

Medication Appropriateness for All Canadians

Leading the Way



2023-2024

Annual Report



**Canadian Medication
Appropriateness and
Deprescribing Network**



The Canadian Medication Appropriateness and Deprescribing Network (CADeN) is a group of clinicians, educators, people with lived experience, policymakers, and researchers. We work together to produce, share, and apply information to 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 an appropriate prescribing continuum. 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 improve medication appropriateness through reducing medication burden and risk, while maintaining or improving quality of life.

Visit DeprescribingNetwork.ca for more information.

Contact: info@caden-recad.ca



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[Canadian Medication Appropriateness and Deprescribing Network](#)

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The views expressed herein do not necessarily represent the views of Health Canada.



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

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Table of Contents

Land acknowledgement	5
Letter from Directors	6
Who are we? The committees leading CADeN's efforts	8
The CADeN 2023 National Meeting	12
Raising public awareness from coast to coast to coast	16
Public presentations	17
Medication safety articles & resources	20
Development of meaningful partnerships with community organizations	21
Adaptation & translation of the medication safety toolkit	24
The network in the media	26
Social media reach	27
Health care provider awareness & education	28
Knowledge mobilization campaign on a first curricular framework for deprescribing	29
Integration of deprescribing in the culture of long-term care homes in Ontario	33
Development of continuing education programs	33
Research	35
Clinical trials	36
Deprescribing guidelines	44
Evidence reviews	45
Students	46
International presence	49
International Deprescribing Journal Club	50
Network tools, resources and presentations around the globe	51
What's next?	53



Mountains and forest in Vancouver, Canada

Land acknowledgement

The Canadian Medication Appropriateness and Deprescribing Network (CADeN) honours the traditional territories upon which our directorship, staff, members, and partners live and work. We recognize that the lands we have the privilege to call home and which enable the health of our communities are by and large unceded, and that mistakes made throughout our colonial history have caused profound harm to their original stewards: the Indigenous peoples of Canada.

As part of our commitment to Truth and Reconciliation, CADeN resolves to build strong relationships with Indigenous communities from coast to coast to coast, and to partner with Indigenous communities in research and actions reflecting their priorities and their ways of knowing and being. Furthermore, we aim to engage in projects to decolonize and produce culturally safe resources that support communities in the goal of promoting health and eliminating medication-related harm.

We acknowledge that we hold offices in both Tiohtià:ke/Montréal, the unceded territory of the Kanien'kehá:ka Nation, and in Moh'kins'tsis/Calgary, Treaty 7 and Métis Region 3 territory.

Tiohtià:ke/Montréal has a long history as a place of gathering and exchange for many First Nations, including the Kanien'kehá:ka of the Haudenosaunee Confederacy, Huron/Wendat, Abenaki, and Anishinaabeg.

Moh'kins'tsis/Calgary is a traditional meeting place of the Blackfoot and the people of the Treaty 7 region in Southern Alberta, which includes the Siksika, the Piikani, the Kainai, the Tsuut'ina, and the Stoney Nakoda First Nations. The City of Calgary is also home to Métis Nation of Alberta, Region 3.

Letter from Directors



Dr. Emily McDonald, Scientific Director (left) and Dr. Jim Silvius, Executive Director (right)

It is with pride that we celebrate another year of Canadian Medication Appropriateness and Deprescribing Network (CADeN) activities.

We had a strong start to the year: in April 2023, CADeN received funding from Health Canada with the goal of advancing medication appropriateness across the country in preparation for a future Canadian Drug Agency (CDA). Convinced our network could make a difference, our diverse members were compelled to contribute, investing time and energy in sharing our collective experience, knowledge, and expertise. This year's annual report describes how we accomplished this:

We amplified the voices of public members: as has been the case since the network's founding, our Public Awareness Committee and community of patient partners and public members played a pivotal role in the network's governance and activities. With their help, we developed new medication safety resources for the public in nine different languages. We strengthened our partnerships with community organizations and reached more Canadians by delivering public presentations and by distributing resources on medication safety. Throughout the year, we sought feedback on our public presentations and updated the content, ensuring continuous quality improvement. Importantly, we also took a first small step towards engaging in meaningful work to implement the Truth and Reconciliation Commission's Calls to Action and the United Nations Declaration on the Rights of Indigenous Peoples by creating a designated working group to develop a report and 5-year action plan outlining how the network can start to decolonize and Indigenize its structure and outputs.

We invested in strengthening health care professional education in deprescribing: with the publication of a [deprescribing curricular framework](#) by CADeN Health Care Provider committee members, educators and curriculum developers can now access the information they need to teach and assess deprescribing competencies. As part of an extended knowledge transfer plan, we held workshops and delivered oral presentations, panels and poster sessions on the curricular framework. We also took part in events as exhibitors to share essential deprescribing tools with health care workers. New online continuing education programs were developed to help clinicians access the additional training required to provide the best care possible when prescribing and managing their patients' medications.

We led research in medication appropriateness and deprescribing. This year, as a funded network of the Accelerating Clinical Trials Consortium (ACT), we contributed to ACT's mission to break down barriers to conducting clinical trials in Canada. We studied polypharmacy, inappropriate prescribing, associated costs, and effective tools and interventions to improve prescribing practices through clinical trials, implementation science, and epidemiological studies. Our members' research outputs addressed a broad range of topics, from improving the health of those at greatest risk of medication harm, such as patients with HIV and those in need of dialysis, to improving electronic tools supporting appropriate medication use, to producing new evidence reviews and deprescribing guidelines. We disseminated our findings through presentations at scientific symposiums, via abstracts, peer-reviewed publications, and by establishing a growing research community of practice.

We facilitated collaborations between stakeholders and generated evidence for policy makers. Alongside Choosing Wisely Canada, we supported the creation of a coalition of partners with an interest in appropriate medication use. In November, we held our National Meeting in collaboration with the Canadian Drug Agency Transition Office, gathering key public, health care, policy and research partners together in Montréal. More than 100 attendees strengthened connections, shared projects and perspectives, and brainstormed strategies to promote medication appropriateness in their communities and networks. Driven by a commitment to equip policy makers with evidence, in February we published [a rapid realist review](#) of the factors impacting the effectiveness of system-level policies to promote the appropriate use of medicines in high-income countries.

What's next? In December, the Honorable Mark Holland, Minister of Health, [announced the creation of the Canadian Drug Agency \(CDA\)](#). The CDA will build on the Canadian Agency for Drugs and Technologies in Health's (CADTH) existing mandate and functions, expanding them to include new work streams—such as the appropriate prescribing and use of medications. The government also reiterated its intention to publish a pan-Canadian strategy on the appropriate use of medications, which we applaud. Our annual report demonstrates our network's commitment to expanding its work alongside the new CDA, in the shared goal of supporting the advancement and implementation of medication appropriateness research, resources, practices, and programs for Canada's diverse peoples.

We sincerely thank all involved for their dedication, and the following funders for their trust and support: Health Canada, Accelerating Clinical Trials Canada, and the Canadian Institutes of Health Research. We invite you to contact us if you, too, would like to be a part of this important initiative.

Sincerely,



Dr. Emily McDonald, MD, MSc, FRCPC
Scientific Director



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

Who are we? The committees leading CAdDeN's efforts

Bringing together members of the public, healthcare professionals, researchers, educators, and policy makers to produce, share, and apply evidence-based information in the goal of promoting the safe and appropriate use of medications, CAdDeN relies on strong leadership and teamwork among members with expertise in different sectors. The following pages briefly present the working groups that oversee the direction of the network, and carry out its activities.

Executive Committee

The Executive Committee sets the strategic direction for the network and is responsible for overseeing how this strategic planning is implemented. The Executive also ensures collaboration and communication between the network's various committees. It is composed of the network's executive and scientific directors, the chairs of the network's Public Awareness, Health Care Provider and Research committees, a patient partner, an early career representative, a member from the Indigenous Working Group and specific appointments based on needs and expertise. [Click here to learn more about our Executive Committee members.](#)



Members of the CAdDeN Executive Committee

Public Awareness Committee

The network's Public Awareness Committee members are patient safety advocates and champions of seniors' and community issues in their respective provinces. This committee comes together to share their ideas and initiatives, as well as to develop and spread tools and information about medication overload and deprescribing in communities across the country. A primary goal of their public education work is to promote informed medication safety conversations between members of the public and health care professionals. Members provide guidance and participate in the development and implementation of tools, resources and events for the public, as well as in strategies to meaningfully engage patients in research. [Click here to learn more about our Public Awareness Committee members.](#)



The CADeN Public Awareness Committee meeting at the 2023 CADeN National Meeting

Health Care Provider Committee

Members of the Health Care Provider Committee are medication safety champions representing diverse health care professions, including medicine, nursing and pharmacy as well as allied healthcare professionals. By developing and distributing tools and information, the committee aims to improve health care providers' knowledge and competency in the area of safe and appropriate prescribing. This includes the safe deprescribing of medications that may be risky or unnecessary. The committee is devoted to working with educators to integrate deprescribing knowledge and competencies into the curricula of health care professional training programs, particularly nursing, pharmacy and medicine. [Click here to learn more about our Health Care Provider Committee members.](#)



The CADeN Health Care Provider Committee meeting during the 2023 CADeN National Meeting



Indigenization Working Group

The Indigenization Working Group (IWG) was formed in the fall of 2023 with the mandate to develop a 5-year action plan to decolonize and Indigenize the network. In addition to advising and leading CADeN's work to weave Indigenous ways of knowing, thinking, being, and doing into the structure, processes, goals, and projects of the network, the IWG aims to build respectful, reciprocal relationships and partner with Indigenous Peoples, communities, health organizations and health care professionals. One of the goals of these efforts is to co-produce research and resources that promote the safe and appropriate use of medications, in the context of supporting Indigenous patients' right to holistic care. [Click here to learn more about our Indigenization Working Group members.](#)

Research Committee

The Research Committee's goal is to set, lead and promote a medication appropriateness and deprescribing research agenda across Canada. Importantly, members help identify knowledge gaps, advances or opportunities in medication appropriateness research for the network. Members collaborate to develop clinical trials, apply for grants, create a welcoming environment for early-career researchers and trainees, and disseminate research findings. Research committee members are self-identified academic researchers with a focus on the safe and appropriate use of medications, as well as trainees with an interest in exploring an academic career in medication appropriateness research. [Click here to learn more about our Research Committee members.](#)



The CADeN Research Committee meeting during the 2023 CADeN National Meeting

The CADeN 2023 National Meeting

The network’s capacity to engage and collaborate with a broad range of individuals and organizations involved in medication appropriateness has long been recognized. This was demonstrated again on November 8th and 9th, 2023, with CADeN hosting its third National Meeting in Montréal, Quebec. The National Meeting was an opportunity for more than 100 stakeholders to present their efforts in medication appropriateness, create and strengthen connections, brainstorm novel solutions to address medication overload and, importantly, to voice their priority areas and recommended approaches for future initiatives promoting the safe and appropriate use of medications in Canada. The meeting included members of the public, health care providers, researchers, students, health organisation representatives and policy-makers from 10 of the 13 Canadian provinces and territories, as well as the United States and Australia.



Opening remarks of the National Meeting by Dr. Emily McDonald and Dr. Jim Silvius

In addition to meeting the objectives listed in the previous paragraph, the CADeN 2023 National Meeting helped support the work of the [Canadian Drug Agency Transition Office](#) (CDATO). As an important collaborator and stakeholder of the CDATO, CADeN has, from the start, been involved in their work leading the development of a vision, a mandate and a plan to create a Canadian Drug Agency.

The publication of the [6-step National Strategy for Appropriate Medication Use](#) by Dr. Jim Silvius, CADeN executive director, and Dr. Justin Turner, international consultant and past scientific director, led to the recognition of the network’s expertise in health policy and the importance of this process. Thus, in 2023-2024, CADeN has supported the CDATO by advising the organization’s work and connecting it with others working in this area, to learn about and document medication appropriateness initiatives underway in the different provinces and territories.



Our proposed 6-step National Strategy for Appropriate Medication use

CADeN Executive Committee members have contributed to the work of the CDATO on an ongoing basis, with Dr. Jim Silvius and Connie Newman, the chair of the network's Public Awareness Committee, acting as standing members on the [Appropriate Use Advisory Committee](#). Building on these past and ongoing efforts, the CADeN 2023 National Meeting was seen as a new opportunity for the CDATO to learn from the experience and expertise of the CADeN membership.



Attendees regrouped in the main room of the National Meeting



Table conversations between attendees

The Summit kicked off with CADeN's Public Awareness Committee, Research Committee, and Health Care Professional Committee each convening. In their initial meeting, each of the committees aimed to identify successful initiatives from the last few years, conduct an analysis of strengths, achievements, opportunities, aspirations, and desired outcomes for their committee, and determine the committee's priorities and draw up an achievable action plan and timeline. The outcomes of each discussion were then presented to members of the other committees with one goal top of mind: to identify opportunities for collaboration to achieve each of the defined objectives.

During the CADeN committee meeting, the Research and the Public Awareness Committees agreed that a stronger partnership was needed to co-develop research initiatives that respond to real needs in appropriate medication use, expressed by patients and their loved ones. The Health Care Provider Committee presented their plan to integrate deprescribing competencies into university-level health care curricula, with the additional aim of measuring the impact of these efforts. Once more, a partnership with the Research Committee was welcomed to ensure this process would be thoroughly documented and evaluated.



The CADeN National Meeting was an opportunity for exchange among stakeholders from various backgrounds

The Research Committee shared its plans to grow its community of collaborators and affiliates over the upcoming year, and to ensure continued funding for deprescribing research (and CADeN) by submitting a grant to the Canadian Institutes of Health Research for evaluation of a large-scale deprescribing intervention.

During the first keynote address of the National Meeting, Susan Fitzpatrick, head of the Canadian Drug Agency Transition Office (CDATO), provided an update on efforts to create a Canadian Drug Agency (CDA). She also shared the next steps towards the implementation of a national strategy for the appropriate use of medications in Canada. Participants were then given the opportunity to contribute to the development of the strategy. In small groups, they shared their perspectives on priority activities for the CDA's appropriate use program, and discussed ways not only to evaluate these activities but to communicate evaluation results to the public.

The conversations held during the CDATO consultations were rich and varied, as expected considering the broad range of partners in attendance.. Topics discussed included increasing public engagement, knowledge dissemination, support towards health care providers, improving access to, and the sharing of, patient information and improving the reporting of adverse drug events.



**CADeN National Meeting speaker
Dr. Corinne Hohl**



**CADeN National Meeting keynote speaker Susan
Fitzpatrick, head of the Canadian Drug Agency
Transition Office**



Attendees mingling between sessions

During the second day of the National Meeting, successful initiatives and strategies to promote medication appropriateness in Canada were showcased during research and keynote sessions, highlighting the impact of including members of the public alongside clinicians and policy-makers in the development and implementation of deprescribing initiatives as well as the promising potential of information technology tools and applications to support appropriate prescribing.



Dr. Lise Bjerre presenting in the Oral Research Presentations



Dr. Larry Leung, Rhonda Schooner, Verna Arcand and Dr. Cheryl Sadowski, speakers of the "Towards Reconciliation: Partnering in Indigenous-led Research" session.

A session dedicated to Indigenous Health presented efforts in promoting inclusive care and safer access to medication for Indigenous Peoples. During a discussion panel, experts proposed potential solutions to address medication overload in Canada from curricular, environmental and political standpoints. Group activities encouraged dialogue between attendees, who brainstormed more creative solutions to improve medication appropriateness in Canada.

During the national meeting, students and medical trainees were also invited and given a platform to share and obtain feedback on their research related to medication appropriateness with researchers in the field.

These many sessions of the 2023 National Meeting made for a highly engaging and fruitful event, building momentum in the promotion of safe and effective use of medications across Canada. For more details on the 2023 National Meeting's many different sessions, a Summary Report is available on the CADeN website: [click here to access the 2023 National Meeting Summary Report](#). Look out for the complete proceedings of the meeting, to be published in the coming year.



Student sharing their research with attendees



Raising public awareness from coast to coast to coast

In 2023-2024, the network's public awareness activities had a singular focus: to improve the accessibility of evidence-based information and resources on safe and appropriate medication use for Canadians of diverse cultural and geographical backgrounds. This was made possible by working with public partners and community leaders, as well as by partnering with public organizations serving or representing diverse communities across the country.

Through the delivery of in-person presentations and webinars, the publication of articles, and the distribution of resources—both paper and digital, the network promoted essential conversations about medication safety and deprescribing between patients and healthcare providers.

Public presentations

Throughout the year, public presentations were delivered across the country, in both virtual and in-person formats. This was an opportunity for passionate medication safety champions to meet and share information with members of their community. The goals of this presentation are to explore the following questions:

1. Why are we more sensitive to the effects of medications with age?
2. In what situations may the risks of medications outweigh benefits?
3. How can patients, caregivers and health care providers collaborate to prevent harmful effects of medications?

The presentation was developed by health care professionals and members of the public, and is available in English, French, Mandarin, Cantonese, Urdu, Korean, Hindi, Punjabi and Tagalog. Partners and collaborators are welcome to view and use the presentation slide deck. [Contact us if you would like to organize a presentation in your community!](#)

Women are more at risk

Longer life expectancy

Female biology and physiology increases the risk of harmful effects of medication

Women are more at risk

Take more medications

Suffer from more chronic conditions

Canadian Medication Appropriateness and Deprescribing Network

16

ਵਿਅਕਤੀ ਵਜੋਂ : ਤੁਸੀਂ ਕੀ ਕਰ ਸਕਦੇ ਹੋ?

ਇਹ ਪੁੱਛਣ ਲਈ ਕਿ ਉਹ ਦਵਾਈਆਂ ਨੂੰ ਖੱਟ ਕਰ ਸਕਦਾ ਹੈ ਜਾਂ ਨਹੀਂ, ਆਪਣੇ ਡਾਕਟਰ, ਫਾਰਮਾਸਿਸਟ ਜਾਂ ਨਰਸ ਨਾਲ ਵਿਸ਼ੇਸ਼ ਮਿਲਣ ਦਾ ਪ੍ਰਬੰਧ ਕਰੋ।

ਆਪਣੀ ਦਵਾਈ ਬੰਦ ਕਰਨ ਤੋਂ ਪਹਿਲਾਂ ਸਦਾ ਹੀ ਆਪਣੇ ਡਾਕਟਰ, ਫਾਰਮਾਸਿਸਟ ਜਾਂ ਨਰਸ ਨਾਲ ਗੱਲ ਕਰੋ। ਤੁਸੀਂ ਕੀ ਕਰ ਸਕਦੇ ਹੋ?

Canadian Medication Appropriateness and Deprescribing Network

Sirois et al. 2016. Research in Social and Administrative Pharmacy (4):864-870

수면제는 이점보다 유해성이 더 크기 때문에 위험한 약물입니다.

이점: 더 빨리 잠들 수 있도록 도와줍니다 - 평균 14분 더 빠름

하지만 다음과 같은 위험성 증가:

낙상 및 골절 자동차 사고 기억력 문제

Canadian Medication Appropriateness and Deprescribing Network

Glass, J. et al. BMJ 2005;331:1169

As an individual: what can you do?

Make a special appointment with your doctor, pharmacist, or nurse to discuss whether you can reduce or stop any of your medications.

Always speak to your doctor, pharmacist or nurse before stopping any medication.

Canadian Medication Appropriateness and Deprescribing Network

Sirois et al. 2016. Research in Social and Administrative Pharmacy (4):864-870

Slides from our public presentation on medication safety and deprescribing in various languages

A year of presentations!



32

The number of in-person presentations or webinars on medication safety and deprescribing organized this year



21/32 (66%)

Proportion of virtual presentations



650

Total number of presentation participants (average of 20 participants per presentation)

Provinces of the organizations that hosted the presentations:

- British Columbia (3)
- Alberta (2)
- Manitoba (3)
- Ontario (16)
- Quebec (3)
- Nova Scotia (4)
- National (1)

Presentation languages: English (17), French (5), other language (10)

[View the results of our public presentation evaluations here](#)

The screenshot shows a webinar interface. On the left is a presentation slide with the following content:

What are risky medications?
什麼是有風險的藥物?

The potential risks of a medication outweigh the potential benefits.
一種藥物的潛在風險大於潛在的益處。

A safer alternative treatment for the same condition exists that is equally or more effective.
在治療同一病情上，存在更安全的替代療法，并且同樣或更有效。

At the bottom of the slide is a logo for the Canadian Medication Appropriateness and Deprescribing Network (CADeN) and a small image of a scale of justice.

On the right side of the screenshot is a video call interface with a video feed of a woman (Dr. Winnie Sun) at the top, and three name tiles below: T Lam, Grace Hou, and Li 倩.

CADeN member Dr. Winnie Sun presented a webinar on the topic of safe use of medications in Cantonese to members of the Chinese senior program at the Support Enhance Access Service (SEAS) Centre in Scarborough, Ontario

Meet some of our medication safety presenters & partners!

“

“As a second-generation Chinese immigrant and Ph.D. student in epidemiology, my passion is improving population health, especially for minority groups. Joining the network as a presenter allows me to give back to my community and contribute to knowledge translation. (...) This experience has reshaped my perspective, emphasizing the need for research to benefit communities directly, reinforcing my commitment to making a real impact on community health.”

”



Xiang Xiao, Ph.D. candidate in Epidemiology at the University of Alberta

“

“We had the pleasure of sharing information with Urdu-speaking older adults about safe medication use. We appreciated learning from the attendees that deprescribing was an unfamiliar topic to many but that they are hopeful and excited to implement some of the discussed strategies into their own lives and use the resources we shared.”

”



Christina Kang (left) and Pooka Sankar (right), students in pharmacy (Kang) and medicine (Sankar) at the University of Toronto

“

“It was great to be able to talk about overmedication and deprescription with residents of my community, in Brossard (Quebec). I learned even more about the reality of older people who have to seek health care all the while managing significant polypharmacy. During my presentation, the energy in the room was strong, filled with hopes for safer prescribing!”

”



Nurse clinician and PhD candidate Émilie Bortolussi-Courval (McGill University)

Medication safety articles & resources

Throughout the year, the network disseminated information about medication safety and deprescribing in partnership with community organizations. We did this by publishing articles in magazines and newsletters, and by distributing medication safety resources both electronically and at public events. Resources were also shared in our official network newsletter, which is published approximately every two months and goes out to over 3,000 recipients. [Click here to consult previous editions of the newsletter.](#)

Spreading the tools: a few numbers



3,637

Number of paper resources (e.g., brochures, handouts, posters) distributed to community organizations



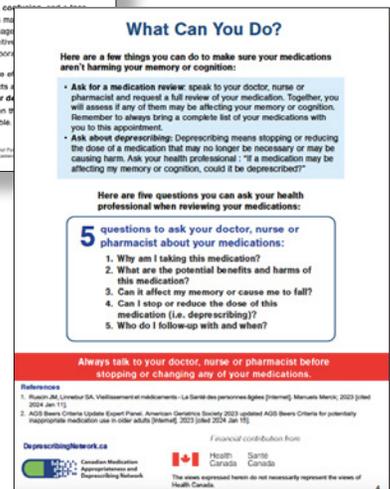
52

Number of community organizations sent a virtual toolkit



37

Number of public education articles published in newsletters or magazines



Articles published in *Caregiver Solutions Magazine* on prescribing cascades and in *Abilities Magazine* on the safe use of medications during summer heat waves

The article *Medications and Memory* was shared by over 15 different community organizations across the country in January, coinciding with Alzheimer's Awareness Month

Development of meaningful partnerships with community organizations

In 2023, the network continued to foster its partnerships with community organizations in all ten Canadian provinces. This report presents just a few examples of our existing partnerships, which aim to ensure all parties benefit in a meaningful way. For a full list of our partners, [click here](#).

The Manitoba Association of Senior Communities

The [Manitoba Association of Senior Communities \(MASC\)](#) is a province-wide organization representing over 80 member centres and, through the Age-Friendly Initiative, over 90 communities. MASC Executive Director Connie Newman is an inspiring and longstanding CADeN champion. Through her leadership, MASC has offered innumerable workshops, talks, resources, and articles about medication safety to its senior community members across the province since 2018. This year, in addition to several presentations and other public awareness activities, MASC investigated how to use its broad reach and connected networks to integrate CADeN's medication safety resources within their offerings sustainably: stay tuned for updates in 2024!



MASC's Executive Director Connie Newman (standing) speaking up during CADeN 2023 National Meeting

The Retired Teachers' Association of the Nova Scotia Teachers' Union

The [Retired Teachers' Association of the Nova Scotia Teachers' Union \(RTA NSTU\)](#) has been a dedicated advocate for the safe and appropriate use of medications since 2018. Over the years, they've held presentations and shared numerous resources with their 130,000 members as well as partner organizations across Canada. In the fall of 2023, their Past President Bill Berryman, a strong champion of the network since 2018, invited our Patient & Community Engagement Lead, Jennie Herbin, to present to the Seniors' Advisory Council of Nova Scotia. The RTA NSTU also published information in their fall newsletter on the importance of regular medication check-ups with a health care professional to look for opportunities to deprescribe.

Yee Hong Caregiver Education and Resource Centre

Program worker Fiona Lam has collaborated with the network to organize two presentations in Cantonese for senior members of [Yee Hong Caregiver Education and Resource Centre](#) in Richmond Hill, Ontario.

“

“It is my pleasure to work with the CADeN team to foster positive change in the community, especially for our seniors and caregivers. Working with the team helps us to identify common issues of medication use and bring useful resources on medication safety to our clients.”

”



Fiona Lam, program worker at the Yee Hong Caregiver Education and Resource Centre in Richmond Hill, Ontario

Seniors Action Quebec

[Seniors Action Quebec](#) is a not-for-profit provincial organization whose mission is to identify, advance, and address the needs of English-speaking seniors and to support organizations who work with and on behalf of English-speaking seniors throughout the province of Quebec. Throughout the year, they have collaborated with CADeN to ensure medication safety resources are available for English-speaking seniors in Quebec. Émilie Bortolussi-Courval, nurse clinician and PhD candidate who completed a placement with CADeN, was invited earlier this year to present on important information about deprescribing and the safe management of medications to members of Seniors Action Quebec.

Seniors' Health & Wellness Institute

The [Seniors' Health & Wellness Institute](#), an affiliate of the [Council of Senior Citizens' Organizations of BC](#), has been providing "Age Well, Live Well with Safe Medication Use" workshops in Cantonese and English to British Columbia seniors since 2018. Developed in collaboration with CADeN, participants learn about medication overload, deprescribing, and why regular medication check ups are so important, especially as we get older. In 2023, 108 seniors across the province participated in this workshop!



Members of the Seniors' Health & Wellness Institute

Caregivers' Nova Scotia

When caregivers have concerns and questions about the medications their loved ones are taking, where can they turn? This year, Caregivers' Nova Scotia facilitators shared resources to help caregivers across the province with this question through their peer support groups. Executive Director Jenny Theriault also teamed up with our network to offer a workshop for the organization's staff and volunteers on the safe and appropriate use of medications.



Caregivers NS staff presenting the CADeN resources

The Calgary Chinese Elderly Citizens' Association

The [Calgary Chinese Elderly Citizens' Association \(CCECA\)](#) is a vibrant organization in the heart of Calgary offering a plethora of programs and services for local seniors. This past year, CCECA Executive Director Liza Chan worked with CADeN staff to develop a plan for sharing information and resources on safe medication use and deprescribing with the staff and seniors of her centre and beyond. The sharing of articles and resources on medication safety, and a presentation to her group (in English, with Cantonese interpretation) were exciting first steps. Liza also invited CADeN Assistant Director Camille Gagnon to give a presentation to the leadership teams of the many Calgary seniors' organizations—an initiative which has connected CADeN to thousands of seniors in the city.

Adaptation & translation of the medication safety toolkit

In 2023, network team members collaborated with professional translators and healthcare professional champions to translate and proofread medication safety resources. The toolkit includes two handouts, a 35-minute PowerPoint presentation, a brochure promoting safe sleep, and a brochure which presents the risks of sleeping pills and offers safer alternatives. This expanded toolkit is now available in a total of 9 languages: English, French, Urdu, Punjabi, Hindi, Arabic, Chinese (Traditional and Simplified), Korean, and Tagalog. These translated tools have helped the network create new connections with diverse community organizations across the country. Visit [the following webpage](#) to discover our translated resources.

您需要合理用药点评吗?

使用药物需要权衡利弊

使用药物是一把双刃剑。药物既可以给我们的身体带来帮助，也可以带来伤害。所以随着时间的推移，权衡您所服用药物的潜在益处和危害很重要。

什么是过度用药?

过度用药是指服用我们不需要的药物，或者是服用的药物种类太多以至于给我们带来的伤害多于益处。

服用的药物种类太多是指服用了多少种?

其实没有严格的数目。就算只吃一种药，但如果它给您带来的弊大于利，那这个药也是多余的。

过度用药对身体是有害的

过度用药会导致药物相互作用和对身体有害的副作用。过度用药导致的后果有时会很严重。比如：

- 引起跌倒和骨折
- 导致住院治疗
- 使人过早丧失生活自理能力
- 损伤认知能力和记忆力
- 引发交通事故
- 导致死亡

哪些人群的风险最大?

服用多种药物的人、老年人、女性被药物伤害身体的风险最大。服用的药物种类越多，越容易对身体造成伤害。

1/10 老年人的住院治疗是因为所用药物的副作用而导致的。

怎样降低这种风险? 处方精简可能是个办法。

处方精简是指在与医生或者其他医学工作者的合作下停止服用，或者减少服用对您有害或者无益的药物。

Version 1.0: 2022/05/15

请页可查阅如何进行合理用药点评准备

जैसे-जैसे हमारी उम्र बढ़ती जाती है, हम जिन दवाओं का सेवन करते हैं उन दवाओं के प्रति सजग रहना चाहिए।

क्या आपको इस बात की जानकारी थी? 65 वर्ष से कम आयु के लोगों की तुलना में 65 वर्षियों की दवा के प्रयोग से होने वाले दुर्भावना प्रभावों के कारण पाए गए अधिक बुरा अस्पताल में भर्ती कारण जाना है!

2024 Canadian Institute for Health Information, 2023, Address Drug-Related Hospitalizations Among Seniors, 2016 to 2021.

Canadian Medication Appropriateness and Deprescribing Network

수면제는 이점보다 유해성이 더 크기 때문에 위험한 약물입니다.

이점: 더 빨리 잠들 수 있도록 도와줍니다 - 평균 14분 더 빠름

하지만 다음과 같은 위험성 증가:

- 낙상 및 골절
- 자동차 사고
- 기억력 문제

Canadian Medication Appropriateness and Deprescribing Network

Class, J, et al. BMJ 2005;331:1169

كيفية الحصول على نوم جيد بدون دواء

Financial contribution from:

- rugm
- University of Montreal
- Canadian Institute for Health Information
- La Chaire pharmaco-économique Michel Scalet et al. Centre de recherche en santé publique
- Canadian Medication Appropriateness and Deprescribing Network

Finland, Canada, Saudi Arabia

المملكة العربية السعودية، كندا، فنلندا

Examples of our medication safety toolkit resources in Simplified Chinese, Korean, Hindi and Arabic

Meet a few of the champions who helped lead our adaptation and translation efforts

“

“By serving as a translator, I have the privilege of bridging the language gap that separates some members of the Chinese-speaking community from this invaluable source of health information. The most rewarding aspect of this role is witnessing the final formatted translation and realizing that my efforts directly contribute to ensuring that this health resource is accessible to Chinese-speaking communities living in Canada.”

”



Dinghua Liang, pharmacist, Winnipeg

Dinghua helped with the translation of several medication safety resources from English to Mandarin.

“

“I believe in enhancing patient care and experience. A crucial aspect of this is educating patients and empowering them to manage their therapy. Knowing that I am able to contribute to a better patient experience and enhance patient safety is one of the most rewarding aspects of volunteering with CADeN.”

”



Fadi Aizouki, pharmacist, Alberta

Fadi contributed to translating medication safety resources from English to Arabic.

“

“My experience as a caregiver for my late grandfather has motivated me to support others by enhancing accessibility to health care information. Through my translation work with CADeN, I aim to make medication safety information more readily available to Punjabi and Hindi-speaking seniors, empowering them to make informed health decisions.”

”



Rishab Gupta, engineer, Nova Scotia

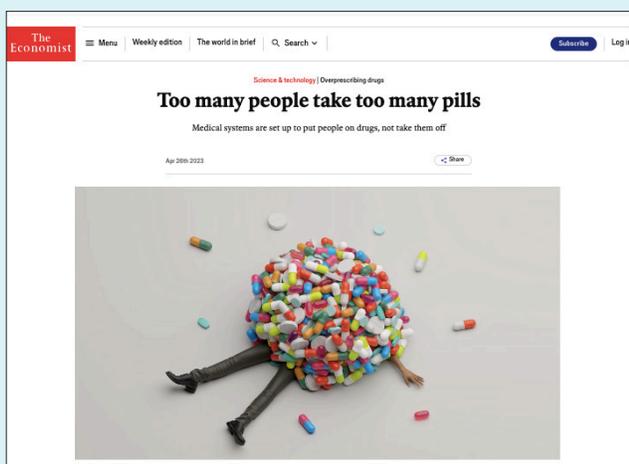
Rishab contributed to reviewing translations of medication safety resources from English to Punjabi and Hindi

The network in the media

Over the past year, members of the network were featured in several news stories on issues related to appropriate medication use. We take pride in our reputation as a reliable source of evidence-based information, connecting journalists with patient partners and advocates whose testimonials the public can relate to, and with researchers whose broad, balanced perspectives shed important light on the issues. In 2023-2024, network members from across Canada were featured in more than 20 written, televised and radio stories. [Access links to these media stories here.](#)



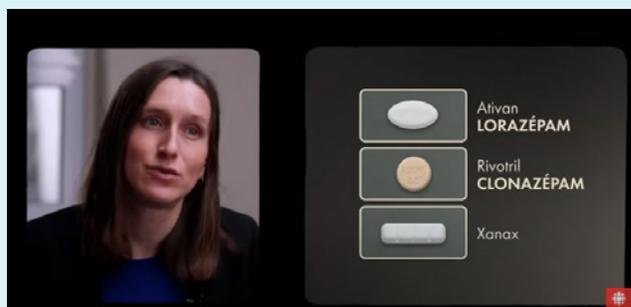
Network executive members and co-founders Johanna Trimble and Barb Farrell spoke about their experience with medication overload and how to address this issue in the magazine *Mind over Matter*



Barb Farrell (co-founder and executive member) and Emily McDonald (scientific director) were interviewed as part of a story published in *The Economist* on medication overload



Network Assistant Director Camille Gagnon discussed deprescribing on the TV show *Louis T veut savoir*, aired on Canal Savoie



Network Assistant Director Camille Gagnon and Public Awareness Committee member Georges Marcoux were featured in the show *Enquête* on the overprescribing of benzodiazepines, aired by Radio-Canada (February 2024)

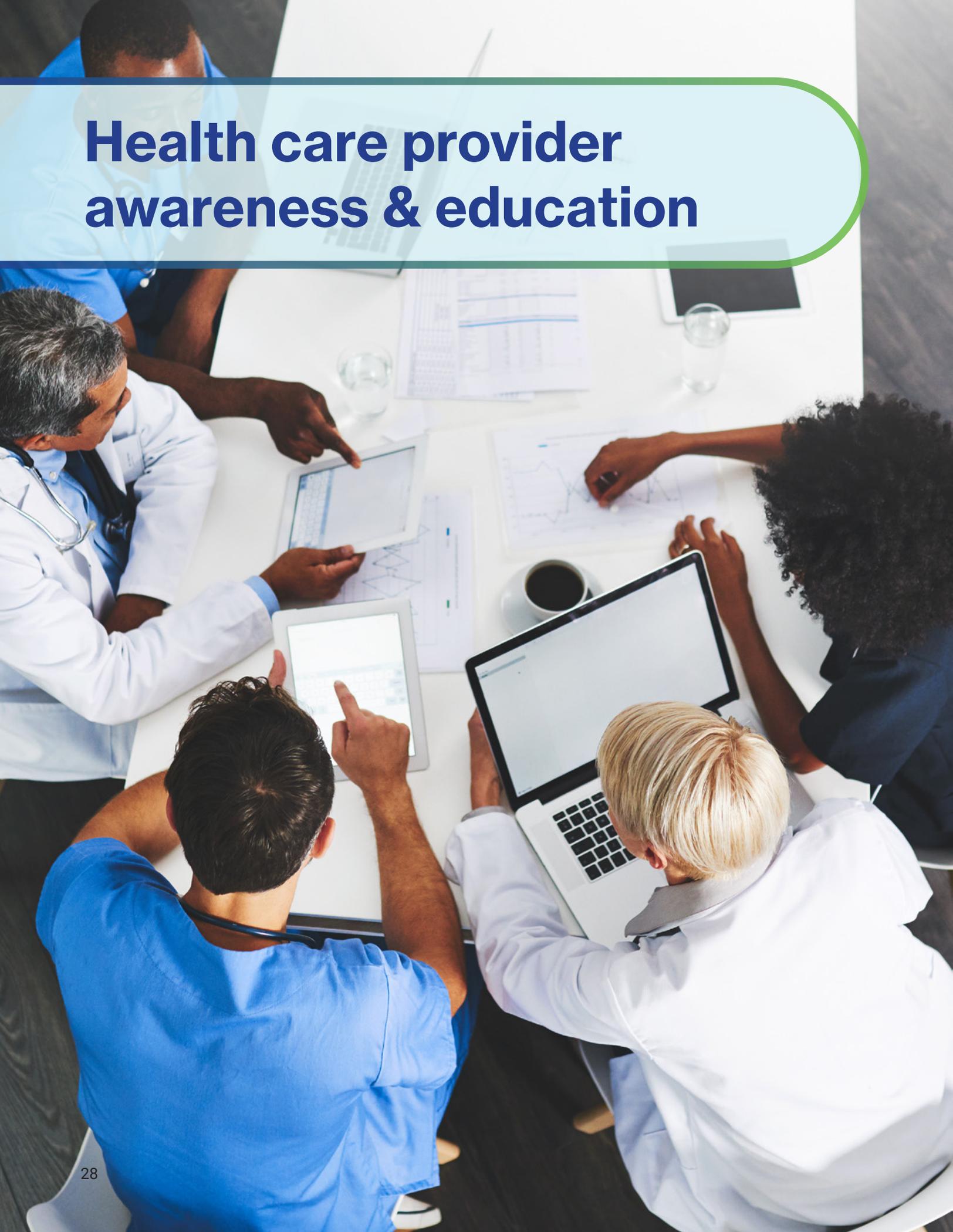
Social media reach

This year again, our Facebook, Twitter/X and LinkedIn platforms served as key tools for engaging with our audience, whether it be members of the public, researchers or health care professionals. Network updates, research findings, deprescribing tools, news pertaining to medication appropriateness, and public events have been shared with followers on these platforms!

An important goal for 2023 was to grow the network's online presence. This was a success, with significant increases in our reach achieved on Facebook, LinkedIn and Twitter compared with the prior year. We are eager to continue to extend our online presence in 2024, and have much in store for our followers. Join in the conversation and follow us on social media!



Health care provider awareness & education



Knowledge mobilization campaign on a first curricular framework for deprescribing

In 2023-2024, the network continued to work on reducing barriers that affect health care providers' motivation, accessibility and capacity to deprescribe risky medications and prevent medication overload for their patients. This included increasing awareness and knowledge, as well as promoting tools and resources to support them throughout this important process, to make prescribing more collaborative, and safe, for everyone.

In the winter of 2023, the network's Health Care Provider Committee, led by co-chairs Dr. Barb Farrell, Dr. Lalitha Raman-Wilms and member Dr. Cheryl Sadowski, published the [first framework for deprescribing education for medicine, pharmacy and nursing entry-to-practice programs](#).

Why a framework?

Through the development and implementation of evidence-based guidelines and feedback from clinicians and educators nationally and internationally, we learned that the development of a curricular framework was critical if we wanted to guide knowledge translation and increase clinician capacity in appropriate use of medications through deprescribing.

What is the objective of the framework?

This framework describes essential knowledge and skills, teaching strategies, and assessment approaches to promote interprofessional deprescribing in collaboration with patients and/or their family and care partners. It also provides guidance for educators to systematically integrate deprescribing knowledge and skills into their teaching and clinical practices.

What is included in the framework?

1. Deprescribing competencies

The framework includes seven deprescribing competencies that are relevant for medicine, pharmacy and nursing students. The knowledge and skills that learners completing their entry-to-practice degrees need in order to be able to perform the competencies successfully are outlined.

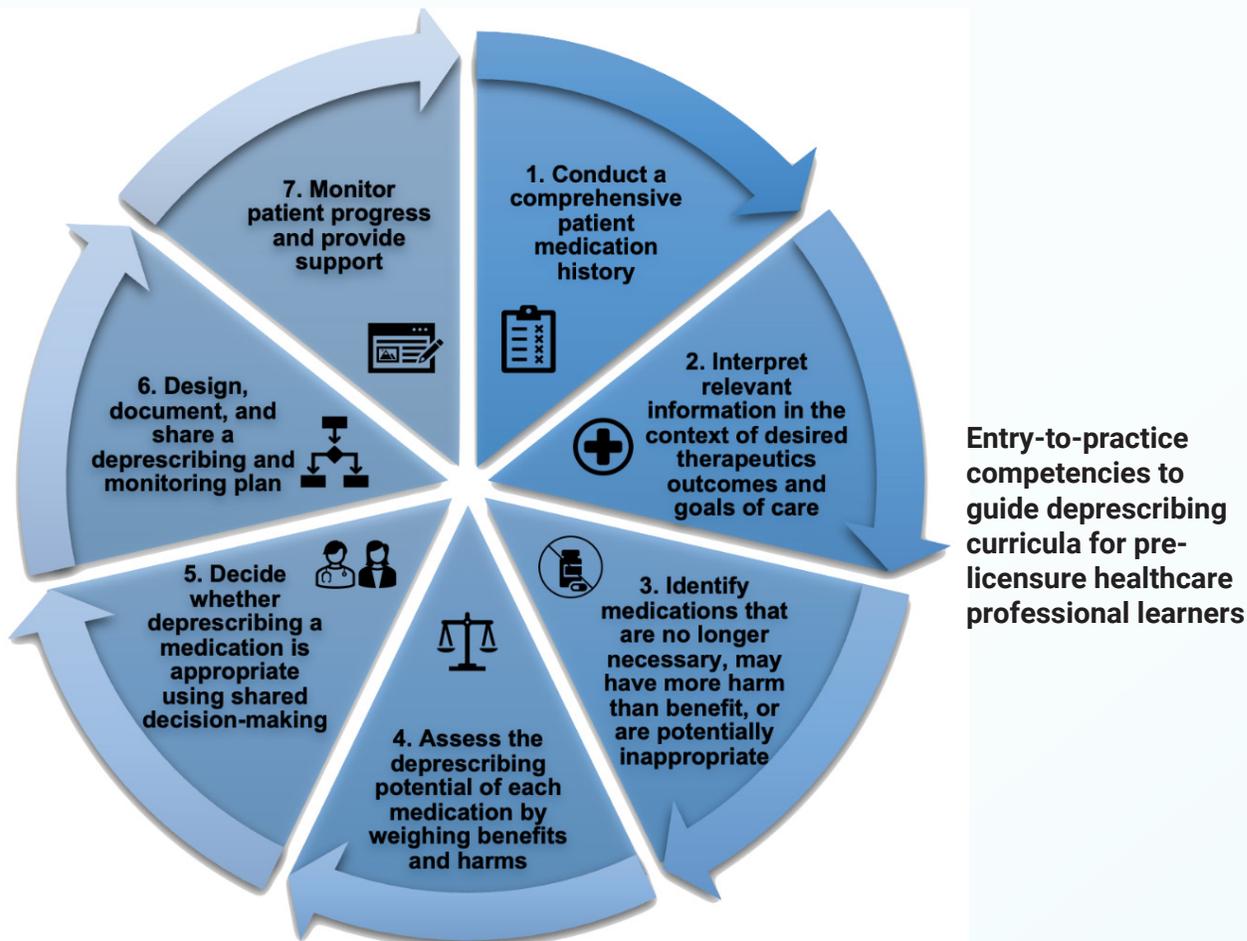
2. Teaching and assessment strategies

Deprescribing should be included early, midway, and late within programs as well as at various levels of complexity, depending on the professional role. The framework proposes learning outcomes, examples of teaching and learning activities, and examples of assessment strategies that can be integrated throughout the curriculum in a sequential manner.

3. Deprescribing resources toolkit

The framework includes a toolkit of practical deprescribing resources for curricular and experiential education, and an appendix to guide curricular planning.





The knowledge mobilization campaign

Developing a quality reference document isn't enough. The rich information such a document provides must make its way into the hands of those who can use it, taking it from knowledge to action. This is the goal driving the CADeN Health Care Provider Committee as they've led this knowledge mobilization campaign to help curriculum developers, educators, and preceptors from different professions across the country and abroad familiarize themselves with the framework, and use it to integrate deprescribing knowledge and skills into their teaching and clinical practice. To help us engage with the many relevant audiences for this work, a [page on the framework was added to the CADeN website](#), and a handout with key points was developed for distribution at healthcare professional events. This resource was also shared on our social media channels. **As of March 2024, these efforts have led to more than 5,000 accesses for this paper, ranking it in the top 6% of articles published over a similar timeline across all scientific journals.**

Deprescribing: What Essential Knowledge and Skills Are Needed, and How Can This Be Integrated to Current Teaching and Assessment Practices? A Proposed Curricular Framework

What is Deprescribing?
Deprescribing is a patient centred, planned, and supervised process of dose reduction or stopping of a medication that may be causing harm or no longer be of benefit.

Who is the Framework For?
This framework is for educators and preceptors in the health professions, especially those in medicine, pharmacy, and nursing involved in the design and delivery of entry-to-practice (pre-licensure) programs and organizations that accredit these.

Gaps in Current Deprescribing Education

- Implementation of deprescribing education concepts in undergraduate programs is inconsistent and non-standardized.
- Learners continue to express low confidence and self-efficacy for deprescribing.

To fill these gaps, the Canadian Medication Appropriateness and Deprescribing Network Health Care Provider Committee determined that an educational framework was needed

What Are the Objectives of the Framework?
The framework objectives are to:

- Describe essential knowledge and skills required to develop competence in deprescribing.
- Enable educators to systematically integrate deprescribing knowledge and skills into their teaching and assessment practices.

Read the Full Article
Farrell, B., Raman-Wilms, L., Sadowski, C.A. et al. A Proposed Curricular Framework for an Interprofessional Approach to Deprescribing. *Med.Sci.Educ.* (2023). doi: 10.1007/s40670-022-01704-9

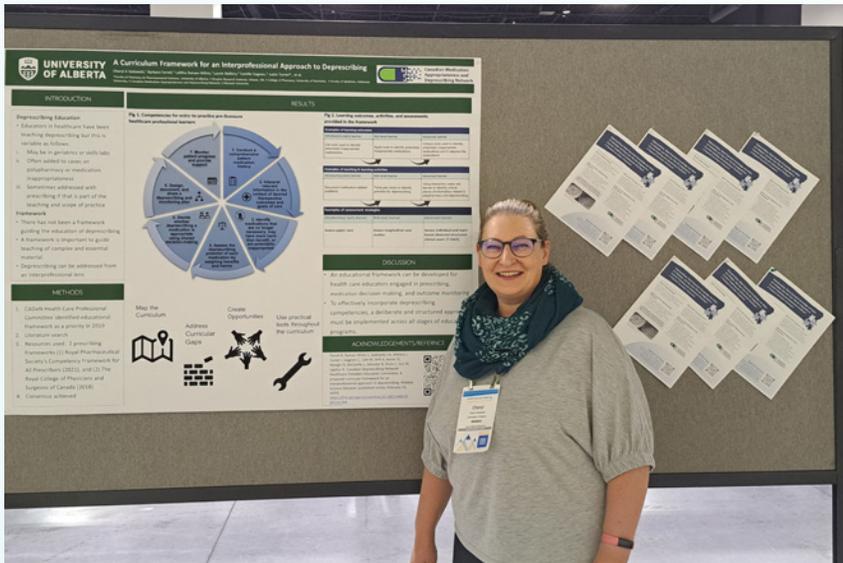
Handout on the deprescribing curricular framework which was distributed at events across North America

Completed and upcoming knowledge mobilization activities for deprescribing curricular framework

Activity	Event/Location
Booth at healthcare professional events in partnership with deprescribing.org	<ul style="list-style-type: none"> • Choosing Wisely Canada National Meeting (Toronto, Ontario) • Canadian Society of Internal Medicine Annual Meeting (Quebec City, Quebec) • Canadian Association of Gerontology Annual Scientific and Educational Meeting (Toronto, Ontario) • Family Medicine Forum (Montréal, Quebec) • Canadian Association of Schools of Nursing Biennial Conference (Calgary, Alberta) - <i>upcoming spring 2024</i>
Scientific poster presentations	<ul style="list-style-type: none"> • American Association of Colleges of Pharmacy Annual Meeting (Colorado, USA) • Canadian Association of Gerontology Annual Scientific and Educational Meeting (Toronto, Ontario) • American Geriatrics Society Annual Meeting (California, USA) • US Deprescribing Network Annual Meeting (California, USA)
Oral presentations	<ul style="list-style-type: none"> • WeRPN (Registered Practical Nurses of Ontario) (Scarborough, Ontario) • Canadian Association of Schools of Nursing Biennial Conference (Calgary, Alberta) - <i>upcoming spring 2024</i>
Workshop	<ul style="list-style-type: none"> • Canadian Pharmacy Education and Research Conference (Winnipeg, Manitoba) • International Congress on Academic Medicine (Vancouver, British Columbia) - <i>upcoming spring 2024</i> • Canadian Geriatrics Society Scientific Meeting (Calgary, Alberta) - <i>upcoming spring 2024</i>
Webinar sessions	<ul style="list-style-type: none"> • Follow-up with Association of Faculties of Pharmacy Conference workshop participants (online) • International Deprescribing Journal Club (view recording here)
Publication of commentary	<ul style="list-style-type: none"> • Canadian Pharmacists Journal (May/June 2024 edition - read publication here)

What's next?

The committee intends to continue rolling out this knowledge mobilization campaign over the upcoming year, and has plans to evaluate its impact as well. The group has already started to collect survey data from workshops and webinars, and has put in place a mechanism for following up with participants to assess whether and how the information was used.



Committee member Cheryl Sadowski presenting the deprescribing curricular framework during a poster session at the American Association of Colleges of Pharmacy Annual Meeting in Aurora, Colorado

Health Care Provider committee members Drs. Jennifer Isenor, Barb Farrell, Cheryl Sadowski and Lalitha Raman-Wilms led a workshop at the Canadian Pharmacy Education and Research Conference in Winnipeg, Manitoba



CADeN members, including members of the deprescribing.org and Sleepwell research teams, shared evidence-based deprescribing tools with health care providers at several events across the country. In this photo, Drs. Barb Farrell, Lisa McCarthy, and David Gardner display their resources at Family Medicine Forum, in Montréal, Quebec

Integration of deprescribing in the culture of long-term care homes in Ontario

In partnership with the Ontario Centres for Learning, Research and Innovation based at the Bruyère Institute, the Deprescribing in Ontario long-term care (LTC) initiative continued its efforts to integrate deprescribing into the care culture of LTC homes. This work is led by Dr. Lisa McCarthy of [deprescribing.org](#) and involves network members Drs. Wade Thompson, Lalitha-Raman Wilms, and Barb Farrell. The team published a [paper](#) describing members' experiences interacting with the initiative. They also introduced the [resources developed to support shared decision making](#) around medications through numerous presentations to clinician and public audiences, and [implemented them in LTC homes](#). A [new tool](#) has been co-designed about who families can approach in LTC homes with their questions about residents' medications.

[Learn more about this initiative here.](#)

Development of continuing education programs

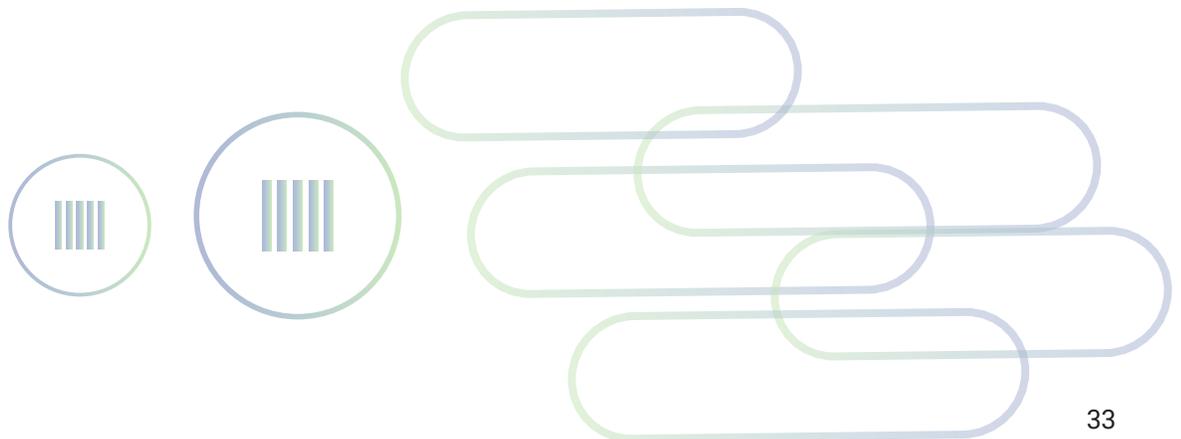
A new online deprescribing education program



The *Optimizing Therapy Through Collaboration* (OPTx) research team in Nova Scotia, led by Dr. Jennifer Isenor and Dr. Natalie Kennie-Kaulbach, is currently developing an online interprofessional deprescribing education program for primary health care providers and healthcare professional students in the Maritimes. The program aims to support a shared understanding of deprescribing tasks and clarification of health care

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-centred, evidence-informed deprescribing process and includes written and audio content, patient and health care provider videos, a simulated patient case, self-assessment, and interactive activities. Stay tuned... the program is expected to be available in 2024! A manuscript has been published about the process of developing the program.

[Click here to read the manuscript.](#)



A new continuing education module on pharmacogeriatrics

In partnership with the Faculty of Pharmacy of the University of Montréal and the Montréal University Geriatrics Institute, in 2023 the network launched [a new online educational module on medication assessment in geriatrics for health care professionals](#). The course is geared towards pharmacists, family physicians and nurse practitioners and offers 9 hours of original content including interactive activities, animations and interviews with experts and champions in this field. After completing the module, learners should have increased knowledge and skills to:



1. Apply a structured method to conduct a complete medication review with their elderly patients.



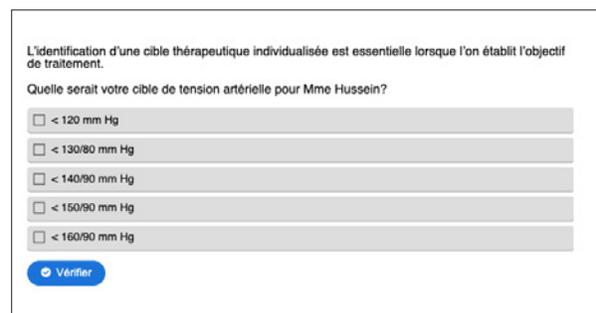
2. Develop a care plan to optimize their elderly patients' medications and integrate non-pharmacological strategies adapted to their needs.



3. Identify factors that support effective interprofessional collaboration to monitor their elderly patients' medications.

93 learners have subscribed to the module, which is, to date, only available in French. The team who developed the module, led by CADeN member Louise Papillon-Ferland, assistant clinical professor at the Faculty of Pharmacy of the University of Montréal, aims to evaluate its effectiveness in increasing learners' knowledge and self efficacy. This project received funding from the Bourse des alliés of the Faculty of Pharmacy and the Michel Saucier Chair in Pharmacy, Health and Aging at Université de Montréal.

[Click here to learn more about this module or to register.](#)



The online continuing education module on pharmacogeriatrics includes interactive activities, animations, and interviews with experts.

Research



Medication appropriateness and deprescribing research continued to gain momentum in 2023-2024. New collaborations emerged between researchers, research centers, members of the public and health care professionals, while existing collaborations continued developing, testing and evaluating interventions that promote medication appropriateness. The network’s community of research affiliates continued to grow, with now more than 60 researchers who are members of this community. The following section presents research in different spheres, such as health care, technology and policy.

Clinical trials

Dialing diabetes care in long-term care homes

The DIAL program, funded by the Canadian Institutes of Health Research, is partnering with residents, caregivers, and long-term care (LTC) providers to study how we can “dial” diabetes care to align with evidence-based recommendations throughout Canada’s LTC community. Led by Drs. Lisa McCarthy, Wade Thompson, and Iliana Lega, in partnership with investigators and key organizations including CADeN, DIAL aims to make residents feel better, spend less time in hospital, and enjoy other things—like a favourite snack or visits with family.

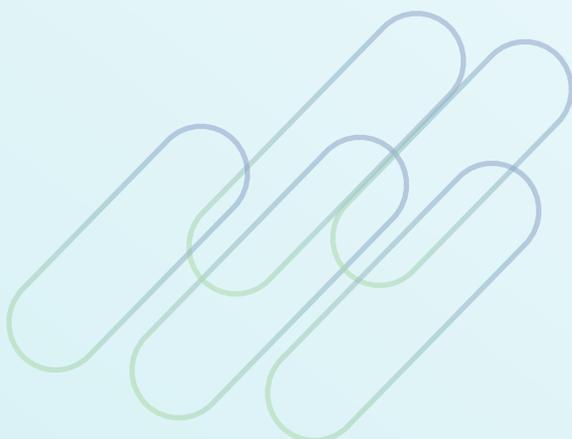
[Learn more about DIAL here](#)

Phases + Key Objectives

PHASE 1 Administrative data (ICES) studies	• Examine contemporary patterns of diabetes care and deintensification
PHASE 2 Resident + caregiver interviews	• Understand perspectives and preferences re: diabetes management including deintensification
PHASE 3 Deintensification Intervention	• Co-design, implement and evaluate a deintensification intervention in one LTC home

Deintensifying Diabetes Management for Older Adults in Long-Term Care (DIAL)

DIAL kick-off meeting, June 20th 2023



OptimizeBP: Deprescribing antihypertensives in long-term care facilities

OptimizeBP is an antihypertensive deprescribing pragmatic randomized controlled trial led by Dr. Roni Kraut, evaluating clinical outcomes of deprescribing antihypertensives in long-term care facilities in Alberta. The primary outcome of the trial is time to mortality, and secondary outcomes include hospitalizations/emergency visits, falls, skin ulcers, kidney function, cognitive/behaviour outcomes and cost. Deprescribing is being completed by facility pharmacists and nurse practitioners. Recruitment is almost complete: almost 400 residents in 18 long-term care facilities are participating in the trial, which includes most long-term care operators and pharmacy providers in Alberta. The protocol is expected to be published in 2024, select process outcomes in late 2024, and final outcomes in 2025.

[Learn more about OptimizeBP here.](#)



Technology-driven deprescribing: MedSafer's patient-centric approach



MedSafer

In their ongoing commitment to advancing deprescribing interventions, Dr. Emily McDonald, scientific director of the network, and Dr. Todd Lee, associate professor of Medicine, McGill University, have spearheaded new patient-centered developments to the software MedSafer. MedSafer is a

Canadian-made electronic decision support tool that guides health care providers through safe and effective deprescribing. A previous cluster randomized controlled trial, published in *JAMA Internal Medicine* (January 2022), found that MedSafer was safe and effective when used for deprescribing in hospitalized patients. The study found a 22% increase in deprescribing compared to usual care (medication reviews). Not only does MedSafer provide a deprescribing roadmap to health care providers, it links to patient brochures for certain classes of medications like acid blockers and sleeping pills. Patient brochures have emerged as a potent deprescribing intervention, directly engaging patients with insights on medication risks, discussions on deprescribing, and tapering regimes to encourage patient-initiated deprescribing. Building on the successes of MedSafer and the potential of patient-facing interventions, a novel iteration of MedSafer has been introduced with a brand new patient-facing portal. This empowers older adults and/or their caregivers to independently generate deprescribing reports for prescriber discussions. Through a secure web-based portal, users input medication details, which are cross-referenced with MedSafer algorithms, generating personalized deprescribing reports accessible to prescribers. MedSafer enhances collaborative health care decisions, ensuring safer and more informed deprescribing practices. Future studies will explore its effectiveness and acceptance among older adults and prescribers in practice. This work was made possible through funding from Health Canada.

[Find out more about MedSafer.](#)

Deprescribing in patients on hemodialysis: a prospective, controlled, quality improvement MedSafer study

Patients on dialysis are commonly prescribed multiple medications, some of which are potentially inappropriate medications (PIMs). PIMs can increase a patient's pill burden and risk of harm, such as falls, fractures, and hospitalization. This study, led by nurse clinician and PhD candidate Emilie Bortolussi-Courval and Dr. Emily McDonald, scientific director of CADeN, aimed to determine if a quality improvement intervention on the dialysis unit could increase deprescribing compared to usual care. The study took place on two outpatient hemodialysis units where nurses and nephrologists performed regular medication reviews twice a year. The intervention was a deprescribing report that was generated with the help of the MedSafer software tool, along with brochures for patients with information on PIMs they were taking. On the intervention unit, the number of patients who had a medication safely deprescribed increased by 36.6% more than on the control unit. A future, larger study in dialysis patients could show that a computer software like MedSafer might prevent harmful complications from PIMs.

[Read the publication here.](#)



ActionADE: Connecting health information systems to prevent adverse drug events

One in nine emergency department admissions are due to adverse drug events, with one third of these admissions being a result of patients being re-prescribed a previously harmful medication. These repeat admissions happen because reporting systems in hospital Emergency Departments can't transfer the information directly to prescribers in the community, who may then unknowingly re-prescribe the same harmful drug.

Researchers at the University of British Columbia, led by Dr. Corinne Hohl, have created ActionADE – a software that enables rapid entry and sharing of specific adverse drug event information from the hospital Emergency Department to community pharmacies, thus avoiding prescriptions for harmful drugs being re-dispensed. While the evaluation of ActionADE is still in progress, preliminary data are exciting! Specific drugs and classes are being identified that cause frequent and/or severe harms. ActionADE shows that connecting hospital Emergency Departments with community pharmacies prevents repeat adverse drug events and hospital readmissions.

[Learn more about ActionADE.](#)

“

“I jumped at the chance to be a public member on the ActionADE research team. Our systems don't connect to each other. Preventing a known harm from happening a second (and sometimes third!) time by connecting information is the definition of “low-hanging fruit!”.

”

Johanna Trimble

Patient partner of ActionADE and member of CADeN's Public Awareness Committee (photo on right)



Sleepwell: a research & knowledge mobilization program



Sleepwell aims to help Canadians get a good night's sleep without sleeping pills. Based on the best available research, Sleepwell provides information and recommends specific programs, tools, and resources for treating insomnia. Sleepwell was co-developed by CADeN Executive members Drs. David Gardner (professor, Department of Psychiatry) and Andrea Murphy (associate professor, College of Pharmacy) of Dalhousie University, Halifax.

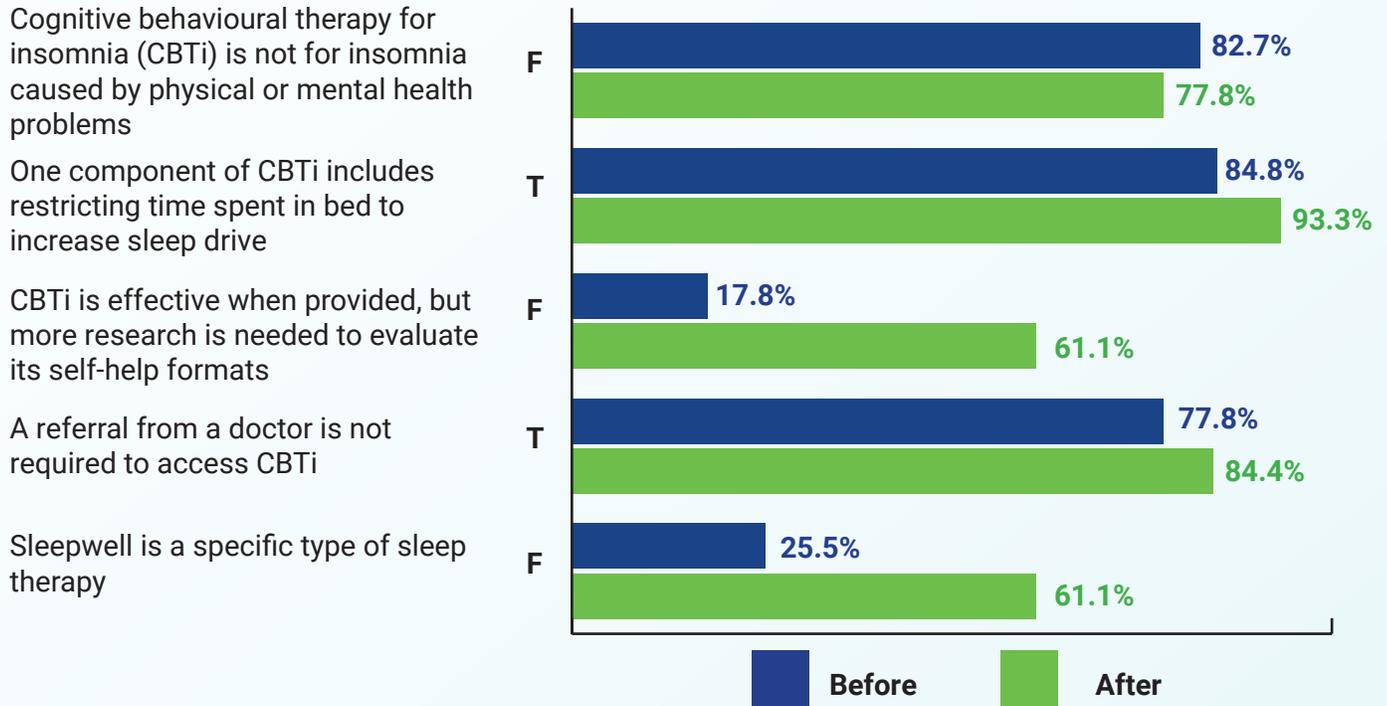
The Sleepwell team has been busy over the past several months. In November 2023, the team hosted a webinar entitled "How to get a good night's sleep ... without sleeping pills." Nearly 350 Canadians attended the webinar from across the country. The recording of the event is available on mysleepwell.ca.

A screenshot of the Sleepwell website's webinar recording player. The player has a dark header with the "my Sleepwell.ca" logo on the left and navigation links for "Insomnia", "Sleeping Pills", "CBTi", "Sleepwell Recommends", "Training", and "FR" on the right. Below the header, a text box reads: "Watch the webinar, recorded on November 27, 2023, to learn about how you can use Sleepwell's tools, resources, and recommendations to get a better night's sleep without sleeping pills." The main video area shows a man with a grey beard sleeping peacefully in a bed with white linens. A red play button is centered over the video. Text overlaid on the video reads "CBTi Sleep Therapy that's better than sleeping pills". At the bottom of the video frame, it says "Cognitive behavioural therapy for insomnia = CBTi = sleep therapy". A "Watch on YouTube" button is in the bottom left corner of the video frame. A "Share" icon is in the top right corner of the video frame.

Recording of the webinar on the Sleepwell website (mysleepwell.ca)

Attendees were surveyed using 10 questions about sleeping pills and sleep therapy (CBTi) before and after the event. Correct answers increased from 60.3% before to 79.1% after the event (see figure on following page). Over 90% indicated that they intend to use Sleepwell's tools, resources, and recommendations in the future, and 85% said that they plan to recommend Sleepwell to others.

Survey questions: before (n=266) and after (n=126) attending the Sleepwell webinar



Several enhancements to the Sleepwell website have also been completed recently. Two new videos share stories of individuals stopping sleeping pills after decades of use, and what they did to get their sleep back. A new resource, “[10 Tips for Better Sleep](#),” was developed to help Canadians take advantage of all five components of CBTi, the first-line recommended treatment for insomnia. Other updates include a new webpage on sleep numbers, a complete update to the curated list of CBTi research, and an update to the CBTi vs. Sleeping Pills 1-page comparison. In January 2024, *Mieux dormir*, the French version of Sleepwell was launched (mieux-dormir.ca). Most of the content has now been translated with more to come.

More recently, Sleepwell hosted two virtual sessions, in which 25 Canadians from across the country gave their feedback on a new resource under development featuring Sleepwell’s Simplified Sleep Therapy Program. Participants also gave feedback on other information and resources available at mysleepwell.ca. Overall, feedback was very positive and offered constructive “roses and thorns”.

What’s next for Sleepwell:

- Completing the French translation
- More CBTi resources for health care providers
- An update to Sleepwell Recommends



Mieux-dormir.ca is now available for French-speaking individuals seeking resources to improve sleep and reduce reliance on sleeping pills

[Learn more about Sleepwell here.](#)

GABA-WHY: An intervention to reduce gabapentinoids in hospitalized patients

Gabapentinoid prescriptions have soared in the past decade in Canada. This rise has been largely driven by off-label use for chronic pain conditions, [even if clinical trials show high risks and limited benefits for patients taking gabapentinoids in these contexts](#). There is a need for resources to help patients and clinicians discuss gabapentinoid medications, to assess if they are working, if they may be causing harm, and if they could be deprescribed, to reduce risks and medication burden without worsening pain and quality of life. With this goal in mind, the GABA-WHY trial team assessed the impact of an educational intervention to promote the deprescribing of gabapentinoids in hospitalized patients. Led by principal investigator Dr. Marc-Alexandre Gingras, the study compared usual care with receipt of a direct-to-consumer educational brochure to see if deprescribing gabapentinoids could be increased following an acute care hospitalization. Over the past two years, 160 patients volunteered to participate in the study at the McGill University Health Centre, in Montréal, Quebec. Publication of the final results are coming in 2024.

[Read the GABA-WHY protocol here.](#)

Important funding application for a deprescribing trial



Research affiliates of CADeN applied to the [Canadian Institutes for Health Research Project Grant Program](#) for funding for a large deprescribing trial to be held in five provinces with the goal of reducing sedative hypnotics. The application brought together over 40 researchers, clinicians, patient partners, and policy makers who collectively identified the need for a trial to evaluate scalable direct-to-consumer interventions to reduce prescriptions of sedative hypnotics in older Canadians. Stay tuned for results of the competition, coming this summer!



Accelerating Clinical Trials supports deprescribing research



In 2023, the network was fortunate to join the Accelerating Clinical Trials (ACT) Consortium. ACT was established to facilitate, optimize, and accelerate the conduct, implementation, and result translation from high-quality, high-impact randomized controlled trials to improve health in Canada and around the world. Dr. Emily McDonald, scientific director of the network, is an active member of

the ACT Operations Committee, and co-chair of the ACT Communications Working Group. Dr. McDonald helped lead a national campaign to educate Canadians about the importance of clinical trials. To find and learn about a clinical trial near you, visit [BetheCure.ca](https://www.bethecure.ca).



Dr. Mohammad Rafaei

As a member of the ACT Consortium, the network endorsed [Dr. Mohammad Rafaei](#) from Niagara Health, who successfully received funding from ACT. Niagara Health has actively participated in deprescribing studies, achieving Leadership status from Choosing Wisely Canada through its successful deprescribing initiatives, including targeting proton pump inhibitors, post-operative opioids, and reducing inappropriate use of red cell products. This grant from ACT will support the development of new clinical research programs at Niagara Health. In the long term, Niagara Health aims to continue collaborating with the network to attract further research to their sites.



Deprescribing guidelines

Upcoming statin guidelines



Dr. Wade Thompson (network executive member) is leading the development of an evidence-based statin deprescribing guideline with a panel composed of experienced clinicians, researchers and patient representatives, including Dr. Lisa McCarthy (network executive member). This deprescribing guideline and its resultant tools (e.g., the deprescribing algorithm) will support health care providers and patients in making decisions around ongoing statin use. All resources will be available globally at deprescribing.org. The project was spearheaded by Dr. Lise Bjerre with the support of a Ministry of Health Innovation Fund grant, and completion of the project is being supported by Health Canada. A draft guideline for public consultation is expected in Spring/Summer 2024.

A new online repository to facilitate collaboration between guideline developers



At the end of 2023, a Deprescribing Guidelines Repository (DEPOT) was launched. DEPOT is a public-facing international platform where guideline developers may register their deprescribing guidelines, whether completed or in development, and connect with other developers around the world. This platform will facilitate communication and collaboration between researchers working in this area.

[Learn more about DEPOT here.](#)



Statin Deprescribing Guideline Expert Team Meeting

Evidence reviews

What works and what doesn't for policies promoting medication appropriateness: a rapid review



Policies that promote appropriate medication use have been implemented in various countries around the world, with inconsistent impacts. Some policies have reduced costs and improved patient- and system-level outcomes, while others have been less successful. To help Canadian decision-makers learn from and apply international evidence to the design of new and innovative policies, CAdEN members, including Dr. Mathieu Charbonneau (post-doctoral student), Dr. Jim Silvius (executive director), and Dr. Justin Turner (international consultant) conducted a rapid realist review to identify contextual factors and mechanisms that support successful system-level policies promoting appropriate medication use in high-income countries.

Published in February 2024 in *Health Policy, Factors influencing the effects of policies and interventions to promote the appropriate use of medicines in high-income countries: A rapid realist review* identified 18 relevant papers covering 13 different policies. The following three factors were identified by the research team as being associated with success:

- Patient and provider involvement;
- Central coordination through national agencies dedicated to medicine policies, and
- Establishment of an explicit and integrated medicine policy strategy.

[Learn more by reading the publication here.](#)

A scoping review of deprescribing communication tools

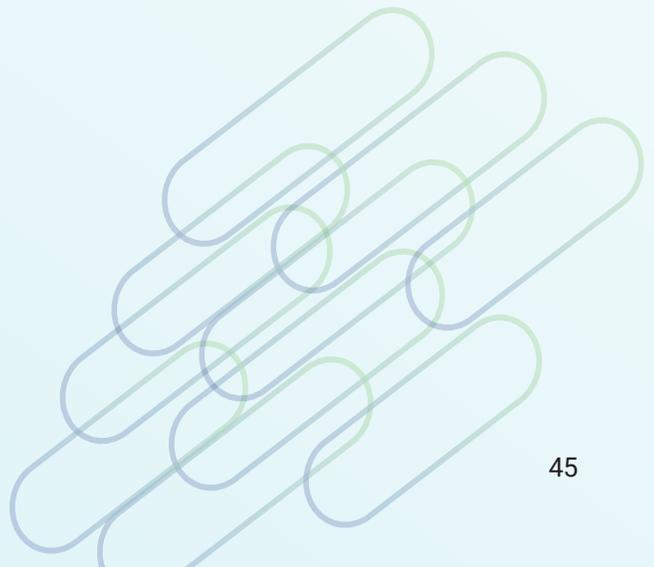


The *Optimizing Therapy Through Collaboration* (OPTx) research team, led by Drs. Jennifer Isenor and Natalie Kennie-Kaulbach in Nova Scotia, supervised a scoping review of published studies that have used tools to aid patients and health care providers in communicating around deprescribing. The review was conducted by Research in Medicine student Bridgette Chan. Forty unique tools were found from various countries for use in different health care settings (e.g., primary care, tertiary care), and for various age groups, although over one-third were focused on care of older adults living in the community.

[Read the paper here.](#)



[@OPTx_Team](#)



Students



Building a network of students championing medication appropriateness and deprescribing

Having garnered a considerable network of deprescribing experts over the years, the network extended its network towards the future generation of health care providers and deprescribing experts in 2023. [A new webpage](#) was created for students and trainees in medicine, pharmacy, nursing, public health or other health-related fields, with the aim of supporting the next generation of experts and health care professionals with knowledge and tools to promote deprescribing in their current and future endeavors. This webpage serves as a hub for students and trainees seeking resources, wishing to get involved with the network or to get in touch with other experts in the field. Ideas for internships or quality improvement projects are showcased on the webpage, alongside examples of previous students and trainees' projects with CADeN.

Students who join the network take part in valuable opportunities to contribute to medication appropriateness and deprescribing initiatives in Canada! Here are some of the students who worked with the network this past year:

Marie-Kim Lacoste

Marie-Kim Lacoste, a final-year pharmacy student from the Université de Montréal, created the student and trainee webpage for the CADeN website and shared the page widely with medical, pharmacy, nursing and public health student associations.



**Marie-Kim Lacoste, pharmacy student
from Université de Montréal**

Émilie Bortolussi-Courval

Émilie Bortolussi-Courval, a PhD candidate in the Department of Experimental Medicine at McGill University, led research on MedSafer, an electronic, deprescribing decision-support tool, and its integration into Quebec health systems. Findings from her research were presented - and awarded third place—at CADeN's 2023 National Meeting. She was awarded the First Jury Prize at the ACFAS *Génies en affaires* competition for her work, along with colleagues Gregory Gooding, from McGill University, and Sara Bortolussi-Courval, from University of British Columbia. Finally, she received the [“Innovative Practice” title from Profession Santé](#) for her commitment to championing teamwork and collaboration around deprescribing.



PhD candidate Emilie Bortolussi-Courval (center) with MedSafer colleagues Gregory Gooding and Sara Bortolussi-Courval

Tania Morin

Tania Morin, a medical student at McGill University, has been leading a research project in collaboration with network pharmacists, an internist, and medical and pharmacy students. She is conducting a scoping review examining the costs of adverse effects associated with gabapentinoid medications (e.g. pregabalin, gabapentin), particularly among older populations.



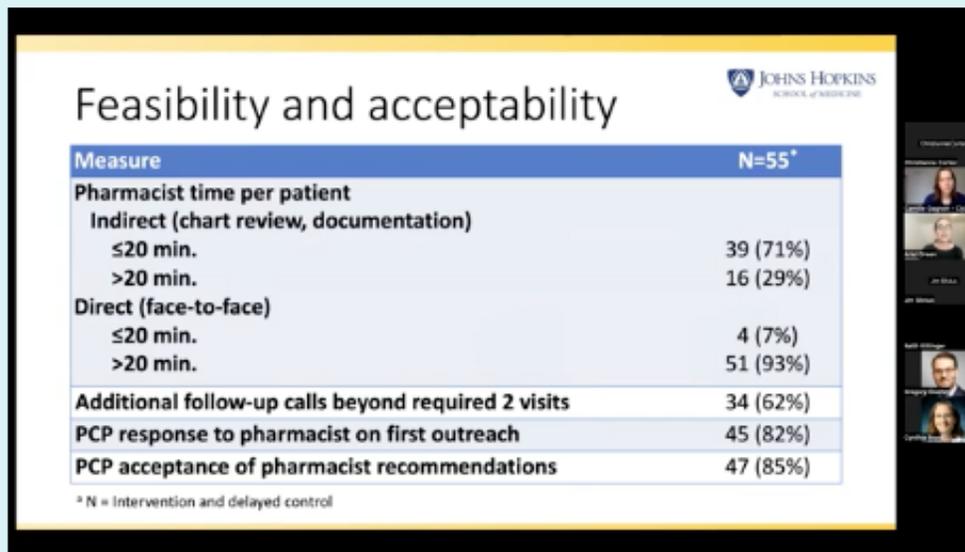
Tania Morin, medical student at McGill University

International presence



International Deprescribing Journal Club

The network collaborates with international partners (Australian Deprescribing Network, European Society of Clinical Pharmacists, US Deprescribing Research Network, Network of European Researchers in Deprescribing) to organize quarterly journal clubs with the goal of helping clinicians and researchers connect and discuss recent deprescribing publications and complex clinical cases. These have been valuable opportunities to strengthen partnerships among international deprescribing networks and build momentum in deprescribing initiatives around the world. In 2023-2024, four sessions were organized, with an average participation of 50 participants from all around the world. Deprescribing topics varied and included deprescribing cascades, stopping proton pump inhibitors, and optimizing medications of frail patients. Access the list of previous sessions', speakers, and topics, and [catch up on past sessions here](#).



Measure	N=55*
Pharmacist time per patient	
Indirect (chart review, documentation)	
≤20 min.	39 (71%)
>20 min.	16 (29%)
Direct (face-to-face)	
≤20 min.	4 (7%)
>20 min.	51 (93%)
Additional follow-up calls beyond required 2 visits	34 (62%)
PCP response to pharmacist on first outreach	45 (82%)
PCP acceptance of pharmacist recommendations	47 (85%)

* N = Intervention and delayed control



DROPIIT  Schweizerischer Nationalfonds  

Deprescribing potentially inappropriate Proton Pump Inhibitors (PPIs)

Developing an intervention and planning a trial

Kristie Weir BScI, MPH, PhD
Postdoctoral Research Fellow (NHMRC Investigator Grant Emerging Leader)
Sydney School of Public Health, The University of Sydney | Australia
Institute of Primary Health Care (BIHAM), University of Bern | Switzerland

The International Deprescribing Journal Club sessions are attended by researchers and clinicians from around the world

Network tools, resources and presentations around the globe

The network shines beyond borders! This year yet again, network directors and members were invited to present their experiences and inspire others at numerous events. Additionally, organizations worldwide continued to contact us, requesting permission to adapt our tools and resources. This is an exciting opportunity to inspire and equip new audiences, promoting medication safety on all continents!

Adaptation of the “What you need to know about anticholinergic medications” article

Both the NHS Bath and North East Somerset, Swindon and Wiltshire Integrated Care Board, in England, and the Department of Health in Northern Ireland, adapted [an article on anticholinergic medications](#) written by CADeN members and patient safety advocates Johanna Trimble and Janet Currie. The NHS team is now working to translate the leaflet to a range of languages, and make it available nationally.



An NHS adaptation of the CADeN article on anticholinergic medications (England)

CADeN patient brochure on sedative-hypnotics central to a public health campaign in Andalucia

In 2023, the public health authorities of Andalucia, in Spain, launched a significant campaign called “*BENZO STOP JUNTOS : Vivir sin tranquilizantes es posible*” (“together, let’s stop benzodiazepines: living without sedatives is possible”). The goal of the campaign was to raise awareness of the risks of benzodiazepines and other sedatives in both health care professionals and members of the public. The network’s tools were central to this campaign: the *Do I still need this medication?* patient empowerment brochure was translated to Spanish and promoted on social media, TV and radio. [Learn more about the BENZO STOP JUNTOS campaign here.](#)



Adapted patient education brochure on the risks of sedative-hypnotics used as part of the BENZO STOP JUNTOS campaign in Andalucia, Spain

CADeN leadership inspires an Icelandic deprescribing movement

In October 2023, Dr. Emily McDonald, scientific director of CADeN, was in Reykjavik, as keynote speaker for a first Icelandic national deprescribing symposium. The symposium brought together a mix of public, health care and policy stakeholders with a desire to collaborate on a plan to reduce polypharmacy and inappropriate prescribing in Iceland. This event was in part inspired by the approach used in past CADeN summits (in 2016 and 2018). Furthermore, CADeN patient brochures were translated to Icelandic and adopted as part of the World Health Organization Medication Without Harm initiative led by the Directorate of Health.

[Watch Dr. McDonald's keynote talk at the Icelandic national deprescribing symposium.](#)

Presenting at the International Ambulatory Drug Safety Symposium

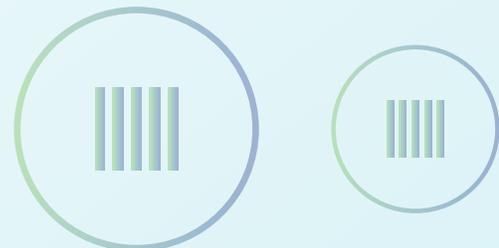
Dr. Emily McDonald, scientific director of CADeN, attended the International Ambulatory Drug Safety Symposium in Munich, Germany, to present the role electronic decision support can play in the promotion of medication safety. A review of select scaled up examples from Canada and Germany offered lessons regarding barriers and facilitators to successful implementation. Other participants presented innovations in observational research, risk prediction and treatment optimization, and interprofessional collaboration, all to improve ambulatory drug safety. [Read the proceedings of the Symposium here.](#)



Dr. Emily McDonald presented the keynote address at the Icelandic national deprescribing symposium

CADeN speakers at the World Congress of Basic and Clinical Pharmacology

Dr. Cara Tannenbaum, co-founder and past director of the network, and Dr. Justin Turner, international consultant and past scientific director of the network, took part in a panel entitled *Deprescribing for older people: International efforts to understand and improve efficacy, safety and implementation* at the 19th World Congress of Basic and Clinical Pharmacology in Glasgow, Scotland. They presented roles, achievements and opportunities for deprescribing networks, and explored how policy makers and academics can partner to reduce inappropriate prescriptions.



What's next?

With funding from Health Canada renewed for 2024-2025, and a strong motivation to advance a pan-Canadian strategy for medication appropriateness in Canada, CADeN members look forward to leading and collaborating on new exciting programs this year, alongside and in partnership with the new Canadian Drug Agency.

Here is just a glimpse of what to look out for:



We will share more patient stories

We will collect testimonials in video and in writing, demonstrating the important consequences medication overload and inappropriate medications have on the public. We will work with community partners to share these stories on different media platforms to increase awareness of this problem and share solutions.



We will make medication safety tools and resources more accessible

Medication safety resources will be translated and adapted to additional languages and to specific patient populations. New deprescribing guidelines are also in the pipeline. Online resources such as Sleepwell and MedSafer will be made available to larger audiences, making critical tools to promote better sleep and safer medication use accessible to more people.



We will begin to Indigenize the network

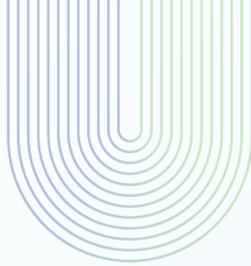
We are developing an implementation plan to decolonize and Indigenize the network based on a 5-year action plan developed by the Indigenization Working Group. We will hold an in-person engagement session in partnership with an Indigenous community to identify what is needed to support appropriate medication use in this community, in order to inform future activities.



We will mobilize stakeholders around deprescribing education

We will continue to roll out a knowledge transfer campaign on the deprescribing curricular framework, to better equip the health care professional educators of tomorrow. Our knowledge transfer campaign will undergo an evaluation, we will measure our impact, and will learn how to make improvements along the way.





We will expand our research network and activities

With the creation of an online community of practice, we will offer more opportunities for researchers and trainees in medication appropriateness to communicate and collaborate across Canada. We have new questions we want to answer and there will be a strong focus on improving resources for equity-deserving populations.

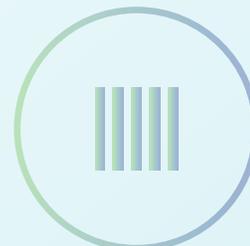
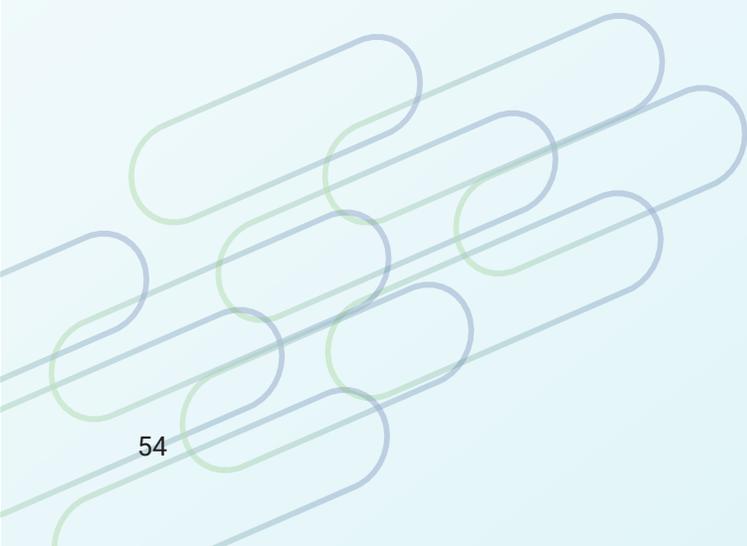


We will make new national and international collaborations flourish

We will continue to co-lead a national coalition of organizations interested in safe and appropriate medication use. On an international level, network members are helping organize the 2nd International Conference on Deprescribing, which will take place in Nantes, France in September 2024.

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

Contact us at info@caden-recad.ca



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