Citizen Brief

Achieving Greater Impact from Investments in Medicine in Canada

16 August 2019





EVIDENCE >> INSIGHT >> ACTION

The McMaster Health Forum's goal is to generate action on the pressing health-system issues of our time, based on the best available research evidence and systematically elicited citizen values and stakeholder insights. We aim to strengthen health systems – locally, nationally, and internationally – and get the right programs, services and drugs to the people who need them.

About citizen panels

A citizen panel is an innovative way to seek public input on high-priority issues. Each panel brings together 14-16 citizens from all walks of life. Panel members share their ideas and experiences on an issue, and learn from research evidence and from the view of others. A citizen panel can be used to elicit the values that citizens feel should inform future decisions about an issue, as well as to reveal new understandings about an issue and spark insights about how it should be addressed.

About this brief

This brief was produced by the McMaster Health Forum to serve as the basis for discussions by the citizen panel on how to achieve greater impact from investments in medicine in Canada.

This brief includes information on this topic, including what is known about:

- the underlying problem;
- three possible elements of an approach to addressing the problem; and
- potential barriers and facilitators to implement these elements.

This brief does not contain recommendations, which would have required the authors to make judgments based on their personal values and preferences.

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Key Messages

What's the problem?

Three factors make it hard for Canadians to benefit as much as they could from investments in medicine in Canada:

- 1) patients and providers are not supported to appropriately use medicines;
- 2) many patients cannot access or afford the medicines they need; and
- 3) decision-makers have missed opportunities to support the use of accessible and affordable medicines.

What do we know about elements of a potentially comprehensive approach for addressing the problem?

- Element 1: Supporting patients and providers to appropriately use medicines
 - This element focuses on different supports that could be put in place to promote appropriate prescribing of and adherence to medicines
 - This could mean choosing the right mix of patient-targeted strategies (for example, counselling or daily treatment support), ensuring patients are aware of the medicines that are most appropriate for managing their condition, and choosing the right mix of provider-targeted strategies (for example, education, local opinion leaders, audit and feedback).
- Element 2: Making sure patients can access and afford appropriate medicines
 - o This element focuses on how to provide patients with improved access to, while ensuring the affordability of, medicines for patients
 - This includes determining how to expand coverage (for example whether to fill existing gaps or to establish universal access), determining which medicines will be covered (for example an entire list of essential medicines or a subset of the list), and determining what proportion of costs will be publicly covered.
- **Element 3:** Enabling decision-makers to make small yet rapid changes to support the appropriate use of accessible and affordable medicines
 - o This element focuses on how to support the health system to try new approaches and to make small yet rapid changes to the way in which medicines are prescribed, paid for, and provided.

What implementation considerations need to be kept in mind?

- One of the biggest barriers is the difficulty of coordinating and planning changes across the federal, provincial and territorial levels in Canada
- The recent attention on national pharmacare and the upcoming federal election likely represent the greatest opportunities to address the issue.

Questions for the citizen panel

>> We want to hear your views about a problem, three elements of a potentially comprehensive approach to address it and about implementation

Box 1: Questions for citizens about the problem

Questions related to the problem

- What has worked well and what has been difficult in determining whether medicines are right for you?
 - O Were you provided with enough information?
 - O Were other options, such as over-the-counter medicines, discussed?
 - o Did the provider make clear to you why they were prescribing the medicine?
- Have you had difficulty affording or been unable to afford the medicines you or your family members need?
- Have you had challenges physically accessing the medicines you or your family members need (for example, were you unable to see a provider, or get to a pharmacy)?

Box 2: Questions for citizens about elements for addressing the problem and about implementation

Questions related to the elements of a potentially comprehensive approach to address the problem

- Element 1 Supporting patients and providers to appropriately use medicines
 - What information would help you to make the best decisions about your medicines? How should it be provided?
 - What would help you to take medicines in the way the provider prescribed (for example, taking the right amount and at right time of day)?
 - What do you think providers need to ensure they're prescribing the right medicines for their patients (or de-prescribing inappropriate ones)?
- Element 2 Making sure patients can access and afford appropriate medicines
 - O Do you think decision-makers should prioritize expanding one or more of: who is covered (for example, everyone or certain populations such as older adults or children); what medicines are covered (for example, everything or a set of essential medicines); or how much of the costs are covered publicly?
- Element 3 Enabling decision-makers to make small yet rapid changes to support the appropriate use of accessible and affordable medicines
 - O Do you think the health system should commit to making small yet rapid improvements? If so, where do you think the most emphasis is needed and how should patients and other citizens be engaged?

Question related to implementation considerations

- What are the biggest barriers to achieving greater impact from investments in medicine in Canada?
- What changes are you seeing that can help open a 'window of opportunity' for doing better?

Box 3: Glossary

Access

The extent to which an individual who needs care and services is able to receive them.

Adherence

When a person follows a recommended course of treatment (for example, taking all prescribed medicines or the right dose).

De-prescribing

The process of intentionally stopping a prescribed medicine or reducing its dose to improve the person's health or reduce the risk of adverse side effects.

Essential medicine

The medicines that meet the priority needs of the population. They are selected based on their ability to treat priority health conditions (determined by individual health systems) and on evidence of their efficacy, safety and general cost-effectiveness. These are medicines that people should have access to at all times, in sufficient amounts, and should be affordable.

Pharmacare

In this brief, pharmacare refers to providing national public insurance coverage that removes some or all financial barriers in order to ensure people can access necessary prescription medicines.

Prescription medicine

Any prescribed substance intended for use in the diagnosis, cure, mitigation, treatment or prevention of disease (also referred to as medication, drugs and pharmaceuticals).

Prescriber

A person who has the legal capacity to prescribe medicines (usually a physician, nurse practitioner or pharmacist).



Improving access, affordability and appropriate use of prescription medicines is important if we want to ensure patients in Canada get the most benefit from investments in medicines.

The context: Why is it important to achieve greater impact from investments in medicine?

Prescription medicines are an increasingly important element of the care provided to patients. To get the most value for the money that we spend on them (either through out-of-pocket, payroll contributions, or taxes, which we collectively refer to in this brief as 'investments in medicines'), they need to be accessible, affordable, and used appropriately (by both patients and their providers).

Challenges associated with improving access to, and ensuring affordability of, prescription medicines in Canada have received a lot of attention, at both provincial and national levels. While the need for accessible and affordable medicines is recognized around the world, Canada is one of only a few high-income countries that has not established public coverage for medicines for all of its citizens. This is despite providing similar 'universal' access to other health services such as those provided by physicians and in hospitals across provincial and territorial health systems.(1; 2)

Instead, to pay for medicines most Canadians rely on a mix of private and public insurance to cover some – but not all – of the costs of the prescription medicines they need (see Box 4). Even with these public and private mechanisms in place across the country, many Canadians are uninsured (as in, they have no insurance) or are under-insured (as in, they must pay a significant amount out-of-pocket) for the costs of the prescribed medicines they need.(2-4)

There have been numerous calls to include prescription medicines as part of our universal health system since the mid 1960s. Most recently, the federal government appointed an advisory council to make a recommendation on whether and how to establish national pharmacare. The advisory council released a report in June 2019 and called for the development of a universal, single-payer, public pharmacare program to be established by 2027 in Canada.

While establishing national pharmacare could help all Canadians get the medicines they need and at a price they can afford, there are other changes that need to be considered in order to enable our provincial and territorial health systems to get the most benefit from any investments made – both present and future – in prescription medicines (regardless of who pays). These include making sure that Canadians are appropriately using prescription medicines. Throughout this document we use the term 'appropriate use' to mean that patients are receiving medicines that effectively treat their conditions, in the right amount, for the right amount of time, and at the lowest cost to them and their community.

Making sure medicines are used appropriately requires support for the patients taking the medicines as well as for the providers who prescribe them. This includes efforts that lead to the best decisions about the types of medicines chosen as well as about how chosen medicines are included throughout a patient's course of treatment. Finally, getting the most out of prescription medicines also requires decision-makers to commit to making small yet rapid changes to health systems in ways that constantly increase the benefits patients get from prescription medicines.

Box 4: Provincial and federal mechanisms to cover prescription medicines in Canada

- Despite no national pharmacare program currently in place in Canada, there are a number of public programs at the provincial and federal levels that help to reduce the cost of prescription drugs for those with or without sufficient private insurance coverage. For example, at the provincial level, some programs include:
 - the Fair PharmaCare program in British Columbia which provides income-based assistance to cover the costs of eligible prescription drugs, certain medical supplies and pharmacy services;
 - the Ontario Drug Benefit program for older adults and the Trillium Drug Program for those with very high drug costs relative to income in Ontario;
 - the Quebec Public Prescription Drug Insurance Plan for people without access to a private plan in Quebec; and
 - Nova Scotia Pharmacare which provides assistance for seniors, those with very high drug costs, and those receiving palliative care.
- Similarly, there are federal public drug programs that provide coverage to specific populations, such as:
 - the First Nations and Inuit Health Branch's Non-Insured Health Benefits program for First Nations peoples and eligible Inuit;
 - the Department of National Defence's Spectrum of Care program and the Canadian Armed Forces Drug Benefit List for members of the Canadian Forces and their dependents;
 - the Veterans Affairs Canada's Programs of Choice and Health Care Benefits Program for qualified veterans;
 - the Public Service Health Care Plan for members of the Royal Canadian Mounted Police; and
 - the Correctional Service Canada's Health Services Program for federal offenders.
- Many other Canadians use private insurance plans paid for either in whole or in part by employers as part of work-related extended health-benefits packages or pay out-ofpocket for medicines.



Many Canadians continue to face challenges adhering to, accessing, and affording the medicines they need.

The problem: Why is it challenging to achieve greater impact from investments in medicine?

We identified three factors making it hard for Canadians to benefit as much as they could from investments in medicine in Canada:

- 1) patients and providers are not supported to appropriately use medicines;
- 2) many patients cannot access or afford the medicines they need; and
- 3) decision-makers have missed opportunities to support the use of accessible and affordable medicines.

Patients and providers are not supported to appropriately use medicines

Prescription medicines are often used inappropriately – they may be underused (for example, not taken when needed), overused (for example, taken when not needed) and

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misused (for example, not taken according to the prescriber's recommendations). There are at least three reasons for inappropriate use:

- 1) providers are not adequately supported when writing prescriptions;
- 2) patients are not adequately supported to adhere to their medication; and
- 3) providers do not continuously re-evaluate the patient's medication(s) (and de-prescribe medicines if necessary).

These reasons are further discussed below.

Providers are not adequately supported when writing prescriptions

There are many different types of providers making treatment decisions that involve prescribing medicines to patients. These include dentists, nurse practitioners, pharmacists (in some provinces), and physicians. Ensuring that all of these health professionals have upto-date knowledge and skills related to prescribing can be a challenge. Without the knowledge, skills and attitudes that are supportive of appropriate prescribing, providers may not make the best decisions possible.

Further, the prescribing practices of providers may be complicated by five factors:

- 1) it is difficult to change habits and routines if providers are used to prescribing certain medicines over others;
- 2) provincial formularies (the lists of medicines that can be prescribed) contain thousands of medicines and prescribers are likely not familiar with all of the products and dosages listed;
- 3) the right tools are not always in place to support effective prescribing, such as decisionsupport tools that may help providers to consider the full range of options;
- 4) many different providers may be prescribing medicines for one patient and may be unaware of each other's prescriptions; and
- 5) the little information or data that is collected on the prescribing habits of professionals isn't routinely used to provide feedback to prescribers about the appropriateness of their decisions or used to contribute to produce research in 'real time.'(5)

Patients are not adequately supported to adhere to their medication

Ensuring the right medicines are prescribed is only the first step in managing the treatment of patients with medicines. Once medicines are prescribed, patients are responsible for taking them appropriately and as directed. However, poor adherence to medications

remains a significant challenge. It is estimated that each year approximately 30% of prescriptions generated in Canada go unfilled by patients.(6)

Reasons for patients not adhering to their prescription range widely, but in general include:

- individual-level factors, such as denying the condition, forgetting to take medicines, mental health or addictions challenges, or cultural or alternative beliefs (for example, preferring to rely on alternative therapies instead of conventional prescription or overthe-counter medicines);
- treatment-related factors, such as the complexity of the treatment, side effects of the medication, inconvenience of taking the medicine or filling the prescription, cost of the medicine, or time; and
- problems that arise as a result of a poor practitioner-patient relationship (for example, a lack of patient trust in the provider or lack of communication between patient and prescriber about patient preferences).

Some individuals are at a particularly high risk of not adhering to medicines. In particular, there are often concerns raised that those who require many types of medicines – such as seniors and those living with multiple chronic conditions – have additional challenges in adhering to the medicines prescribed to them.

Providers do not continuously re-evaluate the patient's medication

Finally, the third factor that contributes to the inappropriate use of medicines relates to deprescribing. De-prescribing is the process of re-evaluating the medicines a patient is on to ensure each is still necessary and working effectively. This ensures that the way in which medicines are used evolves alongside an individual's changing health needs. This key step in patient care is often forgotten; instead, care tends to focus on starting medications rather than reducing or stopping them. Ideally, the de-prescribing process involves a full review of the medicines prescribed to a patient and deciding which can be stopped or tapered. Without this step, many patients may be inappropriately using medicines, which can potentially be harmful to them.(7)

There are three main reasons that may limit the extent to which providers engage in deprescribing:

1) materials to help them decide about the best treatment for patients are often created for single conditions, meaning that providers may have a hard time applying them to medicines for patients with multiple conditions;

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- 2) patients with many conditions might have multiple providers prescribing medicines to them, and providers may not want to challenge the decisions of their colleagues during the de-prescribing process (and in some cases, may not even know about the medicines others have prescribed to the same patient); and
- 3) providers are often very busy and have many competing demands for their time, which can lead them to view de-prescribing as an unnecessarily time-consuming process.

Many patients cannot access or afford the medicines they need

Prescription medicines in Canada are among the most expensive in the world. Comparatively, Canadian health systems pay about 30% more for the medicines they use compared to what health systems pay in many comparable countries.(8) This is concerning in terms of the costs to the health system and to individuals.

As mentioned earlier, existing public programs at the federal and provincial levels only cover select populations or conditions, leaving the rest of Canadians to rely on private insurance coverage or paying out-of-pocket. It is estimated that 1.7 million Canadians face cost-related barriers in accessing their prescriptions, which can reduce their ability to benefit from treatments - which may lead to other health problems over time. Further, when individuals do not have access to the right medicines because of financial constraints, they may end up using other health services to treat their condition(s) instead. For example, diabetic patients who restrict the amount of insulin they use and take less than they are supposed to as a result of cost may end up with additional complications such as kidney disease and loss of vision. This could result in them accessing additional health services to deal with issues that may have been avoided with more appropriate use of their prescribed treatment. While this may be cheaper for the individual, the potential for undesirable health consequences can negatively affect their well-being, and is often more expensive for the health system.(8; 9) It is important to note that it is not only those who have no insurance who experience problems with access and affordability, but also those who are underinsured.

Decision-makers have missed opportunities to support the appropriate use of accessible and affordable medicines

While calls for national pharmacare have been increasing in the lead up to the federal election, there has been little discussion about what can be done in the meantime to support getting the most value from investments in prescription medicines – regardless of whether a national pharmacare plan is introduced. Currently, health systems around the country have not been set up to try new approaches, to rapidly evaluate them in 'real time,' and to quickly adjust the course when necessary. This will be particularly important in the implementation of national pharmacare or in any effort to better support providers and patients to appropriately use prescription medicines, as it is unlikely we get all changes right from the beginning. As such, cues will be needed to indicate where changes should be made.

Ensuring the system is able to do this will require filling existing gaps, including:

- ensuring all organizations in the system with the capacity to do so are able to produce independent research about medicines in a timely way;
- supporting patients, providers and policymakers to use data and research evidence to inform their decisions;
- creating a culture that supports small yet rapid improvements, which could include mechanisms to foster teamwork and collaboration across the programs and organizations already involved in the area of prescription drugs; and
- fostering the skills needed to make these rapid improvements, such as data and research literacy, co-design with patients, and leadership skills.

Questions to consider:

- What has worked well and what has been difficult in determining whether medicines are right for you?
 - o Were you provided with enough information?
 - o Were other options, such as over-the-counter medicines, discussed?
 - o Were you engaged in the process of prescribing the medicine?
- Have you ever had difficulty affording or been unable to afford the medicines you or your family members need?
- Have you ever had challenges physically accessing the medicines you or your family members need (for example, were you unable to see a provider or get to a pharmacy)?



Achieving greater impact from investments in medicine will require the consideration of a number of elements

Elements of an approach to address the problem

>> To promote discussion about the pros and cons of potential solutions, we have selected three elements of an approach to achieving greater impact from investments in medicine

Many approaches could be selected as a starting point for discussion. We have selected the following three elements of an approach for which we are seeking input:

- 1. supporting patients and providers to appropriately use medicines;
- 2. making sure patients can access and afford appropriate medicines; and
- 3. enabling decision-makers to make small yet rapid changes to support the appropriate use of accessible and affordable medicines.

These elements should not be considered separately. Instead, each should be considered as contributing to a potentially comprehensive approach to addressing the problem. New elements could also emerge during the discussions. Box 5 below summarizes how research evidence has been identified, selected and synthesized for each element.

Box 5: Identification, selection and synthesis of research evidence presented in this brief

- Whenever possible, we describe what is known about each element based on systematic reviews.
- A systematic review is a summary of all the studies looking at a specific topic.
- A systematic review uses very rigorous methods to identify, select and appraise the quality of all the studies and to summarize the key findings from these studies.
- A systematic review gives a much more complete and reliable picture of the key research findings, as opposed to looking at just a few individual studies.
- We identified systematic reviews in Health Systems Evidence
 (www.healthsystemsevidence.org). Health Systems Evidence is the world's most
 comprehensive database of research evidence on health systems.
- A systematic review was included if it was relevant to one of the elements covered in the brief.
- We then summarized the key findings from all the relevant systematic reviews.

Element 1 — Supporting patients and providers to appropriately use medicines

Overview

This element focuses on ensuring patients are aware of the medicines that are most appropriate for managing their conditions, on helping them adhere to them, as well as on supporting appropriate prescribing by choosing the right mix of provider-targeted strategies. This element could include:

- ensuring patients are aware of the medicines that are most appropriate for managing their condition and engaging them in decision-making about their condition and how it is treated;
- choosing the right mix of promising patient-targeted strategies to improve adherence to prescription medicines, including:
 - o tailored ongoing support from allied health professionals,
 - o education,
 - o counselling (including motivation interviewing or cognitive behavioural therapy);
 - o daily treatment support, and
 - o support from family or peers; and
- supporting appropriate prescribing by choosing the right mix of provider-targeted strategies, such as:
 - o education (materials, meetings, outreach),
 - o local opinion leaders (using those individuals thought to be credible and trustworthy to share information about prescribing),
 - o local consensus processes (for example, bringing together health providers to ensure they agree on guidelines and prescribing practices),
 - o peer review (evaluation of one provider's prescribing habits by another),
 - o audit and feedback (providing a summary of a provider's performance to them to allow them to assess their own performance),
 - o reminders and prompts,
 - o tailored interventions to support individual providers with their prescribing,
 - o patient-mediated interventions (interventions where patients provide those prescribing medicines with more information about themselves and their medical history), and
 - o multifaceted interventions.

Evidence and questions to consider during your deliberations are provided below.

Evidence to consider

We identified 33 systematic reviews relating to element 1. The majority related to provider-targeted strategies. Overall, we found significant benefits in the adherence to medicines and the processes of prescribing practices; however, improvements to patient health outcomes were not consistently reported.

We present a more detailed summary of the evidence in Table 1.

Table 1. Types of activities that could be included in element 1

71	activities that could be included in element i				
Area of focus	 Each of the following interventions was found to increase patient adherence compared to usual care: education provided by multidisciplinary teams; enhanced pharmacy services such as face-to-face discussions with pharmacists and pharmacist-led interventions (for example, education about a particular medicine); and case management.(10) 				
Ensuring patients are aware of the medicines that are most appropriate for managing their condition, and engaging them in decision-making about their condition and how it is treated					
Choosing the right mix of promising patient-targeted strategies found to help improve adherence to prescription medicines	 Each of the following interventions was found to increase patient adherence compared to usual care: training of health professionals to identify patient non-adherence improved adherence rates when such training was combined with another strategy;(11) reminder packaging (such as those with days of the week labelled on them) for medicines was found to be effective under some conditions but not under others;(12; 13) and some eHealth and mobile health interventions such as web-based monitoring and telemedicine support improved medication adherence (14; 15). In particular the use of two-way text messaging reminders between patients and their providers significantly improved adherence.(14; 15) 				
Supporting appropriate prescribing by choosing the right mix of promising provider-targeted strategies	 We found evidence supporting the use of a range of approaches targeting providers including education, audit and feedback, medication reviews and case conferencing, patient-mediated interventions (e.g., supporting the patient to use decision aids), tailored interventions and computer-mediated interventions. Improvements in the processes of care (for example, improved prescribing and adhering to best practices in medicines) were found for educational outreach visits, 				

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- audit and feedback, medication reviews and case conferencing, and for select computer interventions including computerized reminders and a barcode administration system on medicines.(16-26)
- Only computerized drug dosage advice resulted in improved health outcomes, including a reduction in the time to therapeutic stabilization and reduced risk of toxic drug levels among patients, following the intervention.(23)
- Evidence also showed no or uncertain effects from patient-mediated interventions, printed educational materials, tailored interventions, and computerized prescribing.(22; 25; 27-29)

Questions to consider

- What information would help you to make the best decisions about your medicines? How should it be provided?
- What would help you to take medications in the way the provider prescribed (for example, taking the right amount and at right time of day)?
- What do you think providers need to ensure they're prescribing the right medicines for their patients (or de-prescribing inappropriate ones)?

Element 2 — Making sure patients can access and afford appropriate medicines

Overview

This element focuses on determining how to expand coverage to more Canadians and decide which medicines will be covered and what proportion of costs will be publicly covered. This element could include:

- determining how to expand coverage to more Canadians,
 - o for example, filling existing gaps between public and private coverage by including Canadians who aren't covered within existing plans or by a private plan or by establishing universal access to every Canadian;
- determining which medicines will be covered,
 - o for example, covering an entire list of essential medicines or covering a sub-set of the list of essential medicines; and
- determining what proportion of costs will be publicly covered.

Evidence and questions to consider during your deliberations are provided below.

Evidence to consider

We identified seven systematic reviews, five of which related to determining what proportion of costs will be covered, and generally found that increases in the proportion of costs paid out-of-pocket result in greater use of other health services

We present a more detailed summary of the evidence in Table 2.

Table 2. Types of activities that could be included in element 2

Area of focus	Types of activities				
Determining how to expand coverage to more Canadians	We did not identify any reviews related to mechanisms to expand coverage; however, we found evidence that the expansion of prescription drug coverage reduces the use of other services.(30)				
Determining which medicines will be covered	 Prior authorization policies, which guide how an insurer will determine whether or not they will cover the costs of the medicine, reduced the unnecessary use of gastric-acid suppressants and non-steroid anti-inflammatory drugs.(31) 				
Determining what proportion of costs will be covered	 Generally, the evidence shows that increasing out-of-pocket payments for medicines deters patients from filling prescriptions and led to increased demand for select health services, including outpatient and inpatient services, hospitalization, and emergency-room visits.(32) Similarly, restrictive caps on medicine, fixed co-payments, and pharmaceutical budget caps reduced the amount paid by insurers, but increased the utilization of other health services.(33-35) However, there was evidence to support the use of reference drug pricing (where coverage is determined based on the price of a comparable generic drug with additional payments required for other non-generic medicines) and its ability to increase the use of generic drugs and reduce drug expenditures for insurers.(36) 				

Questions to consider

• Do you think decision-makers should prioritize expanding one or more of the following: who is covered (for example, everyone or certain populations such as older adults); what medicines are covered (for example, everything or a set of essential medicines); or how much of the costs are covered publicly (for example, everything or a set of essential medicines)?

Element 3 — Enabling decision-makers to make small yet rapid changes to support the appropriate use of accessible and affordable medicines

Overview

This element is focused on how to support the health system to try new approaches and to make small yet rapid changes to the way in which medicines are prescribed, paid for and provided. Decision-makers have found these types of changes require action within seven areas:

- 1) engaging people and patients in decision-making about how best to improve programs and services delivering medicines;
- 2) capturing and sharing data related to medicines and their use;
- 3) ensuring organizations (for example, arm's-length agencies, researchers working at academic hospitals) in the system are able to produce research about medicines in a timely way;
- 4) supporting patients, providers and policymakers to use data and research to inform their decisions;
- 5) strengthening the health system to enable the four actions above;
- 6) creating a culture that supports small yet rapid improvements; and
- 7) fostering the skills needed to take all of these actions.(37)

Evidence and questions to consider during your deliberations are provided below.

Evidence to consider

We were unable to find any systematic reviews that directly address ways to make small yet rapid changes to the health system to improve the use of medicines.

Questions to consider

- Do you think the health system should commit to making small yet rapid improvements?
 - o If so, where do you think the most emphasis is needed and how should patients and other citizens be engaged?

Implementation considerations

We may face some barriers if we try to implement the three elements discussed above. These barriers may be related to different groups (for example, patients, the general public, health professionals), to specific organizations delivering care (for example, hospitals), or to specific aspects of a health system (for example, how care is financed). Some of these barriers could be overcome. However, other barriers could be so important that we would need to reconsider whether we should pursue some elements.

Perhaps one of the biggest barriers is the difficulty of coordinating and planning changes across the federal, provincial and territorial levels in Canada. This is difficult because it requires getting the consensus of many different stakeholders and organizations on where to invest resources to improve access to medicines. In addition, making changes to the coverage of prescription medicines (for example, who is covered, what is covered and what proportion of the cost is covered) will most likely be difficult because it will mean that some groups end up better off while others may need to make concessions, such as changing prescriptions, under the new program. Lastly, ensuring the appropriate use of prescription medicines will require difficult changes in the behaviours of patients and providers (for example, the prescription habits of providers and shifting the medicines that patients are provided).

Some factors could also facilitate the implementation of the three elements discussed previously. Sometimes, there may be a window of opportunity, a period of time during which there is a chance to do something. A window of opportunity could open as a result of a recent event that was highly publicized in the media, a crisis, a new technology emerging, a change in public opinion, or an upcoming election.

Factors that may contribute to opening a window of opportunity for implementing these elements include:

- a lot of political and public attention is currently being placed on the issue of prescription medicines in Canada particularly on the issue of national pharmacare with the release of the final report by the Advisory Council on the Implementation of National Pharmacare and is creating ongoing opportunities to consider not only how to make the right medicines accessible and affordable, but also about how to ensure they're used appropriately; and
- the upcoming federal election in the fall of 2019 will create new opportunities for policymakers and stakeholders to consider how these elements can be integrated into proposed plans for reform.

Questions to consider

- What do you think are the biggest barriers to achieving greater impact from investments in medicine in Canada?
- What do you think are the biggest opportunities for doing better?

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Conflict of interest

The authors declare that they have no professional or commercial interests relevant to the citizen brief. The funder played no role in the identification, selection, assessment, synthesis, or presentation of the research evidence profiled in the citizen brief.

Merit review

The citizen brief was reviewed by a small number of citizens, other stakeholders, policymakers and researchers in order to ensure its relevance and rigour.

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References

- 1. Wolfson MC, Morgan SG. How to pay for national pharmacare. *Canadian Medical Association Journal* 2018; 190(47): E1384-E1388.
- 2. Morgan SG, Li W, Yau B, Persaud N. Estimated effects of adding universal public coverage of an essential medicines list to existing public drug plans in Canada. *Canadian Medical Association Journal* 2017; 189(8): E295-E302.
- 3. Barnes S, Anderson L. Low earnings, unfilled prescriptions: employer-provided health benefit coverage in Canada. Toronto: Wellesley Institute; 2015.
- 4. Angus Reid Institute. Prescription drug access and affordability an issue for nearly a quarter of all Canadian households. Vancouver: Angus Reid Institute; 2015. http://angusreid.org/prescription-drugs-canada/ (accessed 13 June 2019).
- 5. Sketris I, Ingram EL, Lummis H. Optimal prescribing and medication use in Canada: Challenges and opportunities. Ottawa: Health Canada; 2007.
- 6. Gheorghiu B, Nayani S. Medication Non-adherence: Exploring the Tension Between Patient Safety and Patient Autonomy. Canada Health Infoway; 2018. https://www.infoway-inforoute.ca/en/what-we-do/blog/medication-management/7874-medication-non-adherence-exploring-the-tension-between-patient-safety-and-patient-autonomy (accessed 13 June 2019).
- 7. Reeve E, Thompson W, Farrell B. Deprescribing: A narrative review of the evidence and practical recommendations for recognizing opportunities and taking action. *European Journal of Internal Medicine* 2017; 38: 3-11.
- 8. Tamblyn R, Laprise R, Hanley JA, et al. Adverse events associated with prescription drug cost-sharing among poor and elderly persons. *Journal of the American Medical Association* 2001; 285(4): 421-9.
- 9. Shah BR, Booth GL, Lipscombe LL, Feig DS, Bhattacharyya OK, Bierman AS. Near equality in quality for medication utilization among older adults with diabetes with universal medication insurance in Ontario, Canada. *Journal of Evaluation and Clinical Practice* 2014; 20(2): 176-83.
- 10. Kuntz JL, Safford MM, Singh JA, et al. Patient-centered interventions to improve medication management and adherence: A qualitative review of research findings. *Patient Education and Counseling* 2014; 97(3): 310-326.
- 11. Conn VS, Ruppar TM, Enriquez M, Cooper PS, Chan KC. Healthcare provider targeted interventions to improve medication adherence: systematic review and meta-analysis. *International Journal of Clinical Practice* 2015; 69(8): 889-899.

- 12. Zedler BK, Kakad P, Colilla S, Murrelle L, Shah NR. Does Packaging with a Calendar Feature Improve Adherence to Self-Administered Medication for Long-Term Use? A Systematic Review. *Clinical Therapeutics* 2011; 33(1): 62-73.
- 13. Boeni F, Spinatsch E, Suter K, Hersberger KE, Arnet I. Effect of drug reminder packaging on medication adherence: a systematic review revealing research gaps. *Systematic Reviews* 2014; 3: 29-29.
- 14. Linn AJ, Vervloet M, van Dijk L, Smit EG, Van Weert JCM. Effects of eHealth interventions on medication adherence: a systematic review of the literature. *Journal of Medical Internet Research* 2011; 13(4): e103-e103.
- 15. Wald DS, Butt S, Bestwick JP. One-way Versus Two-way Text Messaging on Improving Medication Adherence: Meta-analysis of Randomized Trials. *The American Journal of Medicine* 2015; 128(10): 1139.e1-1139.e5.
- 16. Ivers N, Jamtvedt G, Flottorp S, et al. Audit and feedback: effects on professional practice and healthcare outcomes. *Cochrane Database of Systematic Reviews* 2012; (6).
- 17. Zaugg V, Korb-Savoldelli V, Durieux P, Sabatier B. Providing physicians with feedback on medication adherence for people with chronic diseases taking long-term medication. *Cochrane Database of Systematic Reviews* 2018; (1).
- 18. Arnold SR, Straus SE. Interventions to improve antibiotic prescribing practices in ambulatory care. *Cochrane Database of Systematic Reviews* 2005; (4).
- 19. O'Brien MA, Rogers S, Jamtvedt G, et al. Educational outreach visits: effects on professional practice and health care outcomes. *Cochrane Database of Systematic Reviews* 2007; (4).
- 20. Nkansah N, Mostovetsky O, Yu C, et al. Effect of outpatient pharmacists' non-dispensing roles on patient outcomes and prescribing patterns. *Cochrane Database of Systematic Reviews* 2010; (7).
- 21. Shojania KG, Jennings A, Mayhew A, Ramsay CR, Eccles MP, Grimshaw J. The effects of on-screen, point of care computer reminders on processes and outcomes of care. *Cochrane Database of Systematic Reviews* 2009; (3).
- 22. Arditi C, Rège-Walther M, Durieux P, Burnand B. Computer-generated reminders delivered on paper to healthcare professionals: effects on professional practice and healthcare outcomes. *Cochrane Database of Systematic Reviews* 2017; (7).
- 23. Gillaizeau F, Chan E, Trinquart L, et al. Computerized advice on drug dosage to improve prescribing practice. *Cochrane Database of Systematic Reviews* 2013; (11).
- 24. Davey P, Marwick CA, Scott CL, et al. Interventions to improve antibiotic prescribing practices for hospital inpatients. *Cochrane Database of Systematic Reviews* 2017; (2).

- 25. Maaskant JM, Vermeulen H, Apampa B, et al. Interventions for reducing medication errors in children in hospital. *Cochrane Database of Systematic Reviews* 2015; (3).
- 26. Santos NSD, Marengo LL, Moraes FdS, Barberato Filho S. Interventions to reduce the prescription of inappropriate medicines in older patients. *Revista de Saude Publica* 2019; 53: 7-7.
- 27. Giguère A, Légaré F, Grimshaw J, et al. Printed educational materials: effects on professional practice and healthcare outcomes. *Cochrane Database of Systematic Reviews* 2012; (10).
- 28. Baker R, Camosso-Stefinovic J, Gillies C, et al. Tailored interventions to address determinants of practice. *Cochrane Database of Systematic Reviews* 2015; (4).
- 29. Khalil H, Bell B, Chambers H, Sheikh A, Avery AJ. Professional, structural and organisational interventions in primary care for reducing medication errors. *Cochrane Database of Systematic Reviews* 2017; (10).
- 30. Kesselheim AS, Huybrechts KF, Choudhry NK, et al. Prescription drug insurance coverage and patient health outcomes: a systematic review. *American Journal of Public Health* 2015; 105(2): e17-e30.
- 31. Green CJ, Maclure M, Fortin PM, Ramsay CR, Aaserud M, Bardal S. Pharmaceutical policies: effects of restrictions on reimbursement. *Cochrane Database of Systematic Reviews* 2010; (8).
- 32. Kolasa K, Kowalczyk M. The effects of payments for pharmaceuticals: a systematic literature review. *Health Economics, Policy and Law* 2017; 14(3): 337-354.
- 33. Luiza VL, Chaves LA, Silva RM, et al. Pharmaceutical policies: effects of cap and copayment on rational use of medicines. *Cochrane Database of Systematic Reviews* 2015; (5).
- 34. Rashidian A, Omidvari AH, Vali Y, Sturm H, Oxman AD. Pharmaceutical policies: effects of financial incentives for prescribers. *Cochrane Database of Systematic Reviews* 2015; (8).
- 35. Sinnott S-J, Buckley C, O'Riordan D, Bradley C, Whelton H. The effect of copayments for prescriptions on adherence to prescription medicines in publicly insured populations; a systematic review and meta-analysis. *PloS One* 2013; 8(5): e64914-e64914.
- 36. Acosta A, Ciapponi A, Aaserud M, et al. Pharmaceutical policies: effects of reference pricing, other pricing, and purchasing policies. *Cochrane Database of Systematic Reviews* 2014; (10).
- 37. Waddell K, Gauvin F, Lavis J. Evidence brief: Supporting rapid learning and improvement across Ontario's health system. Hamilton, Canada: McMaster Health Forum; 2019.





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