is proudly supported by the B.C. Ministry of Health Patients as Partners initiative.

### *Our partnership*

We are working together on developing resources that best support Chinese-speaking members of iCON. iCON's multicultural networks and focus on health promotion will help the Network expand its reach into more diverse and inclusive communities.

## The Council for Black Aging Community of Montreal (CBAC)

### *About the CBAC*

The [CBAC](#) is a charitable, non-profit corporation founded in 1987 to address specific needs of Montreal's Black native-born and West Indian/Caribbean Anglophone seniors and to advocate on their behalf. The CBAC is the largest English-speaking seniors' organization in Quebec.

### *Our partnership*

In the fall, the CBAC hosted a presentation on medication safety offered by the Network's Assistant Director, Camille Gagnon. Useful resources were shared with CBAC members, both at the head office and virtually.



*The iCON Team*



*The CBAC Team*

## Africa Centre

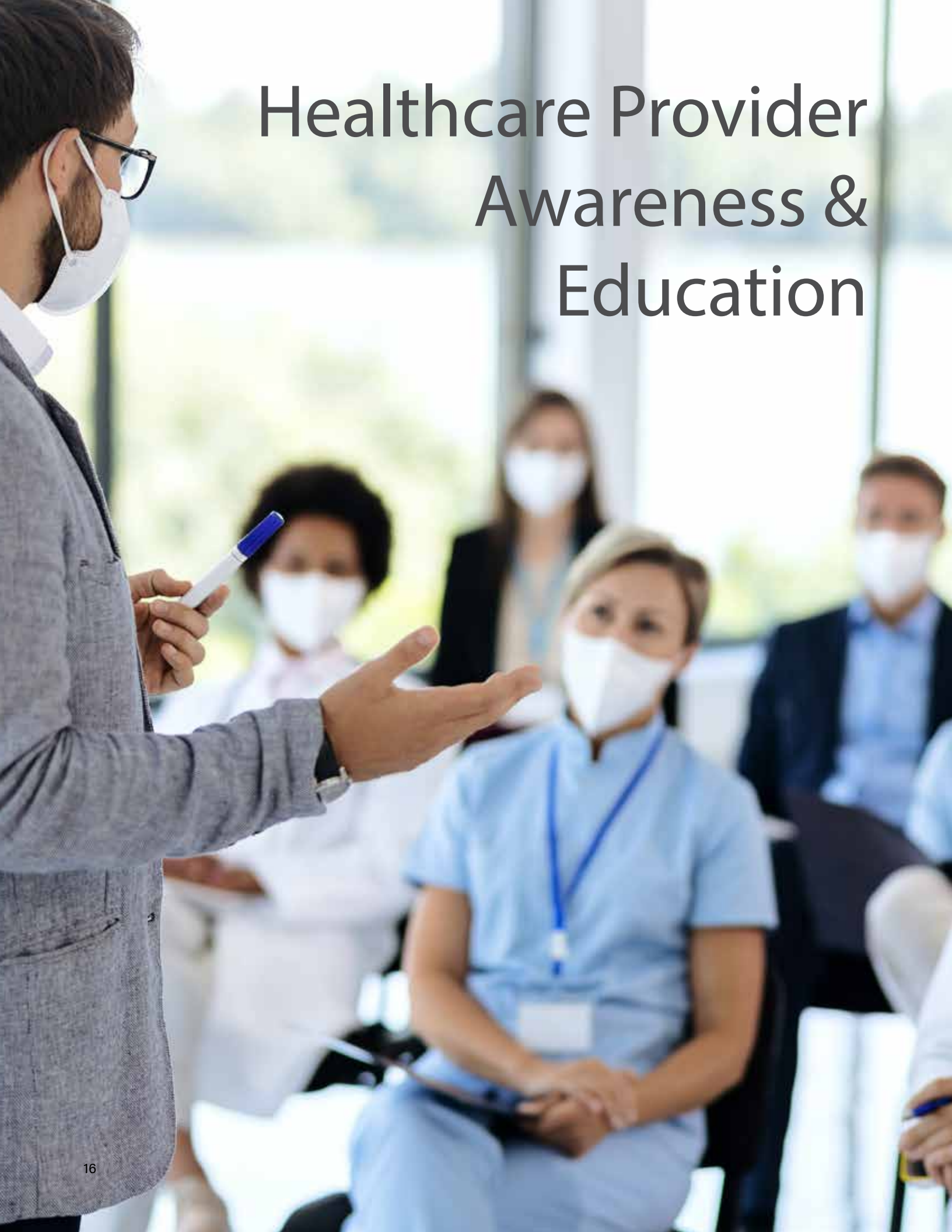
### *About Africa Centre*

The [Council for Advancement of African Canadians in Alberta \(CAAC\)](#) is operating as Africa Centre and is located in Edmonton. One of Africa Centre's missions is empowering older adults and expanding their overall health knowledge and understanding.

### *Our partnership*

This partnership will lead to organizing introductory workshops and disseminating online resources on medication safety.

# Healthcare Provider Awareness & Education





One of the goals of the Network is to equip and train health professionals to use medications safely. To overcome knowledge and confidence gaps, members of the Network are committed to developing creative educational content that increase practicing and future health providers' capacity in safe prescribing, including deprescribing.

## Leading in education: Healthcare Provider Committee prepares first educational framework for deprescribing

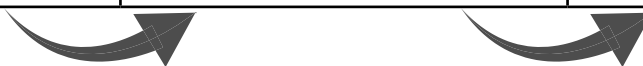
Led by Co-Chairs Dr Barb Farrell, Dr Lalitha Raman-Wilms and Member Dr Cheryl Sadowski, the Network's Healthcare Providers Committee started an ambitious project in 2019: building the first framework for deprescribing education for Medicine, Pharmacy and Nursing. The committee met for 2 years discussing essential competencies for deprescribing. The initial literature search produced many articles about deprescribing; however, a framework for how all of this complex content could be taught had never previously been created. Using frameworks for prescribing, the committee began to assemble similar competencies for deprescribing. The framework includes 7 competencies that are relevant for all targeted professions, and structured to include skills and knowledge, along with guidance for what could be taught earlier vs later in a program. Examples for teaching and assessment are also included.

*These examples from the educational framework show how learning outcomes and activities could evolve with learner level*

Examples of learning outcomes		
Introductory/early learner	Mid-level learner	Advanced learner
List tools used to identify potentially inappropriate medications	Apply tools to identify potentially inappropriate medications	Critique tools used to identify potentially inappropriate medications and to deprescribe medications



Examples of teaching & learning activities		
Introductory/early learner	Mid-level learner	Advanced learner
Document medication-related problems	Think-pair-share to identify priorities for deprescribing	Using interactive cases, ask learner to identify critical pieces of information related to polypharmacy and deprescribing



### What now?

The authors have presented aspects of the framework at various educational meetings in 2022, and a publication has been accepted for publication. In 2023, we will be distributing more details about the framework to all Medicine, Pharmacy and Nursing programs across Canada.

### Making it Happen: Online Deprescribing Education Program for healthcare professionals and students

The Optimizing Therapy Through Collaboration (OPTx) research team in Nova Scotia, led by Dr Jennifer Isenor and Dr Natalie Kenzie-Kaulbach, is currently developing an online interprofessional deprescribing education program for primary healthcare providers and healthcare professional students in the Maritimes. The program aims to support a shared understanding of deprescribing tasks and clarification of healthcare provider roles to support collaborative deprescribing in primary care practice. A multistep Scholarship of Teaching and Learning approach is being used in collaboration with content developers, patient partners, interprofessional stakeholders and the Dalhousie Centre for Learning and Teaching. Each of the five online modules in the 'Making it Happen: Deprescribing Education Program' introduces and applies a patient-centered, evidence-informed deprescribing process and includes written and audio content, patient and healthcare provider videos, a simulated patient case, self-assessment, and interactive activities. Stay tuned... the program is expected to be available by the end of 2023.

 [@OPTx\\_Team](#)

### A new continuing education module for healthcare professionals on medication optimization in geriatrics

In partnership with the Faculty of Pharmacy of the University of Montréal and the Montréal University Geriatrics Institute, the Network is developing an online educational module on medication assessment in geriatrics targeting healthcare professionals everywhere in Canada. This educational module offers seven hours of original content, including interactive activities, animations and interviews with experts and champions. The aim of this module is to help clinicians develop a structured approach to optimizing their older patient's medications, including identifying potentially inappropriate medications, deprescribing safely, and engaging with patients and caregivers throughout the process. Under the leadership of Member Louise Papillon-Ferland, Assistant Professor at the Faculty of Pharmacy of the University of Montréal, the development team received funding from the Bourse du Cercle du Doyen of the Faculty of Pharmacy and the Michel Saucier Chair in Pharmacy, Health and Aging at Université de Montréal. The module will be available in French on the [Centre FOCUS](#) platform in the winter of 2023 and in English later that year.



*Above: Animated videos present the story of Ms. Hussein, which participants follow throughout the continuing education module*

*Left: Network members Louise Papillon-Ferland and Dr Cheryl Sadowski are part of the experts interviewed in the continuing education module*



# Research

Across the country, researchers are working with patients, healthcare professionals and stakeholders to answer important questions, as well as develop, test and evaluate interventions that promote medication appropriateness. The following section presents research projects led by passionate members of the Network, in different spheres, including healthcare, technology and policy.

## ***Leveraging Technology to Promote Deprescribing & Prevent Harmful Effects***

### **MedSafer: When technology sparks deprescribing**

Developed by Dr Emily McDonald, Scientific Director of the Network, and Dr Todd Lee, Associate Professor of Medicine, McGill University, MedSafer is an electronic deprescribing decision support tool that helps guide health professionals through safe and effective deprescribing. Funded by the Canadian Institutes for Health Research, the Canadian Frailty Network, and the Centre for Aging and Brain Health Innovation, the [2022 MedSafer study](#) aimed to answer the question, “does electronic decision support increase deprescribing of potentially inappropriate medications and reduce adverse drug events within 30 days of discharge from hospital?”. The study recruited 5698 patients aged 65 years and older from across Canada who were taking 5 or more daily medications at hospital admission. This is, to date, the largest deprescribing study ever completed in acute care. Clusters of hospitals were randomized to receive individualized deprescribing report generated by MedSafer, which were provided to the treating team. The study found that the rate of deprescribing increased by more than 20% following the intervention, without any increase in adverse drug events, concluding the intervention was both safe and effective.



MedSafer is an electronic decision support tools that can be useful for clinicians and effective for deprescribing potentially inappropriate medications. Future studies using different outcomes and limited to the highest risk medications might examine

whether such tools can have an impact on adverse drug events following deprescription. In the meantime, decision support is a safe and effective intervention that can be used during a hospitalization to reduce medication burden for seniors. [For more about MedSafer](#)



### **ActionADE: Working together to prevent adverse drug events**

One in nine adult visit to the emergency room is because of an adverse drug event. One in three of those visits was because patients were put back on a medication that previously caused harm. Why does this happen? It’s an information sharing problem. Researchers at the University of British Columbia and Simon Fraser University have created ActionADE – a software that enables rapid entry and sharing of adverse drug event information from hospitals to community pharmacies. Johanna Trimble, member of the Network’s Public Awareness Committee, acts as a patient partner on this project. To date, ActionADE has been implemented in nine British Columbia hospitals, onboarded over 400 clinicians, and involved over 3500 patients. The preliminary results showed that ActionADE achieved a 10% reduction in re-dispensations of medications that previously caused harm.

[Visit the ActionADE website to learn more](#)



## Electronic decision support for clinicians and translated deprescribing brochures for residents and families in a primarily Chinese-speaking long-term care home

A mixed-methods study in Ontario evaluated the deprescribing rate of potentially inappropriate medications before and after using the MedSafer electronic deprescribing software (mentioned on page 20), compared to a control unit. Patient information regarding deprescribing was translated in Simplified Chinese and made available for residents and families in this Chinese long-term care home.

Following MedSafer-facilitated deprescribing, use of potentially inappropriate medications decreased in the long-term care home. Residents and their families had access to deprescribing information in their native Chinese language to empower them in collaborating in their healthcare plan.

[Click here to read abstract](#)



## Evaluating Large-Scale Deprescribing Interventions

### The Deprescribing in Ontario LTC Initiative

Approaches to optimize medication use in long-term care (LTC) are urgently needed. Founded in 2018, the Deprescribing in Ontario LTC Initiative is a collective of clinicians, researchers, and LTC sector partners who share the goal of integrating deprescribing as part of medication management into the culture of LTC. Led by Dr Lisa McCarthy (University of Toronto, Trillium Health Partners), Dr Barbara Farrell (University of Ottawa, Bruyère Research Institute) and Dr Wade Thompson (University of British Columbia), and in collaboration with the Ontario Centres for Learning, Research and Innovation in LTC at Bruyère, this group has developed tools and resources to support behaviours such as shared decision-making and observing for signs and symptoms of medication problems in LTC. Dr McCarthy, Dr Thompson and Dr Ilana Lega (University of Toronto, Women's College Hospital) are also leading quality improvement initiatives to reduce overtreatment of diabetes across Canada's LTC homes.

[More info & resources available for download here](#)

[Click here to read recent publication](#)

### OptimizeBP: Antihypertensive deprescribing in long-term care



OptimizeBP is an antihypertensive deprescribing randomized controlled trial in Alberta long-term care facilities led by Dr Roni Kraut. The primary outcome of the trial is time to mortality, and secondary outcomes include measures of care and cost. Deprescribing is being completed by facility pharmacists, and the Alberta Strategy for Patient-Oriented Research Support Unit is the data steward. Currently there are 7 long-term care facilities and 200 residents participating. The team expects to be at target recruitment (400 residents) by mid 2023. Preliminary results show deprescribing antihypertensives is feasible; most residents in the deprescribing group decreased their dosage of at least one antihypertensive by 50%. Final results are anticipated in 2024/2025.

[Click here for more information](#)



*Dr Lisa McCarthy (left), Dr Barb Farrell (center) and Dr Wade Thompson (right) lead the Deprescribing in Ontario LTC Initiative*

## Multi-province pharmacist-led deprescribing intervention in collaborative primary care settings

Dr Shanna Trenaman and colleagues, Dr Jenn Isenor, Dr Natalie Kennie-Kaulbach, Dr Melissa Andrew, Eden d'Entremont-MacVicar, Dr Carole Goodine, and Dr Pamela Jarrett published results of a multi-province pharmacist-led deprescribing intervention in collaborative primary care settings. The paper outlines a pilot of a framework for pharmacist-led deprescribing in collaborative primary care settings. They used pharmacists who already worked in primary care settings and supported them to provide deprescribing services to their patients. The framework was carefully considered with respect to the seven essential components of knowledge translation with hopes that it could be more easily implemented in any collaborative primary care setting with a team pharmacist. The framework was tested at three sites in two Canadian provinces.

[Click here to read paper](#)

## YAWNS NB Project: Your Answers When Needing Sleep in New Brunswick

[The Your Answers When Needing Sleep in New Brunswick \(YAWNS NB\) study](#) was designed to answer the question, "what proportion of people reduce and/or stop their sleeping pills when mailed printed information packages?" Led by Dr David Gardner and Dr Andrea Murphy, from Dalhousie University, the project is jointly funded by the New Brunswick Government and Public Health Agency of Canada. The Healthy Seniors Pilot Projects grant competition offered the perfect opportunity to evaluate a booklet version of Sleepwell ([mysleepwell.ca](http://mysleepwell.ca)) as a direct-to-patient educational intervention. The study had 3 groups: the Sleepwell package, EMPOWER package, and treatment-as-usual (TAU: no package) group. Over 500 participants were interviewed once at the start of the study and again 6 months later. Sleepwell and EMPOWER packages were more effective than TAU in helping people to reduce and stop their sleeping pills. Reassuringly, no negative impacts on sleep occurred when participants reduced their use of sleeping pills. Full details of the study's findings will be published in 2023.

The YAWNS NB study is one of several showing that patients can take a lead role toward ending long-term sedative-hypnotic use while adopting new way to get a good night's sleep without medication.



*Dr David Gardner and Dr Andrea Murphy lead the YAWNS NB study*



*Sleepwell booklets*

## Improving medication use through Collective Impact

The [SaferMedsNL](#) public awareness campaign was deployed across Newfoundland and Labrador (NL) in 2019 to make positive changes to medication use in the province. The Canadian Medication Appropriateness and Deprescribing Network and Memorial University of Newfoundland's School of Pharmacy, in partnership with the provincial government, aimed to improve the use of proton pump inhibitors, commonly used heartburn medication, and sedative-hypnotics through collective impact. Between 2019-2021, in collaboration with key stakeholders, SaferMedsNL promoted awareness of the benefit and harms of these medications and provided resources for patients and healthcare professionals to promote meaningful conversations to ensure medications are continued when necessary and safely stopped when they are no longer needed.

In 2022, the project moved into its analysis phase. Preliminary results show that collective impact was seen by most stakeholders as a suitable strategy to bring together stakeholders from across sectors, shift away from the isolated impact of a single organization and encourage stakeholders to focus on a collective approach to tackle a complex and wide-scale public health issue.

Stay tuned, results to be published in 2023!



*Dr Justin Turner, Scientific Lead for SaferMedsNL, presents early outcomes on patient engagement and health policy at the first International Conference on Deprescribing in September 2022 in Kolding, Denmark.*

## Developing & Assessing Practical Tools for Clinicians

### A tool to help clinicians identify prescribing cascades

Prescribing cascades contribute to polypharmacy and are important targets for deprescribing. ThinkCascades is a new consensus-based tool to help clinicians identify clinically important prescribing cascades affecting older adults. Dr Lisa McCarthy led its development on behalf of the iKASCADE international team, which is led by Dr Paula Rochon. The tool raises awareness about the listed cascades but will also help clinicians recognize other prescribing cascades in practice.

[For more about ThinkCascades](#)

[For more about iKASCADE](#)

### The development of deprescribing statins guidelines

Together with Dr Barb Farrell (University of Ottawa), Dr Wade Thompson (University of British Columbia) and Dr Lisa McCarthy (University of Toronto), Dr Lise Bjerre (University of Ottawa; Institut du Savoir Montfort) is leading the development of a deprescribing guideline for statins, a class of lipid-lowering medications, and one of the most frequently prescribed medication classes in Canada. This deprescribing guideline and its resultant tools (e.g., the deprescribing algorithm) will provide healthcare providers with clear guidance on deprescribing statin medications. Patient information pamphlets and related materials will also be produced to support patients and their caregivers. All of these resources will be available globally through the [deprescribing.org](https://deprescribing.org) platform. With the support of a Ministry of Health Innovation Fund grant, a guideline development team was established composed of experienced clinicians, researchers and patient representatives. Review and synthesis of an imposing body of evidence are underway, and a systematic review of the benefits and harms of deprescribing versus continuation of statin medications is expected to be completed by early 2023.



## ***Measuring Quality of Life in Deprescribing Trials***

### **How does deprescribing affect quality of life?**

When people take more medications than they need or experience side effects of medications, this can negatively affect their quality of life (QoL). Deprescribing would ideally improve a person's QoL and is considered a very important thing to measure when evaluating the effect of deprescribing in clinical trials. However, clinical trials of deprescribing do not often measure QoL. Even when they do, it is unclear what the best approach is to measure it.

An international team of deprescribing researchers and patient/public partners co-led by Dr Carina Lundby and Dr Wade Thompson are exploring how to best measure QoL when conducting deprescribing trials by reviewing literature, interviewing patients, and gathering consensus from experts. Their goal is to improve the ability of researchers to evaluate the effect of deprescribing on the patient-important outcome of QoL. The project is supported by the [US Deprescribing Research Network](#).

## ***Learning From Existing Policies***

### **A review of public policies promoting the appropriate use of medications**

In 2020, an international review of public policies was initiated by members of the Network. The objective of this review is to identify public policies and programs implemented at the healthcare system level (national, state/provincial, regional or jurisdictional) that promote the appropriate use of medications and for which impacts have been measured and published in peer-reviewed scientific publications. This approach will inform the decision-makers involved in the creation of the future Canadian Drug Agency, as well as the actors behind the pharmaceutical policies and the health policies of different provinces and territories.

The preliminary findings of this research project identified 15 interventions in 4 different countries: Australia, Sweden, England and Scotland. Among these, 8 included educational measures, all targeting health professionals. Multifaceted interventions seemed to be the most effective. Finally, all identified interventions stemmed from a policy in place at the national level. Stay tuned: the results of the review will be published in early 2023.



# International Presence



The Canadian Medication Appropriateness and Deprescribing Network cherishes its collaborations with stakeholders, both nationally and internationally. This year, opportunities to meet with international partners - both virtually and in person - provided occasions to share resources, strengthen collaborations, and generate new ones.

### The first International Conference on Deprescribing held in Kolding, Denmark

In September 2022, Dr Wade Thompson and Dr Carina Lundby co-chaired the very First [International Conference on Deprescribing \(ICOD\)](#) in Kolding, Denmark. This event brought together around 250 deprescribers from over 20 countries who shared the latest and greatest research and innovations in the field. The event featured workshops, keynote presentations, oral abstract sessions, posters, and lots of networking opportunities.

The Network's Scientific Director Dr Emily McDonald attended the conference and presented the Network's approach to deprescribing in Canada. This was also an opportunity to present the organization's new name and logo!



Participants at ICOD conference



Dr McDonald presenting the new name and logo of the Network at ICOD



Panel discussion at ICOD

### Dr Barb Farrell gives keynote presentation at US Deprescribing Research Network Annual Meeting

Dr Barbara Farrell, Co-Chair of the Healthcare Provider Committee, Co-Founder and Core Executive Member of the Network, was invited to give the keynote presentation at the United States Deprescribing Research Network's Annual Meeting in May 2022. This presentation covered early deprescribing efforts at Bruyère Continuing Care 20 years ago, through to the development and implementation of the internationally-used deprescribing guidelines, highlighting the need for deprescribing research that will make a difference in the real world.



*Barb Farrell presenting keynote address at at US Deprescribing Research Network Annual Meeting*

### The Inaugural International Deprescribing Journal Club Took Place!

Fall 2022 was the official launch of the International Deprescribing journal club, in partnership with four other deprescribing networks representing different regions.

The journal club is for clinicians and researchers around the globe looking to connect and discuss recent deprescribing publications and complex clinical cases. The goals are to strengthen partnerships among international deprescribing networks, stay current with the literature, share knowledge and build momentum and collaboration to facilitate larger international deprescribing trials showing impacts of deprescribing. For more information and to join the conversation, visit [DeprescribingNetwork.ca/journal-club](https://DeprescribingNetwork.ca/journal-club)



[Watch the presentation by clicking here](#)



*Networks partnering on the organization of the International Deprescribing Journal Club*

# What's Next?

In 2023, members of the Canadian Medication Appropriateness and Deprescribing Network will continue to make medication safety a priority in their own communities, health care organizations, clinics, research labs, etc. The challenges are great and the motivation of our members, even more so.

## ***Here are the Network's priorities for 2023:***



**Support a future Canada Drug Agency** – we will contribute to informing the creation of an appropriateness component within this new national agency. We will continue to engage with policy makers, providers and the public in different provinces and territories to know exactly what the needs are and how best to meet them, and to work on potential options for ensuring that needs are being met in the future.



**Expand our research network and activities** – we will further unite Canadian researchers who have an expertise in medication appropriateness and foster a positive collaborative environment. We are very eager to help advance the careers of early-career researchers and trainees in particular as our future rests with them.

[Contact us](#) to learn more or [join as a research affiliate!](#)



**Strengthen deprescribing education** – based on the principles of our educational framework (see page 17), we will put in place knowledge transfer activities to better equip those who train the healthcare professionals of tomorrow.

Are you an educator? [Contact us](#) to learn about the framework!



**Embody values of diversity and inclusion** - we will continue to create new partnerships with groups who represent our country's rich diversity and will strengthen existing ones.

[Contact us](#) if you would like to help raise awareness in your community or if you would like to take on the role of medication safety speaker at public events. All languages encouraged and welcomed!

## ***Get involved!***



Let's work together to create intersectional change and promote the safe and appropriate use of medications.

Contact us at [info@caden-recad.ca](mailto:info@caden-recad.ca)

## The Canadian Medication Appropriateness and Deprescribing Network is funded by :



## Special thanks to :

