



A Path to Improving Medication Appropriateness in Canada


A final report from the appropriate use advisory committee

2024



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Également disponible en français sous le titre :
Une façon d'améliorer l'utilisation appropriée des médicaments au Canada

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Publication date: June 2024

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Cat.: H22-4/40-2024E-PDF
ISBN: 978-0-660-72403-4
Pub.: 240301



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MESSAGE FROM THE CHAIR


In late 2022, the Canadian Drug Agency Transition Office approached me with an opportunity to chair its inaugural Appropriate Use Advisory Committee, to provide advice on appropriate prescribing and use of medications in Canada. The urgency of addressing medication appropriateness is not always an obvious one; but reflecting on the benefits from better prescribing and use of medications and who it helps, it becomes clear why this now requires our attention. I eagerly accepted the opportunity to contribute.

The appropriate use of prescription medications has the potential to positively impact every health priority that federal, provincial and territorial governments have agreed on tackling to better serve people in Canada. There is also a great deal of shared responsibility when it comes to addressing the consequences of inappropriate medication prescribing and use, so many partners need to be a part of the solution. Still, improving medication appropriateness across the country is no simple task. It takes a driving force, dedicated people, deliberate engagement, as well as sustained collaboration and grit. It is more a marathon than a sprint, and all of it starts with mapping out a plan for everyone to participate in and contribute to, which is the purpose of this document.

The Appropriate Use Advisory Committee first met in March 2023 to share insights on appropriate use in Canada and to map out a forward agenda of discussion topics related to improving medication appropriateness. The committee completed an interim report in summer 2023 and held targeted consultations with many partners to inform the final report. The feedback we received has guided the development of the advice and recommendations for a pan-Canadian appropriate use strategy and corresponding Canadian Drug Agency program presented herein.

Appropriate use was first established as a shared priority among federal, provincial and territorial governments over eight years ago in 2016. In just a little over a year, the advisory committee has developed a blueprint for a pan-Canadian strategy.

On behalf of the Appropriate Use Advisory Committee, I would like to thank everyone who took the time to either attend an engagement session or complete a questionnaire. Your input gave committee members much to reflect on and we are grateful to have had the opportunity to hear your valuable perspectives.



In closing, I would like to also thank every member of the Appropriate Use Advisory Committee for their dedication and contribution to this important work. Thank you to Dr. Jim Silvius, Sudha Kutty, Dr. Wendy Levinson, Ned Pojskic, Chantal Faucher-Francoeur, Julia Bareham, Dr. Stan Marchuk, Dr. Michael Allan, Dr. Danielle Paes, Dr. Ambreen Sayani, Connie Newman, Dr. Dawn Richards and Dr. Cara Tannenbaum (ex-officio member) for your collaborative effort and your commitment to addressing the important issue of appropriate use and improving the health of all people in Canada.

In addition, I and the committee members wish to express our sincere gratitude for the tremendous support and expertise provided by the Canada Drug Agency Transition Office. We could not have done this work without the leadership, hard work and commitment from the committee secretariat. Thank you to Susan Fitzpatrick, Kaireen Patton, Leoma Kwong, Julie Robert, Patrick Wright, Keon Vali, Brent Lawlor and Anne Brassset-Latulippe.

Given the challenges that Canada's health systems have faced over the past few years (the opioid crisis, the COVID-19 pandemic, health human resource challenges, to name a few) we owe it to all people in Canada to strategically address the challenge of appropriate medication use. We simply cannot afford the luxury of waiting. Action is required.

Stephen Samis

Chair, Appropriate Use Advisory Committee



THE APPROPRIATE USE ADVISORY COMMITTEE

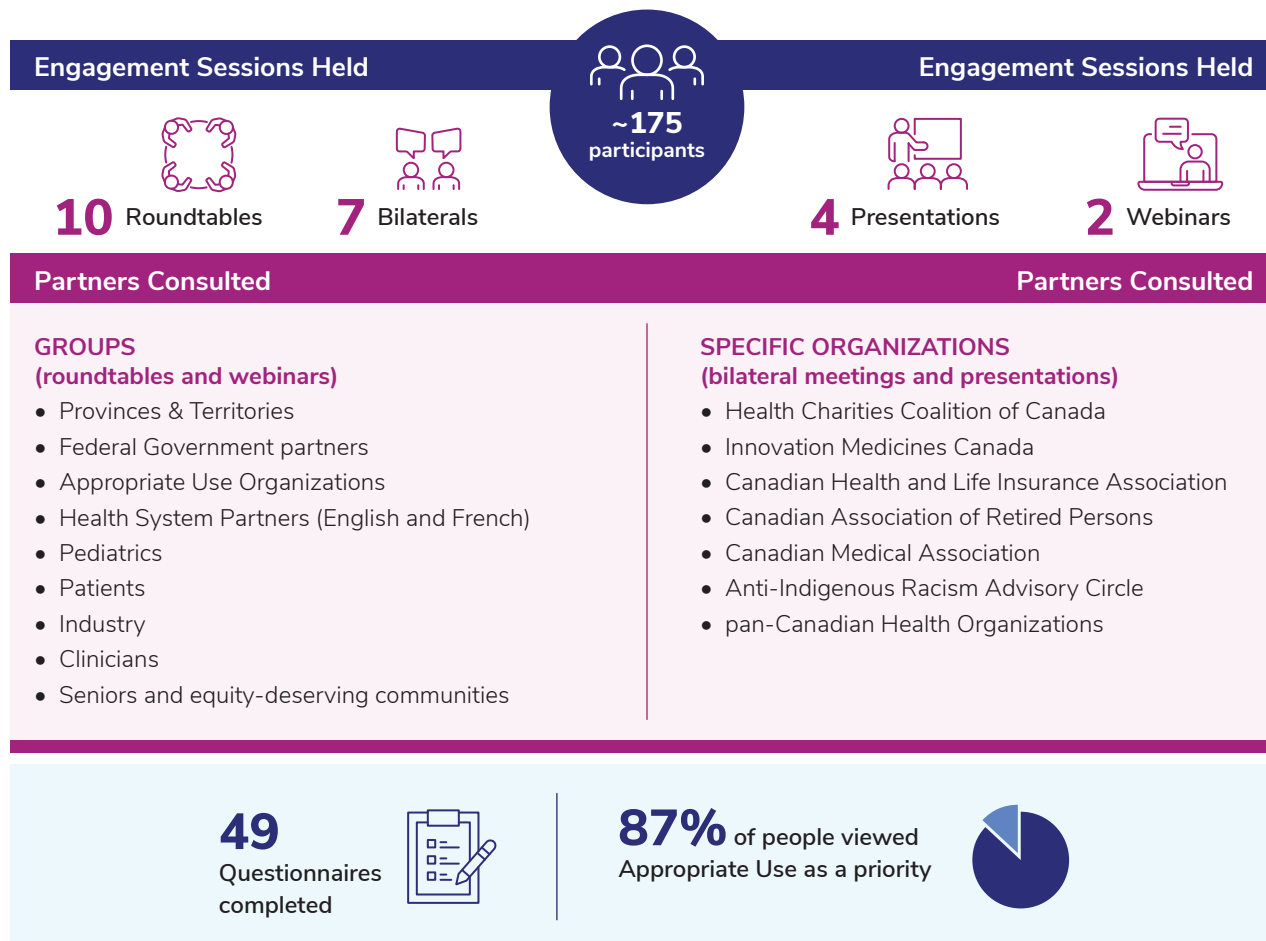
In March 2023, the Canadian Drug Agency Transition Office (CDATO) established the Appropriate Use Advisory Committee (**Annex A**). This resulted from repeatedly hearing the need for better support and coordination for the appropriate use of prescription medications. The advisory committee was tasked with providing guidance and advice on key activities to address appropriate use of medications in Canada. Its mandate included:

1. Supporting the development of a pan-Canadian strategy for medication appropriateness
2. Advising and providing recommendations on the roles and responsibilities of a Canadian Drug Agency (CDA) appropriate use program
3. Developing a forward agenda of early actions and identifying priority areas for the CDA related to the appropriate use of medications

The advisory committee met monthly and completed its interim report in July 2023. The interim report represented early advice to the CDATO on developing a pan-Canadian appropriate use strategy and future appropriate use program for the CDA. The interim report was the focus of targeted consultations, which were held from July to September 2023, to solicit feedback on the committee's early work.

INTERIM REPORT CONSULTATION OVERVIEW

Addressing Appropriate Use
of Prescription Medicines in Canada



During the consultation period, the advisory committee had more than 20 consultation events to discuss the interim report, and included the option to respond via an online questionnaire. Altogether, over 200 participants across Canada shared their views, including patients and people with lived and living experience,¹ physicians, nurses, pharmacists, researchers, health associations, government representatives, industry, and other health care professionals and leaders. Every roundtable, bilateral meeting and questionnaire provided valuable insights for our work. The enthusiasm was incredible, with an overwhelming majority of participants agreeing that appropriate prescribing and appropriate use of medications is a priority.

Key themes from the interim report consultation

The message was clear: appropriate use is an important undertaking. Dedicated leadership is needed to ensure there is consistency, action and accountability to advance appropriate use from every angle.

“This is a highly important initiative [that requires] involving patients and the public to ensure that it is relevant..”

– Patient

1. Emphasize safety and harm reduction

The driver behind appropriateness should be to support the best possible health outcomes. For example, increasing safety by taking the right medications, at the right time for the right reason, at the right doses, for the right duration and only when required. Increasing safety also decreases the risk of harms that can occur when appropriate use does not happen. Other considerations such as system efficiencies, cost savings, and environmental benefits would be additional benefits of appropriate medication use. In addition, what is appropriate for one person might not be appropriate for the next person, so it is important to define the term “appropriateness”. This question was raised on several occasions during the interim report consultations, and it led to the revision of the advisory committee's definition in this final report.

2. Consider issues of access and equity for patients

Inviting people to discuss medication appropriateness often provoked broader questions and comments about access, such as:

- ***What’s the use of talking about appropriate use when I can’t afford the medications prescribed?***
- ***I don’t have a health provider I can get to. Getting me to weigh in on medication appropriateness is out of the question.***
- ***Great, non-drug treatments might be better for my health condition, but they are not covered by my insurance.***

While access and equity issues are not the immediate focus of the appropriate use strategy presented in this report, it is important to acknowledge them. Affordability, coverage and access to care impact access to appropriate treatments and require attention.

3. Provide more details on the plan

A focus on appropriate use received a great deal of support from participants. One questionnaire respondent provided the following simple advice – **Get started!** Others wanted to see more detail about how organizations might contribute to the strategy, as well as specific details about the CDA's appropriate use function. This final report provides more details, with advice and recommendations on the activities the CDA should undertake and the leadership capabilities it should adopt in leading the appropriate use strategy.

4. Provide easy-to-use tools and guidance for health care providers

The issue of health human resource challenges came up frequently during consultations on appropriate use. Many participants spoke of the strain and exhaustion health care workers have faced in recent years. They noted the importance of simple processes and strategies to better integrate new research and evidence into practice that help guide appropriate prescribing. Health care providers, patients and people with lived and living experience asked for easy-to-use tools and trusted information to support their decision making and help improve patient outcomes. This final report acknowledges this important context and reinforces that improvements in medication appropriateness will result in better health outcomes for patients, ultimately reducing the strain on both the health care system and its workers. This report also contains advice on how the CDA can make it easier to disseminate useful tools and information.

“We have to be mindful of the issues confronting health/human resources right now in this country....If they are going to take on [appropriate use] it's got to be simple and easy.”

– Appropriate Use Organization Representative

5. Make the strategy adaptable and open to learning

Many participants talked about how the health system is facing an ever-changing environment:

- Patients and the public demand more engagement on decisions about their health.
- Health care providers are seeing an expansion of prescribing authorities.
- Health insurers have policies to promote sustainable options (e.g., biosimilar switching).
- The health and biosciences sector continues to develop new products and treatments.

Participants noted that the CDA's appropriate use program will need to be based on what is relevant today and evolve with future shifts in the health system. The proposed CDA leadership framework emphasizes spreading and scaling promising approaches and continuously adapting them.

6. Build credibility and trust

Across diverse perspectives, the idea of a pan-Canadian appropriate use strategy with dedicated leadership had staunch support. At the same time, some raised skepticism on the drivers of appropriate use (e.g., as a cost-cutting measure or reducing options for patients). Building trust and credibility with partners is therefore key to mobilizing support and creating change. Participants encouraged the CDA to take time to learn the interests and needs of partners, help partners understand the intent of an appropriate use strategy, demonstrate integrity and capability, and follow through with action and results. These principles are reflected in the advice to the CDA embedded throughout the report.

7. Champion diversity, equity, inclusion and reconciliation in the health system

There is no question that our health system disproportionately underserves and discriminates against certain groups based on a variety of socio-demographic factors, age, disability, gender and gender-identity, sexual orientation as well as race, ethnicity and Indigeneity. Recognizing this has led to the creation of several initiatives aimed at fostering health systems free from racism and discrimination, including one at the pan-Canadian level.² Accelerating equity and justice in health care deserves to be at the forefront of all health initiatives, and appropriate prescribing and use of medications is no exception. We can start by making clear that “appropriateness” is not a one-size-fits all idea. Participants were clear in acknowledging that some current approaches to prescribing and using medications remain embedded in a colonial framework. This leads to prescribing practices and priorities that are not reflective of the needs of racialized and marginalized populations. They also acknowledged that this requires attention if we are to achieve reconciliation with Indigenous Peoples and communities in Canada. To that end, the Appropriate Use Advisory Committee’s advice in the final report underscores that attention and deliberate efforts are needed to improve health equity, cultural safety and the integration of perspectives from equity-deserving populations.

“Other demographics are relevant [to consider] as well as the social determinants of health. One solution will not be appropriate for all groups.”

– Patient

These themes from the interim report consultations have guided the development of advice and recommendations presented in this final report.



OVERVIEW AND RECOMMENDATIONS

Across Canada, there are opportunities to improve medication prescribing and medication use that will drive better outcomes for patients, people with lived and living experience and the broader health system. In this report, the Appropriate Use Advisory Committee provides advice on a common strategy for all partners to endorse, and on the leadership and actions recommended for the CDA to take to advance that strategy. A full list of appropriate use partners and the significance of their participation is referenced in [Annex B](#).

Appropriate use can be defined as taking a medication best suited for a person's needs to provide the greatest possible benefit and avoid potential harm. This report begins with an introduction on appropriate use, what appropriate use entails and how Canada is performing in terms of medication appropriateness. It then presents a set of six guiding principles to help address appropriate use from a pan-Canadian perspective. The strategic vision and mission, with goals and objectives, outline a pathway to guide the many partners needed to improve medication appropriateness in Canada.

The CDA is expected to bring the overall vision into action by working with partners to deliver on five strategic priorities. In addition, the advisory committee recommends eight areas of leadership to the CDA as a framework to bring value to the existing landscape.

List of the Appropriate Use Advisory Committee's Recommendations:

RECOMMENDATION #1

The CDA lead and implement the proposed strategic priorities facilitating the active participation of all partners. CDA should measure and report on progress annually.

In year 1, establish a network of key partners dedicated to advancing the proposed pan-Canadian appropriate use strategy's priorities and convene these partners. CDA should clearly state the actions it will take to support and complement partner efforts.

RECOMMENDATION #2

The CDA act to support the strategic priorities, starting with those that advance collaboration, and report on its progress and success.

In year 1, establish an appropriate use implementation advisory body. This advisory body would inform the implementation of the advisory committee's recommendations as well as future appropriate use priorities, and report progress.

RECOMMENDATION #3

The CDA establish itself as a reputable reference for Canada on appropriate use of medications.

In year 1, begin work on building credibility and relationships. Dedicate resources to liaising with diverse partners and support them in addressing issues and recommendations identified by the advisory committee.

RECOMMENDATION #4

The CDA establish a strong relationship with provinces and territories to build local appropriate use capacity.

In year 1, engage with provincial and territorial governments to identify how the CDA can support them in building their capacity to address appropriate use issues. Together, identify how to act on the advisory committee's recommendations and include patients and people with lived and living experience in those efforts.

RECOMMENDATION #5

The CDA build awareness and understanding of appropriate use.

In year 1, lead a national awareness campaign based on evidence-informed and trusted information, and carry it out with partners.

RECOMMENDATION #6

All partners actively develop a pan-Canadian data strategy to support medication appropriateness, led by the CDA.

In year 1, CDA brings together data partners and leads a data strategy to support appropriate use efforts. The data strategy should be developed with people with lived and living experience, and be endorsed by all partners.

RECOMMENDATION #7

The CDA adopt the leadership framework and build an implementation plan around it.

In year 1, build capabilities to embody the desired leadership attributes outlined in the framework.

RECOMMENDATION #8

All partners commit to the strategy and work with the CDA to successfully deliver on it.

In year 1, the CDA works with partners to adopt a collective impact approach that leverages strengths of the various partners in the system, including pan-Canadian health organizations.

RECOMMENDATION #9

The CDA set goals and foster a continuous learning and improvement environment through regular feedback loops and open communication with partners, including patients and those with lived and living experience.

In year 1, involve all partners to build on and amplify the work of existing organizations and promising projects across the country while identifying leading practices to scale and spread.



INTRODUCTION

Appropriate use means people taking medications best suited for their needs to provide the greatest possible benefit and avoid potential harm. Appropriate use of medications should add value to patients, their community, the health system and the broader environment.

Across Canada, an estimated 55% of adults and 23% of children and youth use at least one prescription medication in a month.^{3,4} Many people reach for prescription medications and other medicines or remedies to either maintain their health or to avoid getting sick or sicker. However, sometimes the medications being taken can cause harm, even when used as prescribed.

Unchecked, inappropriate medication use can present more harm than benefits to a person and impact their quality of life. It can also cause global health emergencies like antimicrobial resistance⁵ or the opioid crisis.⁶ Is the right drug being used? The right dosage and for the right duration? What are the potential side effects? How are medication decisions being made and what are the barriers to making appropriate treatment decisions?

These questions are important to answer – personally, systemically and globally.

Defining appropriate use

Health care providers and policymakers often use the terms appropriate use, rational use, correct use, and proper use interchangeably. However, these terms may not necessarily be commonly used or understood by the general public. When something is referred to as appropriate, it typically depends on who and what is being considered. Think of examples like ‘dressing **appropriately** for the weather’, ‘finding **appropriate** literature for a young reader’, or ‘planning **appropriate** services to support a growing population’. They all suggest that a person’s surrounding context and circumstances will influence what appropriateness means. When it comes to the use of prescription medications, the very same applies.

Appropriate use of prescription medications means people are taking medications best suited for their needs in order to provide the greatest possible benefit and avoid potential harm. Medication appropriateness prioritizes patient safety and creates better health outcomes, which will help health systems become more sustainable.

For patients, this can include the use of preventative medicines to reduce health-related risks. For prescribers, it can involve improving care through a closer look at patients' medication lists to eliminate the unnecessary use of medications. Appropriate use can also mean not using a medication at all, opting instead for proven non-drug approaches (e.g., replacing sleeping pills with good sleep hygiene).

Appropriateness depends on individual circumstances and on the best available evidence to meet the needs and care of each person in both the short- and the long-term.



Prescribing and using medication appropriately also prevents overuse, underuse and inappropriate use.

Defining overuse, underuse and inappropriate use

Overuse is when patients use medications that they do not need or that offer little value to their care, and are likely to cause them more harm than benefit. Furthermore, if a harmful or adverse effect from medication use gets interpreted as a new medical condition, it may trigger a determination that more drugs are needed to respond to the new symptoms. This is called a prescribing cascade,⁷ and it can lead to even more harmful effects. This and other types of medication overuse are often avoidable.

Potential overuse of Attention-deficit/hyperactivity disorder (ADHD) medication

The rise of ADHD medication use is a recognized trend in many parts of the world, including Canada. About one in nine children and adolescents in Canada and the USA use some form of ADHD medication, a rate that is far higher than in other countries.⁸ Furthermore, data from British Columbia (B.C.) reveal that ADHD medication use among B.C. adults has seen a dramatic increase over the years, rising from one user in 1,000 adults in 2004 to 16.5 users in 1,000 adults in 2022.⁹

It is difficult to ascertain whether these trends are due to diagnostic improvements, reduction of stigma, inadequate access to non-drug treatments for ADHD, or a result of overdiagnosis and over prescription of ADHD medication. ADHD is indeed one of the most common neurodevelopmental disorders and many individuals with ADHD experience improved outcomes after introducing medication. Nevertheless, health experts are concerned about potential over-diagnosis that could lead to unnecessarily medicating people.¹⁰ These medications can impair sleep, decrease appetite and cause behaviours that are atypical for the person being medicated. Appropriate prescribing and medication use means it is important to monitor benefits and risks.

Underuse refers to patients not taking a medication that they probably should take to treat or prevent a condition. Using the right preventative medications at the right time can mean better health for the patient, fewer primary care visits, less emergency care needed and possibly avoiding a serious health event altogether.


Underuse of statins for cardiovascular disease

Statins (cholesterol-lowering drugs), are known to reduce the risk of cardiovascular disease.¹¹ An estimated 2.8 million adults in Canada are being treated with statin medications. Some people at intermediate and high risk of cardiovascular disease do not take these medicines but would probably benefit from them. Closing that gap could possibly avert an estimated 19,500 cardiovascular events each year.¹²

Inappropriate use is the broad term for medication use that is not appropriate. Overuse and underuse fall under the broad umbrella of inappropriate use, as do other forms of treatment that do not adequately address the care and priorities of the patient. In providing the right guidance and support on medication decisions that address individual needs, inappropriate use can be avoided, and consequently patient outcomes can be improved.

Inappropriate use of antidepressants for treating alcohol use disorder

Antidepressants, specifically selective serotonin reuptake inhibitors (SSRIs), are sometimes inappropriately used to treat those with, or at risk of, alcohol use disorder (AUD). Depression and anxiety can impact those diagnosed with AUD, but prescribing SSRIs to treat AUD can worsen AUD symptoms for certain subgroups.^{13 14 15 16} Guidance published in the 2023 Canadian Medical Association Journal urges health care providers to screen patients for AUD and to treat those cases accordingly, with medications appropriate for AUD treatment, psychosocial approaches (e.g., counseling, social support) and/or behavioural interventions (e.g., cognitive behavioural therapy).¹⁷



It is important to be clear that there is no single cause for overuse, underuse, and inappropriate use of medications. Rather, suboptimal use results from a complex evolving health system, including new therapeutic advancements and changing population demands. For example:

- Canada's population is diverse, with medication needs that are not uniform.
- Scientific discoveries continue to bring new medications/treatments or improve existing ones.
- Prescribing authorities, guidance, and policies change over time.
- Clinicians cannot always access complete information about their patients due to a lack of connectivity between digital health platforms, limiting access to data that supports decision making and health system improvements.
- Health care providers and patients can be inundated with competing priorities.

A Look at the Benefits of Appropriate Medication Use in Older Adults

On average, older adults (65 years and older) tend to have a higher number of chronic conditions and are prescribed more medications than any other age group in Canada.^{18 19} The use of five or more daily medications (polypharmacy) in older adults is associated with potentially undesirable drug interactions and related health effects. Polypharmacy is also associated with an increased risk of falls.²⁰ With falls and increased fall risk come important social costs, such as adjusting a person's activities, shifting their routines or changing their living arrangements. Meanwhile, there are direct costs of paying for potentially inappropriate medications, as well as the indirect resource and financial costs that the health system pays as a result of fall-related primary care visits, hospitalizations, diagnostic procedures, etc. If costs linked to environmental pollution generated from the pharmaceutical supply chain and waste treatment linkages were further factored in, the costs would be much higher.

Improving medication appropriateness and reducing the use of low value medications therefore serves to avoid these unnecessary costs. It brings health, social, financial and environmental benefits by avoiding harms to patients, their community, the health system and the broader environment.

Improving medication prescribing and medication use in Canada requires collaboration between health providers, patients, people with lived and living experience, policymakers as well as other partners. Ultimately, appropriate use should add value to patients, their community, the health system and the broader environment by serving them in ways that bring greater benefits than risks.

What medication appropriateness can entail

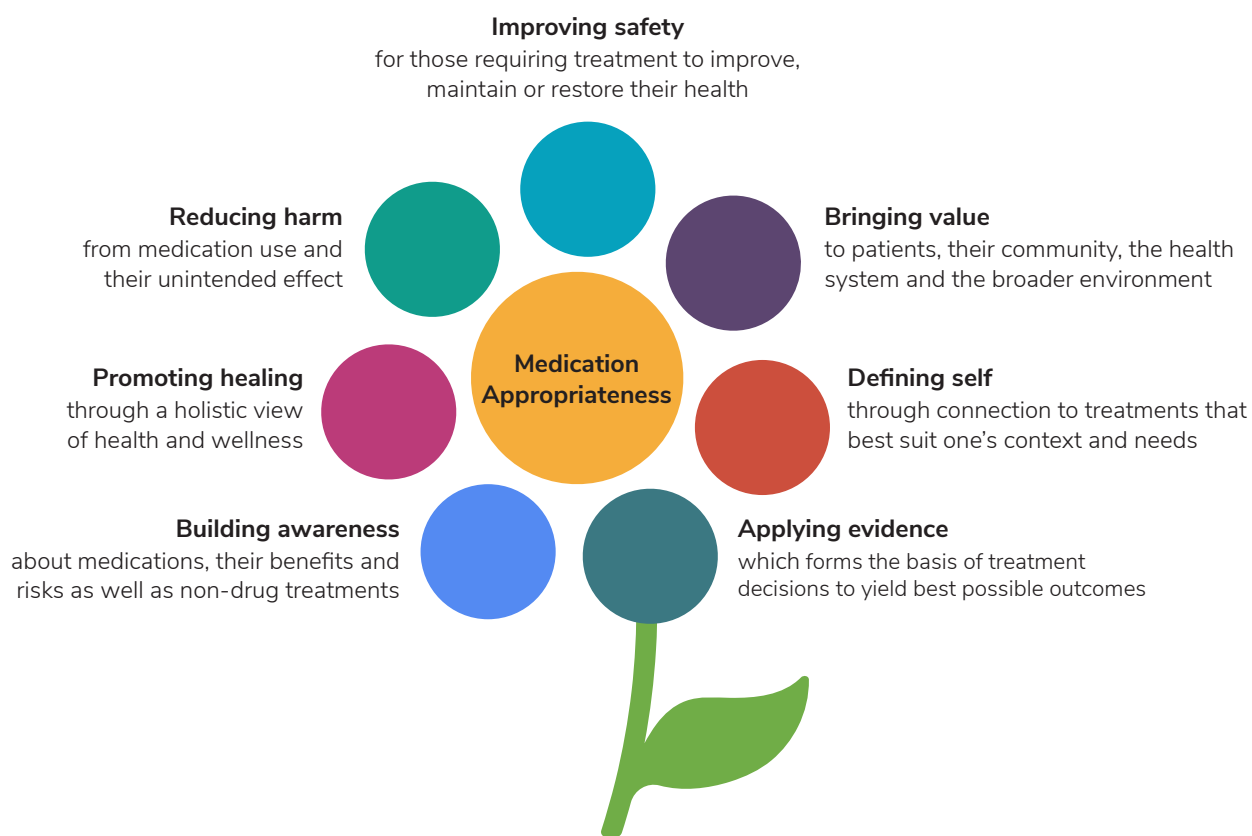


FIGURE 1: Describing Appropriate Use of Medications


Building awareness – Involves helping people better understand medications, the risks and benefits they bring, as well as options for treatments that might not include medications.

Promoting healing – Emphasizes exploring treatment options that do not fixate on getting rid of symptoms or disorders. Rather, they focus on options that support a holistic approach to healing that includes physical, mental, emotional and spiritual wellness.

Reducing harm – Focuses on limiting inappropriate medication use and its associated harms to individual health, social, financial, environmental and public health.

Improving safety – Closely tied with reducing harm, this supports medication decisions that help people avoid injury and risks to allow them to have the best possible quality of life.

Bringing value – Supports delivering value, accounting for the relative worth of the medication based on its potential benefits weighed against the potential harm and costs to patients, their community, the health system as well as the broader environment.



Defining self – Underscores that appropriateness will be specific to the individual, depending on what they define as their treatment goals, experiences, preferences and circumstances.

Applying evidence – Acknowledges the need for treatment decisions that are supported by best available evidence.

What medication appropriateness is not

Some of the questions and comments shared during the advisory committee’s interim report consultations are worth addressing. For example: ***Is appropriate use just another cost-containment measure? Is it a ploy to reduce treatment options for patients? Doesn’t meddling with prescribing infringe on practice of medicine, something the provinces and territories are responsible for?***

Appropriate use means decisions made by patients and caregivers with their health care providers on what works for the patient based on their clinical care, priorities and preferences. Sometimes it is a decision to reduce medication use. Other times it can be a decision to start taking a medication, and at other times it can be a determination that medication is not recommended or needed. Promoting informed choices to help improve decisions should not reduce options for patients. In fact, it should do the opposite by offering treatment alternatives that best suit a patient’s treatment objectives.

By the same token, appropriate use is not a cost cutting measure. Rather, appropriate use is about improving the quality of prescribing and of medication use, and ultimately quality of life. The priority is to help people achieve the best possible health outcomes. Any gains beyond that, such as resource and financial cost savings, are co-benefits.

Regarding matters that fall within jurisdictional purview, like the practice of medicine or health care delivery, the advisory committee maintains that those boundaries can be respected while making dedicated room for collaboration that benefits people across the country.

Appropriateness does not involve determining the validity of decisions made by patients and caregivers and their providers. However, it does positively impact every shared health priority identified between federal, provincial and territorial governments in Canada, through:

- supporting quality mental health services, including for substance use disorders
- bolstering quality of care in family health services
- promoting more effective use of limited health human resources to support health care providers and reduce backlogs for health services
- championing the exchange of electronic health information between patients and health care providers to enable a modernized health system

Thinking beyond medications

Appropriate Use of Complementary, Alternative and Traditional Treatments

There remains room for improvement in integrating complementary, alternative and traditional methods of healing, particularly given their proven intergenerational effectiveness in other cultural contexts. Appropriate use partners have a part to play in reconstructing Canada's neo-colonial systems and structures, and re-centring power and control to those who have been disproportionately impacted. They can do this by supporting appropriate use policies, programs and practices that provide for Indigenous knowledge and teachings, as well as approaches from other cultures and practices.

Medication appropriateness is not limited to using or not using prescription medications. It also supports the adoption of non-drug treatments where evidence favours their use over or in tandem with medications. Non-drug treatments can involve interventions like physiotherapy and psychotherapy, as well as changes related to individual habits (e.g., diet, exercise). The health benefits of non-drug therapies can sometimes outweigh those of medications. Non-drug options can also sometimes improve the efficacy of medications. As such, it is important to establish equitable reimbursement mechanisms to support uptake of appropriate and beneficial non-drug treatments.

At the same time, addressing appropriate use is not about setting up another silo or building a plan from scratch. It acknowledges there is significant work occurring in this area across the country, and it presents an opportunity to connect this work. Making an effort to think differently, finding a way to work together and learn from one another will strengthen how we approach medication appropriateness.



Appropriate prescribing and appropriate use of medications in Canada today

There are many efforts across the country making a difference with respect to medication appropriateness. A preliminary scan of Canada identified over 50 related programs and initiatives. These range from nation-wide programs to localized initiatives aimed at improving medication appropriateness in one way or another (see [Annex C](#)). Initiative types include:

- **Academic detailing:** individualized educational visits from trained professionals to provide unbiased information to help health care providers adopt best prescribing practices.
- **Audit and feedback:** measurement of an individual health provider's performance against professional standards and targets, which is subsequently provided back to the provider.
- **Decision support tools:** tools (typically electronic) that guide patients and health providers through the process of prescribing and deprescribing medication.
- **Educational tools:** such as learning modules, seminars, webinars and patient materials.
- **Public awareness campaigns:** such as brochures, ad campaigns and posters.
- **Guidelines and toolkits:** such as clinical algorithms and structured medication management practices.

Today, initiatives to improve prescribing and medication use often operate independently, in pockets of excellence across the country. Localized initiatives (e.g., patient peer support groups) are often difficult to identify. Coordination is needed to increase the scale of these initiatives and help enhance their reach, potentially across the country. This would allow for more equitable and uniform improvements to patient outcomes.

A PAN-CANADIAN STRATEGY

A pan-Canadian problem requires a pan-Canadian solution.

The proposed pan-Canadian appropriate use strategy (the 'Strategy') includes guiding principles, a vision, mission, measurable goals and objectives, and strategic priorities to collectively advance the Strategy.

The fundamental underlying values of the Strategy are based on six key principles. They underscore the need to focus on the care and priorities of people, to build on existing work related to medication appropriateness across Canada, and to advance appropriate use by working together with partners. The principles also emphasize key values of health equity, the application of best evidence and the promotion of resource stewardship. These principles should be considered and reflected in all activities under the Strategy, from planning to implementation to communication.

GUIDING PRINCIPLES: FUNDAMENTAL VALUES UNDERLYING THE STRATEGY



PERSON-CENTRED

Focuses on the care and priorities of persons and promotes shared decision-making



EVIDENCE-INFORMED

Applies the best available evidence on interventions and implementation approaches to guide effective change



COLLABORATIVE

Values collaboration and shared accountability with all partners in the health system and those along the care continuum



CONTINUOUS

Leverages existing efforts to improve appropriate use and supports their coordination, advancement and success



EQUITABLE

Seeks to reduce social, cultural and environmental barriers to appropriate use which hamper opportunities for patients to achieve their full health potential



SUSTAINABLE

Strives for solutions that improve resource stewardship and enhance health system and environmental sustainability

Together, the guiding principles and strategic elements outline a pathway to guide partners toward a consistent approach to medication appropriateness across Canada.



VISION: WHAT WE STRIVE TO ACHIEVE

All people in Canada take prescription medicines that are appropriate for them.



MISSION: WHAT THE STRATEGY EXISTS TO ACCOMPLISH

Support partners to enable everyone to be optimally informed about medication appropriateness, focusing on prescription medicines or non-drug therapies that provide the greatest possible benefit and avoid potential harm, delivering value to patients, their community, the health system and the broader environment.



GOALS: HOW THE STRATEGY WILL FULFILL THE VISION & MISSION

- ▶ Support patients and their caregivers to make informed choices that are developed with them and prioritize their personal goals and values
- ▶ Equip clinicians with evidence-informed tools to support appropriate prescribing in their standards of practice
- ▶ Support policy and decision-makers in implementing appropriate use programs and policies based on best available evidence, patient perspectives and leveraging leading edge technologies
- ▶ Strengthen health system sustainability through collaborative efforts to incentivize appropriate use practices that optimize provision of health services
- ▶ Collaborate with private sector partners (including insurers, pharmaceutical manufacturers) to foster an environment that promotes appropriate use



OBJECTIVES: TACTICS TO PROMOTE THE DESIRED GOALS

- ▶ Facilitate improvements in prescribing and use of medications by health professionals and patients, through education and use of the best available evidence on interventions and implementation approaches generated from a variety of contexts.
- ▶ Enhance reach and relevance of appropriate use programs, through targeted communication to, and adoption of digital technologies by, multiple partners, including patients.
- ▶ Strengthen pan-Canadian coordination of appropriate use programs and initiatives to facilitate sharing of best practices, reduce duplication of efforts and improve system performance and sustainability.
- ▶ Foster collective buy-in, ownership and impact of appropriate use decision making and programs amongst all system partners.
- ▶ Enhance accountability of all system partners through improved protocols, policies/regulations, programs and data systems, backed by high quality research, evaluation and performance measurement and transparent reporting back to the public.

Strategic priorities

The advisory committee has identified five priorities to achieve the Strategy's overall vision. The priorities are connected and designed to mutually reinforce one another, creating a continuous learning cycle, as illustrated below.



FIGURE 2: Strategic Priorities of a pan-Canadian Appropriate Use Strategy

RECOMMENDATION #1

The CDA lead and implement the proposed strategic priorities facilitating the active participation of all partners. CDA should measure and report on progress annually.

In year 1, establish a network of key partners dedicated to advancing the Strategy's priorities and convene these partners. CDA should clearly state the actions it will take to support and complement partner efforts.

1. Collaboration



The focus of this priority is on working together and building synergistic relationships that inspire and invigorate others to improve medication appropriateness. This involves having local champions lead appropriate use efforts, link partners with initiatives, and help to form structures or processes that allow for sustained collaboration. Collaborating could be as simple as engaging on a perspective or idea with a new partner, or as involved as setting up a network of different partners to advance appropriate use. Collaborative efforts should involve sharing what has and has not worked, to help successful initiatives expand or be initiated elsewhere in Canada.

“Collaboration and health system integration and sharing of patient care data is critical for appropriate prescribing and use of medications”

– Clinician and prescriber

How the CDA can advance this priority

To establish and maintain its leadership role, the CDA will need to continuously build credibility and trust among its partners. This involves demonstrating accountability and transparency of the CDA’s actions and progress. Showing leadership will also involve actively convening partners, listening to concerns and supporting their needs with practical solutions. Solutions should be carried out collectively while respecting collaborators’ different priorities. As such, these activities should be efficient and productive. Establishing connections and creating an effective appropriate use program will allow the CDA to become a reputable reference for Canada, inspiring others to consider medication appropriateness along the way.

Suggested activity areas:

- Establish regular forums and tables for dialogue and discussion with partners, including patient communities.
- Support the maintenance of existing collaborative tables.
- Convene different partners to promote inclusion.
- Develop a resource hub with relevant up-to-date information.
- Keep partners informed and engaged on the outcomes of their involvement, particularly the public, patients, and people with lived and living experience.



Meet Eric, a 48-year-old construction worker and single father to 14-year-old Sarah. Eric helps Sarah manage her Type 1 diabetes. She takes insulin daily but finds the treatment regimen incredibly overwhelming. Eric wants to find better ways to support her but also feels overwhelmed by how much information he finds online. He worries constantly about Sarah's medical care and how he can help her care for herself.

How do the CDA program and pan-Canadian Strategy serve him?

- The CDA creates a centralized resource hub that supports caregivers, patients and prescribers by connecting them to information from programs across the country. Through this hub, Eric becomes aware of new diabetes technologies for children. One of these is a small wearable insulin pump that delivers short-acting insulin every few minutes in tiny amounts, 24 hours a day. Eric feels equipped to bring this new knowledge to a health care provider to discuss what is best for Sarah. He feels reassured knowing that Sarah has a reliable source to turn to keep up to date with evolving treatments.

Where the CDA can start

The advisory committee recommends that a team within the CDA be dedicated to engaging partners with the goals of building trust and credibility. At the same time, this team would facilitate coordinated participation to support the Strategy. The success of this team will involve an engagement plan that amplifies impact by connecting patients, people with lived and living experience, the public and other key partners. It will also include professionals of different disciplines, like behavioural scientists, patient advisors, and social media experts.

Collaboration Spotlight: SaferMedsNL

Many people have positive experiences with reflux or heartburn medication and sleeping pills, but their prolonged use is known to cause potentially harmful side effects. For most people, heartburn medication is not recommended for more than three months, and sleeping pills not for more than four weeks. Newfoundland and Labrador are home to some of the highest use of these potentially harmful medications in the country, and that has created an urgency for change.

SaferMedsNL was created in 2019 with the objective of promoting safe and effective medication use for people living in Newfoundland and Labrador. It brought together patient advocates, community organizations, healthcare professionals and academic researchers. Its goal was to improve medication use through deprescribing (or safely stopping) potentially harmful or unnecessary medications. Health care providers provided patients with a SaferMedsNL brochure explaining the pros and cons of heartburn medication or sleeping pills, with a recommendation to talk to their doctor, nurse or pharmacist. Pharmacists were also encouraged to talk to patients and prescribers to review the long-term use of these medications through SaferMedsNL's pharmacist deprescribing intervention.

The results have been encouraging. Between April 2019 and December 2021, the [SaferMedsNL.ca](https://www.safermeds.ca) website received over 30,000 hits. The initiative raised public awareness in Newfoundland and Labrador on the harms of long-term heartburn medication and sleeping pill use to levels above national awareness. It also led to a reduction in the use of those medications. The launch of SaferMedsNL's second heartburn medication public awareness campaign reduced heartburn medication use by 11% from November 2020 to March 2022. Its sleeping pill campaign resulted in a 7% reduction in chronic sleeping pill use from February 2020 to March 2022. Importantly, there was a 10% reduction in sleeping pill use in adults 70 years and above, who are most vulnerable to the side effects of sleeping pills. SaferMedsNL's pharmacist deprescribing intervention was also associated with a 20% reduction in the doses of heartburn medications, and 12% reduction in the doses of sleeping pills for adults 70 years and above.

The efforts of all SaferMedsNL partners have resulted in increased public awareness of the harms of long-term medication use and reduced use of potentially harmful medications. This clearly demonstrates the power of working collaboratively, with community support and government backing, to build broad-scale dialogue.

2. Policy

Policy is a plan of action that outlines expectations for the delivery of programs and services and provides a basis for consistent decision making and resource allocation. Policy can include guidelines, programs, government direction, funding approaches and many other instruments. Advancing policy as a priority is important as it can be a powerful tool to drive actions or behaviours toward appropriate use. For example:

- incentivizing health care providers to ensure appropriate prescribing;
- establishing dialogue and creating a culture of clinical practice that encourages patients to ask questions about their medications (e.g., through standard operating procedures); and
- reviewing reimbursement structures to support the adoption of appropriate therapies that include non-drug options.

Aligning policy and organizational initiatives to appropriate use priorities can positively influence prescribing and use patterns. Policies and initiatives may look different depending on the clinical, organizational or jurisdictional context.

How the CDA can advance this priority

The advisory committee recommends that the CDA gather data from real world settings. The CDA should also use this data to generate evidence needed to provide informed advice on promising policy practices that can improve medication appropriateness in Canada and internationally. The advice can be general or tailored to specific contexts. Importantly, policies should be updated when new evidence and research emerges, including from lived and living experience. Policies should also consider emerging health priorities to support policy and decision makers with adapting to change.

Suggested activity areas:

- Support creating new evidence and identifying person-centric priorities that will inform policy decisions.
- Conduct analysis on prescribing and medication use behaviours and their related impacts.
- Demonstrate the benefits and efficiencies of appropriate use efforts.
- Engage with patients and people with lived and living experience to support the spread and adoption of effective policies and strategic initiatives into various contexts.

“This fills a gap on capacity that we don’t have. Will help bring consistency around Canada.”

– Provincial or Territorial Representative

Where the CDA can start

The advisory committee recommends the CDA engage jurisdictions in dialogue on appropriate use. Within its first year, the CDA should collaborate with jurisdictions, patients and people with lived and living experience to identify a common appropriate use area to address. At the same time, the CDA should work with partners on appropriate access to non-drug therapies, where the evidence indicates that they are more suitable than medications.



Meet Anna, a 38-year-old First Nations physician starting a new role at a long-term care home for both Indigenous and non-Indigenous people. She notices that some experience side effects due to polypharmacy, which is the use of 5 or more medications. They would prefer for non-drug practices to be part of their ongoing care. Anna wants to draw on her own experiences and actively listen to others in her work. She wonders how she can reduce polypharmacy and better support and integrate traditional healing treatments into clinical practice.

How do the CDA program and pan-Canadian Strategy serve her?

- The CDA promotes collaborative efforts and prescribing policies that are person-centred. This encourages Anna to implement traditional healing practices. She connects with others to share her experiences and learn what has worked best in other parts of the country. Anna learns about resources from Indigenous health leaders in her province and incorporates them into her work. She actively raises awareness among her colleagues, fostering a shared commitment to person-centred care.

3. Research and Evaluation



Successful implementation of the Strategy will involve testing approaches and measuring results. Available data provides limited information about the effectiveness of medication appropriateness programs. Therefore, as the Strategy rolls out it will be important to critically evaluate initiatives and share the associated results. Strengthening evaluation and transparency on related findings will support a cycle of testing and measuring, learning and sharing.

How the CDA can advance this priority

The CDA will need to evaluate the Strategy's progress with the help of its partners. To do so will require providing leadership on what to measure, how to measure it, and identifying what partners want to collectively learn from the evaluation. There is limited infrastructure to carry out local evaluations, so the CDA should help partners evaluate their own initiatives by offering guidance, resources and capacity support (e.g., tools, expertise). Building an evaluation and reporting mechanism that is feasible and sustainable will require input from experts (as well as partner perspectives).

Suggested activity areas:

- Develop a baseline evaluation framework using a collective impact approach that includes:
 - quantitative measurements (e.g., numbers, percentages)
 - qualitative measurements (e.g., interviews, feedback)
 - indicators reflecting input from patients, people with lived and living experience and equity-deserving populations
- Lead reporting on the CDA's work and the Strategy's progress that reflects:
 - transparent collection of relevant performance data and analysis of results
 - ongoing developments, including improvements and lessons learned
 - accessibility both in format (e.g., language, visuals) and outputs (e.g., reports, podcasts)

Where the CDA can start

The advisory committee recommends the CDA engage subject matter experts in program evaluation to identify initial indicators and performance measurement elements that inform the development of a baseline evaluation framework. At the same time, the CDA should support policy and decision makers in adopting an approach that focuses on the collective impact of appropriate use efforts from all partners.

4. Data and Technologies



To inform the other priorities of the Strategy's cycle, more and better information is needed on prescribing and medication use trends. A better understanding of the 'why' behind medication overuse, underuse and inappropriate use, including the reasons behind the issues, will help adequately address them. Technological solutions, particularly those designed for health professionals, patients and those with lived and living experience, can help inform decision making on medication appropriateness. Ultimately, partners are needed to support the improvement of access to health data across different health care settings.

"We need to empower patients to take part in the decision-making process with data and education. We need to go broader to educate the public, and industry can play a role here too."

– Industry Representative

How the CDA can advance this priority

In addition to improving appropriate prescribing and medication use, the advisory committee recommends that the CDA lead efforts to increase pan-Canadian data collection and expand access to medication and treatment data, including evidence from real world settings. The CDA should seek to help inform decisions by improving the availability and accessibility of diagnostic, prescribing and medication use data, which will build the evidence base for medication appropriateness.

Suggested activity areas:

- Develop an appropriate use data strategy with partners.
- Build on existing work to improve the standardization of and access to health data and medication data.
- Utilize evidence from real world health care settings to inform the Strategy and best practices.
- Include evidence from non-drug treatments.

Where the CDA can start

As the CDA advances its work related to data and analytics, the advisory committee recommends that the CDA align this work with the Strategy. Identifying and gathering the information required to improve medication use, person-centred care and health outcomes is a priority for the Strategy and the CDA. As the CDA matures, it should continue championing appropriate use across the CDA and its lines of work.

5. Program Design, Implementation and Delivery

Efforts are needed to coordinate organizations and their appropriate use initiatives, to help deliver consistency and equity, as well as spread best practices and scale up promising initiatives. This priority centres on identifying common program areas to advance, promoting evidence-informed programs and implementation approaches, and building local capacity from the ground up to support more unified, high-quality programs.

How the CDA can advance this priority

The CDA should grow regional and local capacity with partners. This will allow for programs and initiatives to be developed, adapted and implemented through a common vision and coordinated workplans. This includes facilitating partnerships, leading program areas where gaps may exist and sustaining program funding to support the achievement of goals and objectives.

Suggested activity areas:

- Grow capacity: foster new and existing partnerships, support grassroots partners to adopt best practices, fund partners (including patient groups) and projects that advance the Strategy's goals and objectives.
- Bring consistency: prioritize issues of inappropriate use, catalyze spread and scale of promising or proven initiatives to be effective and feasible in different contexts.
- Spread awareness: advocate for medication appropriateness across Canada, develop and share information and communication materials that are co-designed with patients and those with lived and living experience, promote education and training for existing and future health care providers.

Where the CDA can start

The advisory committee recommends the CDA lead national awareness campaigns and circulate trusted information (e.g., unbiased, evidence-informed) to patients, people with lived and living experience, health professionals and the public. This includes promoting existing initiatives, advocating for related priorities in health care settings and using media and nation-wide events to showcase, champion and amplify the significance of medication appropriateness.

Program Spotlight: Sleepwell

Sleeping pills are commonly used to manage insomnia, but they do not address the root causes of it. In addition, side effects and risks from taking sleeping pills include memory problems, fall injuries, pneumonia, driving accidents, dependence and withdrawal. The impact of these risks can be serious, especially in older adults.

In 2013, researchers at Dalhousie University created Sleepwell with the aim of transforming insomnia treatment to provide better patient care. Sleepwell's goals are to encourage the use of treatments that align with best available research for chronic insomnia, including cognitive behavioural therapy for insomnia (CBT-I) to reduce the excessive use of sleeping pills. Sleepwell works with people who have lived and living experience with insomnia to develop its tools, resources and recommendations, which are updated regularly on its website mysleepwell.ca. Sleepwell's approach and materials are also reviewed, informed and endorsed by sleep experts, psychologists, physicians, pharmacists and other health professionals.

The value and impact of this collaborative initiative is reflected by the over 6,000 monthly Canadian website users. Also, a study involving 565 older adults with long-term sleeping pill use demonstrated a significant likelihood to reduce or stop sleeping pills and use CBT-I techniques after receiving Sleepwell's materials by mail. These findings from the Your Answers When Needing Sleep in New Brunswick (YAWNS NB) study demonstrate Sleepwell's effectiveness in shifting insomnia treatment through the power of working together. Programs like Sleepwell have the potential to improve medication appropriateness across the population with continued scale and spread.



RECOMMENDATION #2

The CDA act to support the strategic priorities, starting with those that advance collaboration, and report on its progress and success.

In year 1, establish an appropriate use implementation advisory body. This advisory body would inform the implementation of the advisory committee's recommendations as well as future appropriate use priorities, and report progress.

RECOMMENDATION #3

The CDA establish itself as a reputable reference for Canada on appropriate use of medications.

In year 1, begin work on building credibility and relationships. Dedicate resources to liaising with diverse partners and to support them in addressing issues and recommendations identified by the advisory committee.

RECOMMENDATION #4

The CDA establish a strong relationship with provinces and territories to build local appropriate use capacity.

In year 1, engage with provincial and territorial governments to identify how the CDA can support them in building their capacity to address appropriate use issues. Together, identify how to act on the advisory committee's recommendations and include patients and people with lived and living experience in those efforts.

RECOMMENDATION #5

The CDA build awareness and understanding of appropriate use.

In year 1, lead a national awareness campaign based on evidence-informed and trusted information, and carry it out with partners.

RECOMMENDATION #6

All partners actively develop a pan-Canadian data strategy to support medication appropriateness, led by the CDA.

In year 1, CDA brings together data partners and leads a data strategy to support appropriate use efforts. The data strategy should be developed with people with lived and living experience, and be endorsed by all partners.

CDA LEADERSHIP FRAMEWORK

Leading the Strategy will require the CDA to build the necessary capabilities as a leader among many other established leaders. The CDA has an opportunity to complement existing organizations and build value by addressing gaps, driving synergies and reducing duplication. The advisory committee recommends eight areas of leadership for the CDA to consider in advancing medication appropriateness.



INSPIRE
Champion appropriate use to help ensure access to interventions is widespread and equitable



FOCUS
Support the development of a **common vision/goals** for policies, programs and initiatives that align with the evolving landscape



COORDINATE
Improve **coordination** of existing and emerging programs to avoid duplication and maximize resources



CONVENE
Bring patients and partners together to **build dialogue** and share information



INFORM
Gather data and **generate evidence** from a variety of sources to support and develop initiatives



EVALUATE
Evaluate initiatives to improve effectiveness, scale and spread of promising practices



BUILD / SCALE
Develop **regional/local capacity** to advance initiatives; implement or adapt promising practices



SUSTAIN
Sustain **funding** for coordinated appropriate use programming via the CDA

FIGURE 3: Areas of Leadership for the CDA

1. Inspire

Appropriate use may be a familiar term for policy makers. However, a coordinated approach to understanding the benefits and harms of medications may be a novel idea for the public. The CDA who champions appropriate use and integrates it as central to person-centred health care adds value for everyone.

“The CDA can advocate for improved quality and distribution of social determinants of health that underpin the ability to seek and benefit from available medications.

– Equity-Mobilizing Partnerships in Community

2. Focus

A common approach is needed to design and implement policies, programs and initiatives. The CDA can add value by bringing focus around a common vision for medication appropriateness while setting common priorities that respond to the evolving needs and priorities of an ever-changing pharmaceutical system.

3. Coordinate

The appropriate use landscape requires coordination. The CDA’s value will be in developing its understanding of appropriate use organizations and initiatives across jurisdictions to improve coordination amongst them. This includes maximizing resources by identifying areas of duplication and opportunities for synergy.

4. Convene

There is no shortage of efforts to improve medication appropriateness in Canada. However, the CDA will need to link organizations and their existing positive contributions. The CDA can be a convenor that brings people together, fosters a collaborative environment, and becomes the glue that helps partners connect, share, align and add value.

“Put in the work and build the relationships with those traditionally not at your tables; go to them, don’t expect them to come to you.”

– Patient



Meet Ravi, a 35-year-old pharmacist working in a community pharmacy in a low-income neighbourhood. Many of his clients face barriers to accessing health care, like not having a family doctor and being unable to receive care in a preferred language. Ravi knows how medications can improve health and wants to better support his community but struggles to overcome these barriers.

How do the CDA program and pan-Canadian Strategy serve him?

- Ravi goes to an appropriate use conference hosted by the CDA and meets researchers working in the area. They launch a pilot project that provides resources on medication use in multiple languages and accessible formats. Ravi uses these resources to make care easier to receive, helping his clients improve their medication use and achieve their health goals. This often includes an increased uptake of previously under-used drugs within the community, such as statins. Following the success of the pilot, Ravi brings the results back to his colleagues. They carry out similar programs in other communities based on the lessons learned.

The Canadian Coalition for Appropriate Use of Medications: The Power of Convening

Medication appropriateness efforts in Canada are widespread but not always streamlined and coordinated. In 2023, two established appropriate use organizations, Choosing Wisely Canada and the Canadian Medication Appropriateness and Deprescribing Network, set out to change this. With the support of the Canada Drug Agency Transition Office, they convened over 10 organizations and patient partners with the aim of accelerating improvements in the appropriate use of medications in Canada. The group of leading quality and patient safety organizations, health information organizations and patient partners has been meeting regularly to share best practices and emerging evidence, identifying and prioritizing 1 to 2 initiatives to collectively advance. It is the first coalition of its kind. While the coalition is under development, it is a promising example of convening partners and coordinating with them to advance toward a common vision.

5. Inform

Canada's health care systems are often referred to as "data rich but information poor". While it creates plenty of data, information does not necessarily inform decision making, nor does it link medication prescribing and medication use to health consequences and impacts on the system. The CDA can add value by improving data collection and generating robust evidence to inform its appropriate prescribing and appropriate medication use program.

6. Evaluate

Evaluating appropriate use initiatives is currently unstructured, with no established mechanism to measure effectiveness in a consistent manner. The CDA has an opportunity to build a clear and transparent evaluation system to help improve the understanding of effective interventions and initiatives, as well as how to adapt them in different settings.

7. Build/Scale

Research can identify promising approaches, but to bring these approaches into practice requires resources and know-how, which are challenging to acquire. In order to add value, the CDA will need to build capacity across the system, focus on regional and local implementation, and integrate and adapt leading practices. This way, patients, people with lived and living experience, and health professionals may benefit.



Meet Dylan, a 60-year-old restaurant manager transitioning into retirement. He has been taking sleeping pills for many years because of sleep issues earlier in life. Over time, he has experienced increased side effects like daytime grogginess, memory problems and dizziness. The connection between these symptoms and his sleeping pills was never made.

How do the CDA program and pan-Canadian Strategy serve him?

- The CDA supports the growth of promising regional programs by helping them build on established best practices. A CDA-supported appropriate use initiative sends Dylan a package in the mail that includes information on the side effects of sleeping pills. It also provides resources on other ways to improve sleep quality. Using these resources, Dylan and his doctor decide to slowly taper him off his sleeping pills and to try alternative treatments like cognitive behavioural therapy. This choice lets Dylan enjoy his retirement without having to deal with the side of effects of his sleeping pills.

8. Sustain

Partners face challenges in advancing promising appropriate use initiatives due to funding constraints. The CDA has an opportunity to provide reliable funding to support effective interventions and demonstrated results with an intent to spread and scale.

Moving forward, the CDA can build on the existing work of partners and capitalize on an opportunity to form a collaborative appropriate use network and advance on the Strategy proposed in this report.

RECOMMENDATION #7

The CDA adopt the leadership framework and build an implementation plan around it.

In year 1, build capabilities to embody the desired leadership attributes outlined in the framework.


PARTNERING FOR COLLECTIVE IMPACT

There is no one group that can move the bar on medication appropriateness consistently across Canada. A problem that impacts everyone collectively requires a response that is actioned collectively. Pan-Canadian appropriate prescribing and appropriate medication use requires collaboration from all partners, each taking responsibility for their piece.

Every partner can contribute to the Strategy in a way that complements the work they are doing or the part they play in the health system. Partners can contribute to one or several of the responsibilities outlined in the diagram below:



FIGURE 4: Partner Responsibilities Within a pan-Canadian Appropriate Use Strategy



A shared responsibility across all partners is accountability to patients, people with lived and living experience, and the broader health system. This shared responsibility underscores the importance of serving the best interests of those who matter most.

RECOMMENDATION #8

All partners commit to the strategy and work with the CDA to successfully deliver on it.

In year 1, the CDA works with partners to adopt a collective impact approach that leverages strengths of the various partners in the system, including pan-Canadian health organizations.

RECOMMENDATION #9

The CDA set goals and foster a continuous learning and improvement environment through regular feedback loops and open communication with partners, including patients and those with lived and living experience.

In year 1, involve all partners to build on and amplify the work of existing organizations and promising projects across the country while identifying leading practices to scale and spread.



CONCLUSION

Canada needs a strategy to enhance appropriate medication prescribing and appropriate medication use that benefits people across the entire country. The ideas and recommendations presented in this report are the Appropriate Use Advisory Committee's best advice on moving medication appropriateness forward.

There are established partners who are highly motivated and committed to hit the ground running on improving appropriate use. What is needed now is to harness the existing energy and dedication of those partners, strengthen appropriate use networks and build the momentum to carry out actions that support this important work. Working together will bring Canada closer to a future state where all partners are more connected, better coordinated and set up to learn from one another.

The Appropriate Use Advisory Committee calls on all partners to come together to drive an appropriate prescribing and appropriate medication use movement, one that amplifies the guiding principles of appropriate use (person-centred, evidence-informed, collaborative, continuous, equitable, sustainable) and the positive impacts it brings to all of health care.



ANNEX A: APPROPRIATE USE ADVISORY COMMITTEE MEMBERS

Stephen Samis – Chair

Stephen Samis is the former Deputy Minister, Health and Social Services, for the Government of Yukon. Previously he worked for the Canadian Foundation for Healthcare Improvement, The Heart and Stroke Foundation of Canada, and the Canadian Institute for Health Information. Stephen has extensive experience in federal, provincial and territorial relations, health policy and health program delivery. He currently holds an Adjunct faculty appointment in the Department of Community Health, and is the Associate Scientific Director, Policy and Partnerships and Director, Centre for Health Policy, at the Cumming School of Medicine, University of Calgary. He is also a member of the O'Brien Institute for Public Health, University of Calgary. Stephen is the chair of the Appropriate Use Advisory Committee.

Michael Allan – College of Family Physicians of Canada

Michael Allan is the Director of Programs and Practice Support at the College of Family Physicians of Canada and Adjunct Professor in Family Medicine at University of Alberta. He has practiced over 20 years. He co-leads the regular evidence-based updates called Tools for Practice, the Simplified Guideline Program with the primary care group PEER (Patients, Experience, Evidence, Research) and the Best Science Medicine Podcast.

Julia Bareham – Pharmacist with RxFiles

Julia Bareham is a pharmacist with RxFiles Academic Detailing Service in Saskatoon, Saskatchewan. She also works casually as a community pharmacist. Julia joined the RxFiles team in 2009 and until 2015 she provided academic detailing services on a variety of topics including medication optimization in the long-term care population. In late 2015, Julia joined the College of Physicians and Surgeons of Saskatchewan where she held the position of Pharmacist Manager for the Prescription Review Program. In early 2019, Julia returned to RxFiles where her professional interests include geriatrics and substance use disorders. Her work at RxFiles involves providing academic detailing services across the province of Saskatchewan, and the development of evidence-based drug therapy educational materials.

Julia also serves as a committee member for the Drugs and Therapeutics Advisory Committee for Non-Insured Health Benefits of Indigenous Services Canada as well as for the Saskatchewan Health Authority Research Ethics Board.

Chantal Faucher-Francoeur – Pharmacist with Green Shield Canada

Chantal Faucher-Francoeur is a key member of Green Shield Canada's pharmacy team, bringing her deep knowledge of the pharmacy landscape in Quebec to develop local and national strategies and provide oversight of Green Shield's pharmacy services in the province.

Chantal is a qualified pharmacist (B. Pharm) and a Member of the Ordre des pharmaciens du Quebec since April 2000. Her expertise spans the insurance industry, retail pharmacy, hospital pharmacy and the pharmaceutical industry. Over the past ten years, she has established and implemented drug management strategies, shared market insights with clients, presented at industry events and contributed to various Canadian Life and Health Insurance Association committees.

Chantal is also a Quebec registered attorney, with more than 15 years of experience in litigation and commercial law. She reviewed commercial contracts and negotiated commercial terms on behalf of clients as a legal consultant. She has supported the Ordre des pharmaciens du Quebec with investigations into alleged violations by members of the Ordre.

Sudha Kutty – Canadian Agency for Drugs and Technologies in Health

Sudha Kutty is the Executive Vice-President of Evidence, Products, and Services at the Canadian Agency for Drugs and Technologies in Health (CADTH). She is responsible for leading CADTH's pharmaceutical reviews, as well as their medical device and clinical interventions portfolios.

Recognized as a seasoned health care executive, she has more than 25 years of strategic, health care leadership experience. Sudha is passionate about health care and brings a wealth of experience in promoting health system improvements by actively supporting the adoption of evidence into practice.

Before joining CADTH in January 2023, Sudha was the Vice President of Strategy and External Relations at Humber River Hospital. Prior to that role she was the Interim Vice President of Quality Improvement at Health Quality Ontario (Ontario Health).

Sudha holds an Honours BSc in Human Biology and International Relations from the University of Toronto, a degree in law from the University of Western Ontario, and an MBA from the Rotman School of Management at the University of Toronto. She is also a member of the Law Society of Ontario.

Wendy Levinson – Choosing Wisely Canada

Wendy Levinson is a Professor of Medicine and Past Chair of the Department of Medicine at the University of Toronto. She is a national and international expert in the field of physician-patient communication, studying topics like informed decision making. She is the Chair of Choosing Wisely Canada and Choosing Wisely International.

Stan Marchuk – Nurse Practitioner Association of Canada

Stan Marchuk is the past President of the Nurse Practitioner Association Canada. He is a family nurse practitioner with a specialized practice in oncology, providing expert care to patients with cancer requiring radiotherapy treatment.

He holds adjunct faculty appointments at the University of British Columbia and University of Victoria.

Connie Newman – Public Representative

Connie Newman is the Executive Director for the Manitoba Association of Senior Communities (MASC). MASC leads the Age-Friendly and Social Prescribing initiatives in Manitoba. As Executive Director, she plays a leading role in the Coalition for Healthy Aging in Winnipeg. Additionally, MASC is a member of the MB Seniors Coalition.

Nationally Connie is the chair of the public relations committee for Canadian Association for Deprescribing Network. Connie also represents Manitoba at the Public Health Agency of Canada's Age Friendly Reference Group.

Danielle Paes – Canadian Pharmacists Association

Dr. Danielle Paes is the Chief Pharmacist Officer at the Canadian Pharmacists Association, where she is driving strategic efforts in the areas of pharmacy practice, workforce sustainability and diversity, equity and inclusion. She believes a thriving profession, will enable pharmacists to continue to meet the emerging health needs of their patients.

In addition to her genuine passion, her unique pharmacy portfolio gives Dr. Paes a national lens enabling her to provide leadership and guidance on key issues facing pharmacy and health care in Canada. Most recently she was practicing as a pharmacist at Holland Bloorview Kids Rehabilitation Hospital in Toronto; she has held previous roles in community pharmacy, industry and academia.

Dr. Paes is recognized as a dynamic and forward-thinking leader, committed to advancing the profession, engaging and supporting front-line pharmacists and advocating for effective use of our Canadian health care system to help optimize patient care.

She earned her bachelor and Doctor of Pharmacy degrees from the University of Waterloo and holds a Bachelor of Science in applied pharmaceutical chemistry from the University of Guelph.

Dawn Richards – Patient Perspective

Dawn Richards, PhD, lives with rheumatoid arthritis and osteoarthritis. At Five02 Labs Inc., she helps people and organizations design and execute initiatives that include patients as partners, using leading practices and tailored approaches. Some of her clients include Clinical Trials Ontario, the Canadian Institutes of Health Research Institute of Musculoskeletal Health and Arthritis, and the University Health Network. She has contributed to the literature and practice in patient engagement around compensation of patient partners, authorship with patient partners, recognizing patients as people with various skills and who lead fulfilling lives, and education around patient engagement in research. As a volunteer, Dawn is Vice President of the Canadian Arthritis Patient Alliance and a member of The British Medical Journal's Patient Advisory Panel.

Ambreen Sayani – Women's College Hospital

Dr. Ambreen Sayani, MD, PhD, is a scientist at the Women's College Research Institute, Women's College Hospital and an Assistant Professor (status) at the Institute of Health Policy, Management and Evaluation in the Dalla Lana School of Public Health at the University of Toronto. She is Principal Investigator for the Improving Cancer Care Equity Research Program that aims to improve cancer outcomes for all populations groups by promoting equitable cancer prevention, early detection and access to high quality care. Dr. Sayani holds a six-year, transition-to-leadership stream career development award from the Canadian Institutes of Health Research. She is a health equity expert advisor for the Canadian Partnership Against Cancer, a member of the Medical Advisory Committee for the Canadian Cancer Survivor Network, co-founder of Equity Mobilizing Partnerships in Community (EMPaCT).

Jim Silvius – Canadian Medication Appropriateness and Deprescribing Network

Jim Silvius is the co-founder of the Canadian Medication Appropriateness and Deprescribing Network (CADeN) and is a Clinical Associate Professor in the Department of Medicine, Division of Geriatric Medicine at the University of Calgary. He is also a senior medical director for Provincial Seniors & Continuing Care of the Alberta Health Services (AHS); a position he has held since its formation.

Cara Tannenbaum – Ex-Officio Member – Health Canada Departmental Science Advisor

Dr. Cara Tannenbaum is a researcher and physician in the field of geriatrics, women's health and gender research. Cara co-founded CADeN and continues her work on deprescribing trials involving patients, pharmacists and primary care practitioners across Canada. She is a professor in the Faculty of Medicine at the Université de Montréal, and has been the Scientific Director of the Canadian Institute of Health Research Institute of Gender & Health.

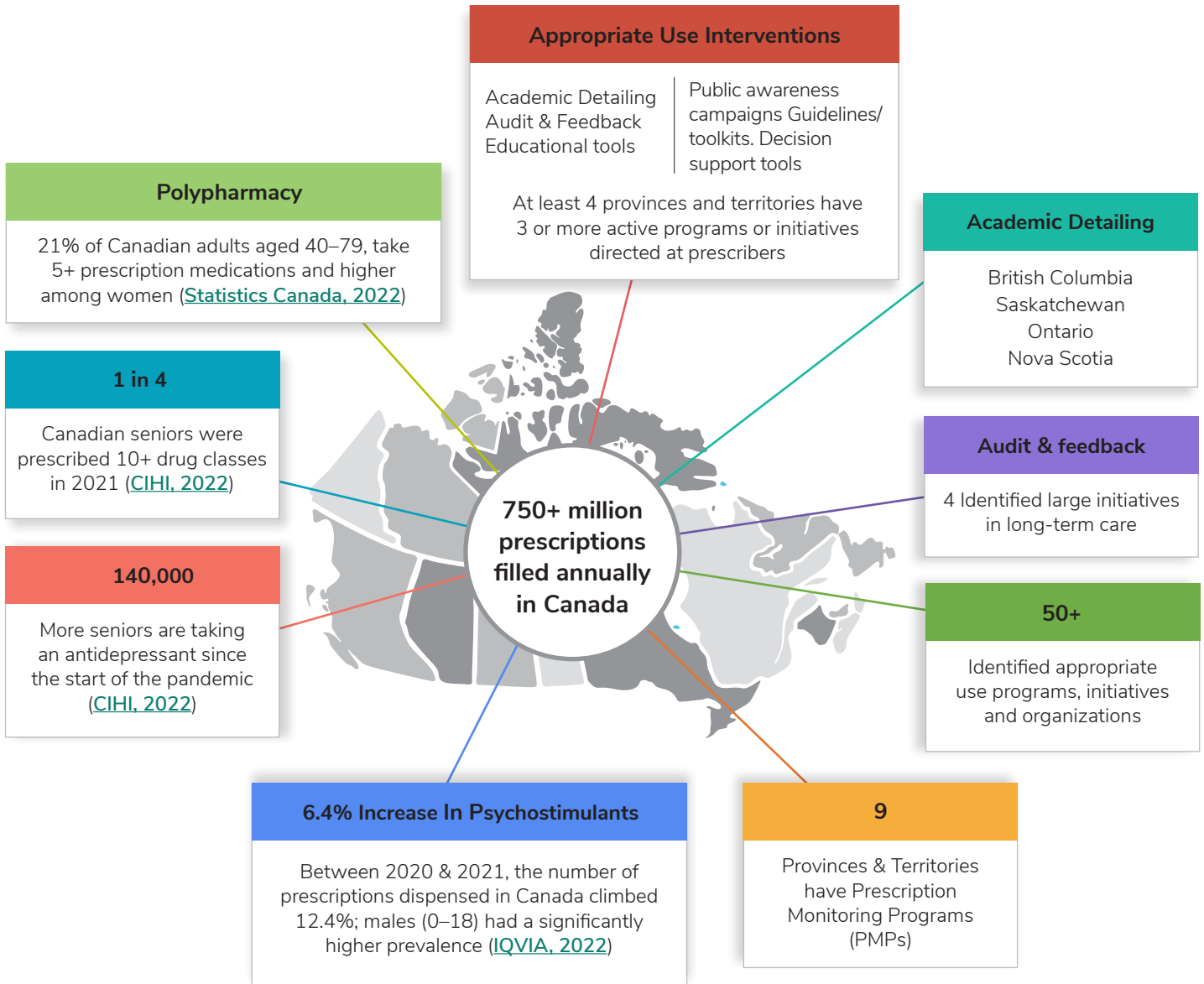
ANNEX B: APPROPRIATE USE PARTNERS

A pan-Canadian appropriate use strategy involves many partners, each playing an important role.

- **Patients and people with lived and living experience** – At the forefront of any strategy must be patients and those with lived and living experience, as safeguarding their health is at the centre of medication appropriateness. Their perspectives and experiences must be embedded every step of the way. This includes patients with rare diseases, pediatric patients, and end-of-life care and rural or remote health care patients. At the same time, they also need to share responsibility to consider appropriateness, including asking questions about their medications and ensuring those medications are only used as directed and when needed.
- **Health care professionals** – Anyone with specialized medical training directly involved in patient care (e.g., doctors, nurses, pharmacists) is needed to commit to shared decision making and embody the principles of appropriate use.
- **Educating and regulating bodies governing health professionals** – These entities share responsibility for promoting medication appropriateness in training materials and in clinical practice for health professionals.
- **Health service delivery organizations** – Hospitals, long term care homes, primary care clinics, rehabilitation centres, diagnostic and treatment centres, community health centres, birthing centres, regional and local health authorities – these types of organizations and their decision makers need to recognize they have a role in fostering a health care culture that supports appropriate use.
- **Governments** – Federal, provincial, territorial, municipal and Indigenous governments can provide support by taking accountability for decisions that impact appropriate use. Accountability should not rest only with those working in quality improvement units or health and safety departments to spearhead initiatives. There is also a role in supporting improved medication appropriateness for those involved in information management and technology, as well as drug plan management and care delivery.
- **Health researchers, data surveillance and analytics experts** – Those who generate and share knowledge, analyze data and monitor trends are pivotal to delivering evidence-informed strategies and approaches to improve appropriate prescribing and appropriate use of medications. Their involvement helps build credibility and trust to support even greater buy-in and commitment from partners.

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- **Pan-Canadian health organizations**²¹ – Pan-Canadian health organizations are independent, self-governed, not-for-profit organizations operating as arm’s length bodies from the federal and provincial governments. These organizations collaborate with governments, health providers, researchers, patients, people with lived and living experience and the public to support health systems. Successful implementation of a pan-Canadian approach to appropriate use will require their collaboration.
 - **Patient organizations, health foundations, associations** – Organizations representing patients, people with lived and living experience, disease groups, as well as health charities and their philanthropic partners can help by sharing and spreading the importance of appropriate medication use on behalf of those for whom they advocate or represent.
 - **Private sector partners and industry** – Insurers, pharmaceutical companies and pharmacies have an opportunity to support appropriate use through actions and decisions that reflect the best interests of patients, people with lived and living experience and the broader health system.
 - **Community health and social services organizations** – Those working in community settings such as institutions, home care, seniors care, family services, newcomer programs, Indigenous outreach, and mental health and addictions support are needed as strong allies to bring equity to appropriate use.
 - **Indigenous communities and organizations** – The mistreatment and racism directed toward Indigenous peoples in the health system is well documented. As Canada continues to build a path toward reconciliation, it is critical that Indigenous voices are represented and heard when implementing any strategy that seeks to better the treatment and outcomes of all who interact with the health system.
 - **Environment and climate change organizations and networks** – Those who monitor environmental damage and their health impacts can help spread awareness of their relationship to low-value medication use. Collaboration with these partners enables a better understanding of how efforts to improve medication appropriateness can also help the environment.
 - **Public** – A broad category but nonetheless a necessary one. A pan-Canadian solution cannot be successful without support from a more extensive societal network. This includes those who interact with the health system as well as those who do not, because building awareness of why appropriate use is important, and what the public can do to contribute, benefits everyone.

ANNEX C: APPROPRIATE USE AT A GLANCE



* The information presented is a high-level snapshot of the current Appropriate Use landscape; additional programs and initiatives at the provincial and local level exist across Canada

APPROPRIATE USE PROGRAM & INITIATIVES IN CANADA

- ▶ In Ontario alone, Centre for Effective Practice's work reaches over **18,000 healthcare providers each year**
- ▶ Deprescribing.org's website has been **viewed over 1.5 million times**; their app has been downloaded over **9000 times**
- ▶ Choosing Wisely Canada is part of a global movement active in more than **20 countries** (e.g., Australia, United Kingdom, Brazil, Japan, New Zealand)
- ▶ Ontario Health's MyPractice reports each over **6100 eligible physicians and organizations**
- ▶ Therapeutics Initiative have published over **150 Therapeutics letters** and reviewed over 300 drugs and drug classes
- ▶ The Programme d'évaluation de la personnalisation des soins, **decreased by 50%** the number of seniors who used **10 or more medications**.

Nationwide Programs & Initiatives

[Choosing Wisely Canada](#)

A national voice for reducing unnecessary tests and treatments.

[Canadian Medication Appropriateness and Deprescribing Network](#)

The promotion of medication safety, deprescribing and safer alternatives to risky medications.

[Deprescribing.org](#)

Information, guidelines, and tools aimed to help patients and providers participate in safe deprescribing.

[The Institute for Safe Medication Practices Canada](#)

Advancing medication safety through partnerships with organizations, practitioners, consumers, and caregivers.

[Healthcare Excellence Canada](#)

Providing capacity to support partners for improvements in patient safety; Appropriate Use of Antipsychotics approach.

[Canada's Drug Agency \(Formerly Canadian Agency for Drugs and Technologies in Health\)](#)

Delivering independent information and advice about the optimal use of drugs, devices and clinical interventions.

[MedSafer](#)

An electronic deprescribing decision support tool guiding safe and successful medication deprescribing in older adults.

[MedStopper](#)

A tool to help clinicians and patients make decisions about reducing or stopping medications.

[The Foundation for Medical Practice Education](#)

Practice-Based Learning Programs developed by and for family physicians, including prescribing as a component of work.

[Patients Experience Evidence Research](#)

A primary care led evidence-based medicine team focused on providing relevant evidence to family physicians and primary care providers.

British Columbia

[Therapeutics Initiative](#)

Providing up-to-date, independent, and evidence-based information on healthcare interventions.

[Provincial Academic Detailing](#)

Academic detailing sessions for healthcare professionals to promote the optimization of best prescribing practices.

[Mini Practice Profiles](#)

A comparative tool of a physician's practice with other colleagues.

Saskatchewan

[RxFiles](#)

An academic detailing program providing objective comparative drug information to clinicians.

Alberta

[Appropriate Prescribing & Medication Use Strategy for Older Albertans](#)

A guide to support medication optimization to improve the quality of life and safety for older adults.

[Appropriate Use of Antipsychotics Toolkit](#)

The use of antipsychotic medication in the management of patients with dementia in the LTC settings.

[College of Physicians and Surgeons of Alberta](#)

MD Snapshot-Prescribing is a tool to improve physician prescribing awareness and support patient care.

Manitoba

[The College of Physicians & Surgeons of Manitoba](#)

The Prescribing Practices Program has several quality improvement initiatives related to the potential abuse in prescribing.

Quebec

[The Institut national d'excellence en santé et en services sociaux](#)

Optimal use guidelines, clinical tools, algorithms and related reports.

[Programme d'évaluation de la personnalisation des soins](#)

A long-term care initiative aimed at reducing the number of medications that are not appropriate.

Nova Scotia

[Dalhousie Academic Detailing Service](#)

Academic detailing sessions with local specialists and an advisory panel of four family physicians.

[MySleepwell](#)

Recommendations to improve sleeping habits without the use of medications and safely stop the use of sleeping pills.

Newfoundland

[SaferMedsNL](#)

Promoting safe and effective medication use in relation to sleeping pills and acid reflux medication.

Ontario

[Ontario Health](#)

[\(Formerly Health Quality Ontario\)](#)

MyPractice reports are personalized information developed to give physicians data about their practice and share change ideas.

[Centre for Effective Practice](#)

Knowledge translation for primary care; evidence-based tools, resources, and programs.

[Ontario Pharmacy Evidence Network](#)

A network of researchers and knowledge users dedicated to improving health through better medication management.

[TaperMD](#)

A tool that integrates healthcare information for healthcare providers to optimize care decisions and save time.

[Structured Process Informed by Data, Evidence and Research](#)

An approach to improve care by empowering patients and physicians to have discussions about the management of their medications.

[The Audit & Feedback MetaLab \(The Ottawa Hospital\)](#)

A researcher led program to improve healthcare outcomes by optimizing performance with Audit & Feedback in long-term care.





ENDNOTES

- 1 In this report, the term lived and living experience is used to refer to those who have experience in health care and health system decision making (caregivers, patient advocates etc.).
- 2 Health Canada. (2023, December 08). *Addressing Racism and Discrimination in Canada's Health Systems Program - What we do*. Retrieved from Government of Canada: www.canada.ca/en/health-canada/corporate/about-health-canada/funding/addressing-racism-discrimination-canada-health-systems-program.html.
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- 5 The World Health Organization describes antimicrobial resistance as what occurs when bacteria, viruses, fungi and parasites no longer respond to antimicrobial medicines. It is largely driven by misuse and overuse of antimicrobial drugs.
- 6 The escalation of opioid-related harms related to problematic opioid prescribing and use.
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 - 19 Ramage-Morin, P. L. (2009). *Medication use among senior Canadians*. Statistics Canada.
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 - 21 The suite of pan-Canadian health organizations include: Canadian Centre on Substance Use and Addiction; Canadian Agency for Drugs and Technologies in Health; Canadian Institute for Health Information; Canada Health Infoway; Canadian Partnership Against Cancer; Mental Health Commission of Canada; and Healthcare Excellence Canada.