

















The McMaster Health Forum

For concerned citizens and influential thinkers and doers, the McMaster Health Forum strives to be a leading hub for improving health outcomes through collective problem solving. Operating at regional/provincial levels and at national levels, the Forum harnesses information, convenes stakeholders and prepares action-oriented leaders to meet pressing health issues creatively. The Forum acts as an agent of change by empowering stakeholders to set agendas, take well-considered actions, and communicate the rationale for actions effectively.

About citizen panels

A citizen panel is an innovative way to seek public input on high-priority issues. Each panel brings together 10-14 citizens from all walks of life. Panel members share their ideas and experiences on an issue, and learn from research evidence and from the views of others. The discussions of a citizen panel can 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 exploring models for pharmacist prescribing in Ontario. This brief includes information on this topic, including what is known about:

- the underlying problem;
- three possible options to address the problem; and
- potential barriers and facilitators to implement these options.

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?

Improving the health system can be challenging for many reasons, including:

- primary-care providers are delivering care for a wide range of conditions, which results in a significant burden on their shoulders and gaps in services (e.g., caring for minor ailments puts pressure on busy clinics and emergency departments, it is challenging to manage patients who take multiple prescription drugs, and it is difficult to achieve high immunization rates);
- the way in which the health system is designed may limit capacity to improve the situation (e.g., a lack of comprehensive information and communication technology infrastructure, and a lack of interprofessional collaboration); and
- some courses of action have not been fully implemented (e.g., recommendation to allow pharmacists to prescribe drugs to treat minor ailments).

What do we know about three options for addressing the problem?

We have selected three options (among many) for which we are seeking public input:

- Option 1: Setting up agreements that let your pharmacist (working alongside your family doctor) play a bigger role in supporting your use of prescription drugs
 - We found no systematic review of the literature examining formal collaborative agreements, but a few reviews examined pharmacist services delivered in primary-care clinics (with or without activities delivered collaboratively with family physicians). These reviews found several benefits for interprofessional collaboration (e.g., improved access to care, process of care, and patient outcomes in various areas of chronic disease management, and improved prescribing practices).
- Option 2: Allowing pharmacists to give you prescription drugs (without you having to see your family doctor) when you have a minor ailment
 - O There is evidence that pharmacy-based minor ailments programs are suitable alternatives to primary care consultations (e.g., high rates of resolving symptoms and lower need for reconsultation).
- Option 3: Allowing some pharmacists with special training to prescribe you a broad range of drugs (without you having to see your family doctor)
 - We found no systematic review of the literature examining this option, however, there is a growing body of studies suggesting potential benefits of giving pharmacists more authority to prescribe drugs to improve the management of chronic diseases.

What implementation considerations need to be kept in mind?

- Barriers to implementing these options might include some healthcare professionals being reluctant to take part in collaborative agreements, as well as concerns about the risk of duplication and fragmentation of care if multiple healthcare professionals are prescribing to the same patients.
- Facilitators to implementing these options might include the government of Ontario's existing efforts to encourage interprofessional care, and the intense advocacy efforts by pharmacy associations in Canada to expand the role of pharmacists.



Many provinces in Canada and many other countries have made significant changes to what pharmacists can do (i.e., their scope of practice), including allowing them to prescribe drugs for certain conditions.

The context: Why a citizen panel on pharmacist prescribing?

>> There is a need to spark a public conversation about the challenges facing our health system and what role pharmacists could play in improving access to optimal care.

The Government of Ontario has expressed its committment to transforming the health system into one that puts the needs of patients at its centre. To do this, the government's latest action plan focuses on four key goals:

- improve access providing faster access to the right care;
- **connect services** delivering better coordinated and integrated care in the community and closer to home;
- **inform people and patients** providing the education, information and transparency they need to make the right decisions about their health; and
- **protect our universal public health system** making evidence-based decisions on value and quality, to sustain the system for generations to come.(7)

Achieving these goals will be not simple. One approach could be to redefine the roles of some healthcare professionals (known as their 'scope of practice') and to develop new models of care that allow all healthcare professionals to contribute to patient care to the full extent of their training and skills.(4)

In recent years, we have seen efforts to allow pharmacists and other healthcare professionals (e.g., nurse practitioners, registered nurses, midwives, optometrists and podiatrists) to prescribe drugs. Historically, physicians, dentists and veterinarians have been the only regulated health professions with the legal authority to prescribe drugs in Canada. Now, most Canadian provinces and many other countries have adopted legislation allowing pharmacists and other healthcare professionals to prescribe drugs in a variety of situations and for many medical conditions.(8;9)

The province of Ontario took some initial steps in 2009 to expand what pharmacists can do. Bill 179 expanded the scope of practice of pharmacists and granted authority to prescribe certain drugs under specific conditions. With a recently elected majority government that has already signaled its intent to introduce nurse prescribing,(10;11) it appears timely to explore whether the implementation of a new pharmacist-prescribing model could further help the province achieve its key health-system goals.

This brief was prepared to support the discussion by a citizen panel about pharmacist prescribing in Ontario, with an emphasis on primary and community care. We will examine the potential benefits of pharmacist prescribing and what is currently being done in Ontario and elsewhere. We will then explore some of the key challenges facing our health system that may be relevant for a discussion about pharmacist prescribing. We will then examine three options (among many) to address the problem. Lastly, we will explore key implementation considerations for moving forward. The input from the citizen panel will help to guide the efforts of policymakers, managers and professional leaders who make decisions about our health system.

What are potential benefits of pharmacist prescribing?

Those who support the idea of pharmacist prescribing have identified several potential benefits. Table 1 below summarizes some of the key benefits that have been put forward, and how these align with key health-system goals in Ontario.(7)

Table 1. Potential benefits for pharmacist prescribing

Health-system goals in Ontario	Potential benefits	
Improve access	 Pharmacist prescribing could: make it easier or more convenient for patients to obtain the care that they need in a more timely manner (e.g., care for minor ailments, immunization, acting on point-of-care testing results);(2) provide an alternative to walk-in clinics and emergency room visits for patients who don't have a regular primary-care provider or who are unable to access their regular provider (e.g., out-of-hours services);(2) reduce possible interruptions in existing drug treatments;(12;13) improve the overall patient experience as they navigate the health system;(2) and reduce demands on primary-care providers (e.g., physicians and nurse practitioners) that are related to minor medical tasks (and thus ease wait times for those most in need of physician and nurse practitioner care).(14) 	
Inform patients	 Pharmacist prescribing could: increase the range of healthcare professionals from whom patients could choose to receive care, and the range of settings in which patients could choose to receive care;(2) and make better use of the full knowledge and skills of pharmacists (especially given the difficulty any one profession faces with keeping and maintaining expertise with the number, range, and complexity of prescription drugs).(2) 	
Connect services	Pharmacist prescribing could increase opportunities for interprofessional collaboration among pharmacists, physicians and other primary-care providers to improve the delivery of care.(2;12;13)	
Protect the system	Pharmacist prescribing could allow pharmacists to perform tasks safely and effectively (e.g., improve medication management, adherence and patients' outcomes),(2;12;13) and possibly at lower cost.(15;16)	

What are the different types of prescribing?

Healthcare professionals do not always have the same authority to prescribe. Table 2 below shows three levels of prescribing authority.(9)

Table 2. Three levels of prescribing authority

Levels of authority	Definition
Independent prescribing	An independent prescriber (e.g., a physician or a nurse practitioner) is the only one responsible for assessing a patient, making a diagnosis (if applicable) and making a decision about the clinical management required (e.g., renewing an existing prescription, adapting an existing prescription, and initiating a new drug treatment).
Collaborative prescribing	There is a cooperative relationship between a pharmacist, a physician, a nurse practitioner, and/or a practice group with the legal authority to prescribe drugs. A collaborative agreement is negotiated within each care setting, indicating who is responsible for patient assessment, diagnosis and clinical management, including who has authority to prescribe drugs.
Dependent prescribing	An independent prescriber delegates authority to prescribe to a pharmacist. This model incorporates restrictions on the pharmacists' prescribing activities, usually with the use of written guidelines, protocols and formularies.

What are pharmacists allowed to do in Ontario?

Under Bill 179, Ontario pharmacists can engage in the following types of independent prescribing:

- adapt a prescription (which includes the dose of the prescribed drug, the dosage form of the prescribed drug, the directions for use of the prescribed drug, or how the drug will be administered);
- renew a prescription for the purpose of continuity of care; and
- initiate prescription drug therapy for the sole purpose of smoking cessation.(17)

While these regulations provide some independent prescriptive authority to pharmacists, Bill 179 also states that pharmacists must comply with select conditions when adapting and renewing an existing prescription:

- they must notify the primary-care provider in a reasonable time after a prescription has been renewed or adapted;
- they must be in possession of the prescription to be renewed or adapted, or have access to the prescription;
- they cannot renew a prescription that exceeds the lesser of the quantity that was originally prescribed or a six-month supply;
- they must tell the patient that they can take the prescription to their pharmacy of choice;
- they must maintain appropriate records of the change and the reasons to make the change; and
- they cannot renew or adapt prescriptions for narcotics and controlled substances.(17)

There are also regulations in Ontario allowing an independent prescriber to delegate prescriptive authority to other healthcare professionals.(18) This is usually done through a medical directive (e.g., a written document from a family doctor telling another healthcare professional what to do).

Other initiatives in the province can support collaborative prescribing practices. For instance, the Federation of Health Regulatory Colleges of Ontario designed an interprofessional collaboration eTool.(19) This eTool can assist interprofessional teams (such as Family Health Teams) to coordinate care within the expanded (and sometimes overlapping) scopes of practice established under Bill 179. It was designed to assist interprofessional teams to coordinate care and to optimize roles, responsibilities and services to meet patients' needs.(19)

What are pharmacists allowed to do elsewhere?

There are a lot of differences in what pharmacists are allowed to do across Canada and abroad. Most Canadian provinces have legislation allowing pharmacists to independently prescribe drugs in a variety of situations for many medical conditions. Alberta was the first province to introduce an independent-prescribing model for pharmacists in 2007. The Alberta model is the broadest in the scope of its regulations, which allow pharmacists to apply to obtain the authority to prescribe certain drugs under certain conditions (known as 'Additional Prescribing Authorization' or APA).(20)

Glossary (1)

Access

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

Drugs

Any substance intended for use in the diagnosis, cure, mitigation, treatment or prevention of disease (also referred to as medication, medicine and pharmaceuticals).(2)

Primary and community care

A broad range of services designed to help people to live as independently as possible in the community. It involves care provided by a range of healthcare providers (e.g., family physicians, nurses, nurse practitioners, social workers, pharmacists, dietitians, public-health practitioners) and delivered in a range of settings (e.g., people's homes, Community Health Centres, Family Health Teams, Family Health Networks, Family Health Groups, Family Health Organizations, family physician offices, Nurse Practitioner-Led Clinics, nursing stations, and community pharmacies).(6)

Alberta was also the first Canadian province to adopt legislation allowing pharmacists to prescribe directly to patients who are seeking care for minor ailments. Other Canadian provinces have now implemented such a model: Saskatchewan, Manitoba, Quebec, New Brunswick, Nova Scotia, and Prince Edward Island. Legislation on this issue is pending in Newfoundland.

In the United States, several states have implemented models to support collaborative prescribing agreements. Under such collaborative agreements, qualified pharmacists can work within a defined protocol to assume responsibility for performing patient assessments, ordering laboratory tests, and selecting, initiating, monitoring and adjusting drug regimens.(21) In addition, many retail clinics in the United States have nurses taking care of patients with minor ailments.

In the United Kingdom, two key pharmacistprescribing models have been implemented: 1) a model where there is a voluntary partnership between an independent prescriber (e.g., a doctor) and a 'supplementary' prescriber (e.g., a pharmacist) to manage the care for a specific patient; and 2) a model allowing pharmacists to independently prescribe to patients seeking care for minor ailments.(9;22-25)



9.2% of Ontarians do not have access to a regular physician and 3.2% of sicker adults in the province do not have a regular physician or place to go for medical care.

The problem: Why is it challenging to meet health-system goals?

>> Meeting health-system goals is challenging because many factors affecting patients, healthcare providers and the health system must be considered.

There are several factors influencing our capacity to meet Ontario's health-system goals – to improve access to care, connect services, support people and patients, and protect our universal public-health system. Some of these factors relate to patients, others to healthcare providers, and still others to the health system more broadly. We describe some of the key challenges in the following section of the brief.

Primary-care providers are delivering care for a wide range of conditions, which results in a significant burden on their shoulders and gaps in services

The first set of challenges is that primary-care providers are delivering care for a wide range of conditions (e.g., minor ailments, chronic health conditions, and conditions that can be prevented by immunization), which results in a significant burden on their shoulders and gaps in services.

Minor ailments

Minor ailments have a significant impact on busy clinics and emergency departments. (26;27) In 2009, it was estimated that 24% of Canadians aged 15 years and older who required health services for themselves or a family member reported difficulty obtaining immediate care for a minor ailment (e.g., fever, vomiting, major headaches, sprained ankle, minor burns, cuts, skin irritation, unexplained rash, and other non-life-threatening health problems or injuries due to a minor accident). (28) In 2013, it was estimated that most patients in Ontario (nine out of 10) spent about four hours in emergency if they required care for a minor ailment. (29) Visits to emergency departments for minor ailments are not only more expensive than care provided in other settings (e.g., family physician offices, walk-in clinics), but it is also associated with higher rates of return visits in Ontario. (30)

This situation resonates with the experience in other jurisdictions where consultations for minor ailments represent a major burden on high-cost settings (e.g., primary-care clinics and emergency departments).(31) It has been estimated that consultations and treatments for minor ailments in primary-care settings represented 20% of the total workload of family physicians in the United Kingdom.(32) A study conducted in the United States estimated that 14% to 27% of all emergency department visits could have been re-directed to alternative care settings (e.g., urgent care centres or 'retail' healthcare clinics operating out of pharmacies and grocery stores).(33)

Primary-care providers, the public and patients may be frustrated by this situation, (26;34) particularly given the public's desire to access effective self-care options. (35) Indeed, minor ailments can typically be reliably self-diagnosed by patients, and some prescription drugs may be safe and effective in treating such conditions, such as antivirals (topical, oral) for cold sores; antifungals (oral) for oral thrush; antibiotics (topical) for acne and skin infections; and corticosteroids for atopic dermatitis and mild mouth ulceration. Moreover,

some of the relevant drugs to treat such minor ailments are over-the-counter drugs in other jurisdictions.

Chronic health conditions

Chronic health conditions are a significant and growing challenge in Canada. Experts concluded that "patients with multiple [chronic] conditions are the rule rather than the exception in primary care." (36) The most prevalent conditions in Ontario as of 2009 were osteoarthritis and other arthritis, hypertension, asthma, depression, diabetes and cancer. (37) These chronic conditions not only share common risk factors and conditions, but they also commonly occur together. For instance, 75% of Canadians with diabetes, heart disease, cancer or chronic obstructive pulmonary disease also have one or more other chronic condition. Furthermore, more than 50% of people with high blood pressure or arthritis have at least one additional chronic condition, and 25% of people with mood disorders have other chronic conditions. (38)

With the growing number of people with multiple chronic health conditions, the number of people who need to take four or more prescription drugs is also rising.(39) Taking multiple prescription drugs can lead to serious health problems and make it more difficult for patients to follow their treatments. The risk associated with taking multiple prescription drugs illustrates the need to support the uptake of optimal prescribing practices. Yet, caring for people with multiple chronic health conditions raises a number of challenges and uncertainties. Optimal prescribing for these patients requires special knowledge about doses and dosing regimens, and how different drugs may interact.(40)

The growing prevalence of multimorbidity and polypharmacy (taking more than one drug at a time), coupled with the fact that this prevalence grows steadily with age, indicates how important it is to design new integrated approaches to care in the province, and also suggests the need to explore how to optimize the scopes of practice of those with the knowledge, skills and abilities to maximize the effectiveness of drug treatments.

Conditions that can be prevented with immunization

Immunization is a cornerstone of public health. Yet, recent outbreaks in the province (e.g., measles, mumps) have drawn attention to gaps in immunization coverage. A recent report by the C.D. Howe Institute revealed that Ontario is failing to meet national vaccination coverage targets for most routine childhood vaccinations.(41) Immunization coverage for adults is also falling short. A 2006 Canadian Adult National Immunization Survey revealed that 49% of adult Ontarians have not received a tetanus booster in the last 10 years, and only 41% who indicated they have work-related exposure risk to hepatitis B say they have

been immunized against it.(42) If immunization coverage for children and adults continues to fall, more vulnerable populations will be put at risk of contracting infectious diseases.

The lack of accessibility to immunization services has been identified as a key issue in Canada. There are concerns about the lack of access to healthcare professionals with prescriptive authority, the lack of convenient operating hours of clinics and doctors' offices, language difficulties, and transportation costs for those in rural and remote areas.(41) These factors may explain the low immunization coverage in many regions.(41)

How the health system is designed may limit capacity to improve the situation

Improving the situation is also challenging because of how the health system is currently designed. These challenges lie in how care is delivered, how it is paid for, and how it is regulated.

Challenges related to how care is delivered

In terms of how care is delivered now, we can identify three key challenges:

- A lack of access to primary-care providers: It is estimated that 9.2% of Ontarians do not have access to a regular physician (43) and 3.2% of sicker adults in the province do not have a regular physician or place to go for medical care.(44) Among those sicker adults who do have a place to go for care, only half of them could see a doctor or nurse on the same or next day the last time they were sick.(44)
- A lack of interprofessional collaboration which limits the health system's capacity to deliver better coordinated and integrated care: Interprofessional collaboration has been argued to be key to delivering better coordinated and integrated care, and may improve patients' outcomes.(45-49) However, such collaboration occurs relatively infrequently in primary and community care settings.(50)
- A lack of comprehensive information and communication technology infrastructure which limits the health system's capacity to deliver better coordinated and integrated care: There is currently a lack of comprehensive, reliable and secure information and communication technology infrastructure, such as electronic health records (i.e., a system enabling prescribers and other healthcare professionals to access health information about individual patients) and drug-information system (i.e., a system enabling prescribers and other healthcare professionals to access, manage, share and safeguard patients' medication histories). The lack of such technology infrastructure

may exacerbate the fragmentation of care, limit capacity to monitor patients along the continuum of care, and increase the risk of adverse drug events. The latter is particularly important if prescriptive authority is extended to several healthcare professionals and these professionals are unable to communicate changes in a patient's medication in an effective and timely manner.(2;12;13;40)

Challenges related to how care is paid for

Improving the situation can also be challenging because of how care is paid for. Ontario's publicly funded health system is distinguished by a long-standing private delivery/public payment agreement between the government on the one hand, and physicians on the other, and the private practice element of the agreement has typically meant that physicians have been wary of potential infringements on their professional and commercial autonomy (e.g., directives about the nature of the care they deliver or the way in which they organize and deliver that care). Other primary-care providers such as nurses, physiotherapists, dietitians and pharmacists, as well as teams led by these providers, are typically not eligible for public fee-for-service payment (or at least not on terms that make independent healthcare practices viable on a large scale). The Health Professions Regulatory Advisory Council observed in 2008 that "different remuneration methods and incentives lead to turf protection and power imbalances at the clinical level." (51) Remuneration systems currently in place are a potential barrier to the optimization of scopes of practice and may limit the provision of clinical-care services by alternative primary-care providers. (4)

Challenges related to how care is regulated

We can identify at least three key challenges related to how care is regulated:

- A complex regulatory framework which limits the health system's capacity to deliver better coordinated and integrated care: Current governance arrangements related to the regulation of scopes of practice may impede innovation and reinforce silos.(4) For instance, overlapping scopes of practice can create barriers to collaboration (e.g., different interpretations of the same or similar controlled acts, and different standards and guidelines adopted by professions that perform them).(2)
- A lack of interprofessional collaboration at the regulatory level which limits the health system's capacity to deliver better coordinated and integrated care: In 2009, the Health Professions Regulatory Advisory Council (HPRAC) observed a lack of collaboration among health colleges, which impeded capacity to respond to change and meet key health-system goals. Therefore, HPRAC called for a more collaborative approach to self-regulation by health colleges.(2) HPRAC's observation was made in light of recent changes to the Regulated Health Professions Act's Procedural Code. The

legislative framework now requires each health regulatory college to support interprofessional collaboration by: 1) promoting and enhancing relations between the colleges and their members, other health profession colleges, key stakeholders, and the public; 2) promoting interprofessional collaboration with other health profession colleges; and 3) developing, establishing and maintaining standards and programs to promote the ability of members to respond to changes in practice environments, advances in technology and other emerging issues.(52) Regulatory colleges have indicated their desire to fulfil these new objectives, and recent initiatives illustrate such efforts (e.g., the development and promotion of the interprofessional collaboration eTool).(19)

Some courses of action have not yet been fully implemented

The province of Ontario took some initial steps in supporting greater interprofessional collaboration and expanding the scope of practice of some healthcare professionals (including granting prescriptive authority to pharmacists for certain drugs and select conditions) with the adoption of Bill 179 in 2009. However, there were significant delays in the implementation of the reform (e.g., the regulations under Bill 179 were only passed in October 2012) and in the promotion of the new and expanded roles for these healthcare professionals (e.g., the Ontario Pharmacists Association only launched a public awareness campaign about the new services provided by pharmacists two years later, in March 2014). Thus, it may still be too early to determine the overall impact of Bill 179 in meeting health-system goals.(14)

A number of examples suggest that health-system stakeholders in Ontario (and across Canada) are also not moving on an agreed course of action. For instance, the implementation of a minor ailments program has been recommended by both the Health Professions Regulatory Advisory Council (2) and the Commission on the Reform of Ontario's Public Services,(15) but no actions have been taken by the provincial government in this direction. Nevertheless, various efforts are in place or are in development to prepare pharmacists with the supports associated with minor ailment assessments and prescribing. The University of Toronto recently launched its new Minor Ailments program at the Leslie Dan Faculty of Pharmacy to equip pharmacists with "the skills, confidence, and tools needed to successfully advance the treatment of minor ailments in their practice." (53)



We have selected three options (among many) for which we are seeking public input.

Options: How can we address the problem?

>> To promote discussion about the pros and cons of potential solutions, we have selected three options for pharmacist prescribing in Ontario

Many options could be selected as a starting point for discussion. We have selected three options (among many) for which we are seeking public input:

- 1. setting up agreements that let your pharmacist (working alongside your family doctor) play a bigger role in supporting your use of prescription drugs;
- 2. allowing pharmacists to give you prescription drugs (without you having to see your family doctor) when you have a minor ailment; and
- **3.** allowing some pharmacists with special training to give you a broad range of prescription drugs (without you having to see your family doctor).

The three options do not have to be considered separately. They could be pursued together or in sequence. New options could also emerge during the discussions.

Option 1 — Setting up agreements that let your pharmacist (working alongside your family doctor) play a bigger role in supporting your use of prescription drugs

The first option aims to facilitate the adoption of collaborative practice agreements that let your pharmacist (working alongside your family doctor) play a bigger role in supporting your use of prescription drugs. Under such agreements, your family doctor could diagnose and make initial treatment decisions with you, but delegate the authority to prescribe drugs to your pharmacist, who would then have the flexibility to select, initiate, monitor, adapt and decide whether to continue or stop a prescription drug (as appropriate). All primary-care providers taking part in collaborative practice agreements would share the risk and responsibility for the patient outcomes.(9;54)

This option could build on some initiatives currently in place in Ontario that support interprofessional collaboration. For example, the Federation of Health Regulatory Colleges of Ontario developed an interprofessional collaboration eTool.(19) This eTool can assist interprofessional teams (such as Family Health Teams) to coordinate care, especially in a context of healthcare professionals who may have overlapping scopes of practice. This eTool was designed to health teams to coordinate care and to optimize roles, responsibilities and services to meet patients' needs.(19) Medical directives could also be used to formalize such collaborative agreements in order to delegate prescribing authority to pharmacists.(55)

We found no systematic review examining formal agreements like the ones discussed here. However, we found several systematic reviews examining pharmacist services delivered in primary-care clinics, with or without activities delivered collaboratively with family doctors.(39;45-49;56) These reviews identified potential benefits for interprofessional collaboration between pharmacists and other primary-care providers, including improved access to care, process of care, patient outcomes in various areas of chronic disease management (e.g., medication adherence, patient knowledge and quality of life), capacity to detect underlying diseases, and prescribing practices.

Option 2 — Allowing pharmacists to give you prescription drugs (without you having to see your family doctor) when you have a minor ailment

The second option aims to allow pharmacists to become a first point of contact for patients requesting advice about treating minor, selflimiting, and self-diagnosed conditions. The pharmacists could also prescribe drugs in situations where no diagnosis is required (e.g., a vaccine, oral contraceptives, and preventive therapy for travel such as an anti-malarial for prophylaxis or an antibiotic for traveller's diarrhea). If the selfdiagnosis is reasonable based on clinical guidelines, the pharmacist would have the authorization to prescribe. If the pharmacist is unable to confirm the patient's self-diagnosis and/or the patient's symptoms are severe, the pharmacist would refer the patient to a physician or another appropriate primary-care provider.

This option aligns with minor ailments programs launched in many Canadian provinces: Alberta, Saskatchewan, Manitoba, Quebec, New Brunswick, Nova Scotia, and Prince Edward Island. Legislation on this issue is pending in Newfoundland. Similar pharmacy-based minor ailments programs have been implemented in the United Kingdom for more than a decade.(57)

We found evidence suggesting that pharmacybased minor ailments programs are suitable

Glossary (2)

Chronic health condition

A health problem requiring ongoing management over a period of years or decades (e.g., asthma, cancer, depression, diabetes and heart disease).

Minor ailment

An illness or symptom that is self-limiting, where the patient can reasonably self-medicate for, and can reasonably be expected to self-diagnose.(1) Minor ailments may include: acne (mild or minor), insect bites, cold sores, allergic rhinitis, oral thrush, diaper rash, canker sores, headaches and migraine, atopic dermatitis, bacterial skin infections, tinea infections, dyspepsia or gastroesophageal reflux disease, hemorrhoids, dysmenorrhea, and muscular skeletal pain, stiffness and spasm.(5)

Scope of practice

How regulated health professionals are defined (e.g., who can call themselves a pharmacist); what they are trained to do; what they are authorized to do by legislation; what they actually do and how they do it; and what others expect a professional can do.(3;4)

alternatives to family-physician consultations. These benefits include high rates of resolving symptoms, low re-consultation rates, and a decline in the total number of consultations and prescribing for minor ailments in primary-care clinics, after the introduction of the pharmacy-based minor ailments programs.(24;56) In addition, we found evidence suggesting that the costs of consulting a pharmacy-based minor ailments program were markedly lower than the costs of primary-care and emergency-department consultations.(24)

Option 3 — Allowing some pharmacists with special training to give you a broad range of prescription drugs (without you having to see your family doctor)

The third option aims to allow individual pharmacists to apply to obtain additional prescribing authorization. Under such a model, the Ontario College of Pharmacists would issue licenses to individual pharmacists meeting specific requirements to get additional prescribing authorization (APA). A pharmacist with an APA licence would have the authority to independently prescribe certain drugs and vaccines.

This option is aligned with the model established in Alberta in 2007,(20) a model which is also generating interest in British Columbia.(58) Pharmacists in Alberta can apply to the Alberta College of Pharmacists to obtain an APA licence.(20) All licensed pharmacists can conduct assessments (for which they are paid \$20 per assessment by the provincial government) that may lead to adapting, extending or refusing to fill prescriptions. Further, pharmacists with an APA licence can initiate or manage a drug therapy through an assessment (for which they receive \$25).

To apply for an APA licence in Alberta, a pharmacist must:

- be in good standing with the Alberta College of Pharmacists;
- have at least one year of full-time experience in direct patient care;
- have strong collaborative relationships with other regulated healthcare professionals;
- have and maintain the necessary knowledge, skills and attitudes and clinical judgment to enhance patient care; and
- have the required supports in his/her practice (e.g., access to information, communication, documentation processes) to enable safe and effective management of drug treatments.(59)

If a pharmacist meets these criteria, he/she can submit an application, which will include three patient cases showing that they are prepared for additional prescribing authorization. Two members of the Alberta College of Pharmacists will then evaluate the application. No additional course or diploma is required.

We found a recent and low-quality review revealing a growing body of studies examining the experience in Alberta. (56) These studies examined whether pharmacists with prescribing authority could improve the management of chronic health conditions. Overall, patients who received care from a pharmacist with prescribing authority saw improvements in:

- hypertension management (i.e., statistically significant reduction in blood pressure);
- blood pressure and lipid level control in patients who suffered a minor stroke;
- dyslipidemia control (i.e., control of bad cholesterol); and
- glycemic control for diabetes patients.

Option 1 — Setting up agreements that let your pharmacist (working alongside your family doctor) play a bigger role in supporting your use of prescription drugs

What is known about option 1

- A recent and medium-quality review revealed that interprofessional collaboration in Family Health Teams in Ontario has generated improvements in healthcare access and outcomes.(49)
- A recent and medium-quality review examining the effectiveness of clinical pharmacist services delivered in primary-care clinics (with or without activities delivered collaboratively with family physicians) found benefits for interventions delivered by pharmacists, which include:
 - o assessment, health and lifestyle advice;
 - o medication initiation or adjustment; and
 - o monitoring in conjunction with verbal communication (i.e. telephone or face-to-face).(45)
- The same review revealed that pharmacist interventions improved prescribing practices and various areas of chronic disease management, such as:
 - o improving blood pressure;
 - o improving diabetes control;
 - o improving cholesterol control; and
 - o reducing the risk of heart attack.(45)
- A recent and low-quality review exploring pharmacist-prescribing practices in Canada suggests that pharmacist prescribing in collaboration with other healthcare professionals can facilitate the detection of underlying diseases.(56)
- An old and medium-quality review examining the effectiveness of U.S. pharmacists as team members providing
 direct patient care (e.g., making or recommending medication adjustments via education to understand
 medication, education to understand disease, medication or intervention adherence education, prospective or
 retrospective drug utilization review, and chronic disease management) found benefits across various patient
 outcomes, healthcare settings, and disease states (e.g., medication adherence, patient knowledge, and quality
 of life/general health).(47)
- An old and low-quality review examining the effectiveness of task substitution between family physicians and pharmacists (as well as between family physicians and nurses) reported improved process of care and patient outcomes, such as improved disease control, among older adults with chronic disease. Identified pharmacist interventions that led to positive outcomes included:
 - o medication review; and
 - o patient management (e.g., change of medication or dose adjustment, risk factor screening, counselling).(46)
- A recent and medium-quality review examining interprofessional collaboration in Family Health Teams in Ontario identified important determinants for collaborative team practice in a Family Health Team setting:
 - o clear vision;
 - o flattened hierarchy/structures;
 - o physician leadership and administrative leadership;
 - o effective communication and electronic medical record integration;
 - shared time and shared space among provider groups;
 - o education/training to prepare providers and education to prepare patients;
 - o clearly defined and understood roles and scopes of practice for each professional;
 - o group culture/roles based on provider strengths;
 - o establishment of a system/process to ensure patients see the right professional;
 - o patient-centred care focus;

- o external partnership/partners; and
- o adequate funding, human resources and remuneration.(49)
- A recent and medium-quality review identified some key elements contributing to collaboration between family
 physicians and pharmacists during medication review (but further research is required to determine which
 elements are most important):
 - o pharmacists with clinical experience;
 - o patient's regular pharmacist is involved (i.e., a pharmacist who has an existing therapeutic relationship with his or her patient);
 - sharing of medical records;
 - o patient interview by pharmacist;
 - o case conference between family physicians and pharmacists;
 - o action plan; and
 - o follow-up.(48)

Option 2 — Allowing pharmacists to give you prescription drugs (without you having to see your family doctor) when you have a minor ailment

What is known about option 2

- A recent and low-quality review exploring pharmacist-prescribing practices in Canada showed that 81% of patients who received services from a pharmacy-based minor ailments program in Saskatchewan experienced significant improvement in their symptoms.(56)
- A recent and medium-quality review found the following benefits for pharmacy-based minor ailments programs in the United Kingdom:
 - high symptom-resolution rates (proportion of patients reporting complete resolution of symptoms ranged from 68% to 94%);
 - o low re-consultation rates in primary-care clinics (ranged from 2% to 23%); and
 - o decline in the total number of consultations and prescribing for minor ailments in primary-care clinics following the introduction of pharmacy-based minor ailments services.(24)
- That same review found that the consultation costs for users of pharmacy-based minor ailments programs in the United Kingdom were markedly lower than the cost of primary-care and emergency-department consultations, but no study included a full economic evaluation.(24)
- That same review found limited evidence about the extent to which these programs shift demand for management of minor ailments away from high-cost settings (e.g., impact of these programs on overall family physicians' workload).(24)
- That same review found:
 - general satisfaction among users (90% or more responders were willing to re-use the programs and expressed general satisfaction with their consultations, pharmacy staff attitude, and expertise of pharmacy staff in minor ailments management and advice provision), which appears comparable with non-users' satisfaction with primary-care consultations;
 - o positive attitudes of family physicians towards greater pharmacist participation in the management of minor ailments and the extension of minor ailments covered by the programs, but doubts over whether there was a decline in their overall workload; and
 - o positive attitudes from community pharmacists towards the minor ailments programs and the extension of their professional role, and their new workload being accommodated within their routine work, but concerns about patients' misuse of the programs which could become a barrier to efficient service provision.(24)

Option 3 — Allowing some pharmacists with special training to give you a broad range of prescription drugs (without you having to see your family doctor)

What is known about option 3

- A recent and low-quality review exploring pharmacist-prescribing practices in Canada revealed potential benefits of a model allowing pharmacists to obtain additional prescribing authorization:(56)
 - o improved hypertension management with statistically significant reduction in blood pressure (reduction in systolic blood pressure of 18 mmHg compared with 11 mmHg in the control group);
 - o improved blood pressure and lipid level control in patients who suffered a minor stroke (in comparison to nurse-led case management);
 - o improved dyslipidemia control (pharmacist prescribing and follow-up resulted in more than a two-fold reduction in bad cholesterol); and
 - o improved glycemic control for diabetes patients (similar to physician-led studies).

Implementation considerations

It is important to consider what barriers we may face in implementing potential solutions. The three options presented above will now be considered in the context of barriers. These barriers may affect different groups (e.g., patients and healthcare providers), different healthcare organizations or the health system. While some barriers could be overcome relatively easily, others could be so substantial that they force us to re-evaluate whether we should pursue that option.

Various factors could also facilitate the implementation of each of the three options. A facilitator could be a recent event that was highly publicized in the media, a crisis, a change in public opinion, or an upcoming election.

A list of potential barriers and facilitators for implementing the three options is provided below. This table is provided to spur reflection about some of the considerations that may influence choices about an optimal way forward. We have identified the barriers and facilitators from a range of sources (not just the research literature) and we have not ranked them in any way.

Option 1 – Setting up agreements that let your pharmacist (working alongside your family doctor)
play a bigger role in supporting your use of prescription drugs

Facilitators Barriers • Some healthcare professionals may be reluctant to take • This option is aligned with Ontario's existing efforts to part in collaborative agreements relying on medical support interprofessional care (e.g., its commitment to directives (e.g., medical directives can be cumbersome transforming the delivery of local healthcare and to and maintain a hierarchical approach to interprofessional encourage collaboration among existing local healthcare interactions). professions to better coordinate care).(7) Some physicians may be reluctant to participate in such a • This option is aligned with the work of the Federation of model (e.g., they may express concerns about liability Health Regulatory Colleges of Ontario (FHRCO), which led issues, loss of income). initiatives to increase interprofessional collaboration at Health-system leaders have expressed divergent views the delivery level (e.g., FHRCO Guide to Medical Directives regarding the potential impact of pharmacist prescribing and Delegation, or FHRCO Interprofessional Collaboration on patient safety and access to primary care, which may eTool).(19;55) be exacerbated by the lack of evidence about the overall impact of pharmacist-prescribing models on clinical practice and patient outcomes.

Option 2 — Allowing pharmacists to give you prescription drugs (without you having to see your family doctor) when you have a minor ailment

Barriers Facilitators

- The public may get confused by what is or isn't a 'minor ailment,' and which drugs can be prescribed by pharmacists to treat these ailments.
- Some members of the public may be reluctant to seek care from a pharmacist if it required out-ofpocket expenses.(60)
- Some pharmacists may have difficulty integrating their new roles into daily work flow (e.g., dispensing drugs and offering a service to treat minor ailments at the same time, the lengthy assessment process, and the documentation) and some may lack confidence in adopting these new roles.(61)
- Some physicians may be reluctant to have their patients use such a service (e.g., physicians in Ontario are paid based on a fee-for-service model and this new service could be seen as a loss of revenue).(61)
- Some health-system leaders may be concerned about the risk of duplication and an increased fragmentation of care if multiple healthcare professionals are doing similar tasks and are not linked back to primary-care providers.
- Health-system leaders have expressed divergent views regarding the potential impact of pharmacist prescribing on patient safety and access to primary care, which may be exacerbated by the lack of evidence about the overall impact of pharmacistprescribing models on clinical practice and patient outcomes.
- Some health-system stakeholders may be concerned that there is a potential conflict of interest if pharmacists are both prescribing and dispensing drugs.
- Some health-system stakeholders may argue that it could be more efficient to de-regulate some drugs to over-the-counter (OTC) status instead of allowing pharmacists to prescribe for minor ailments.

- This option is aligned with recommendations made by the Health Professions Regulatory Advisory Council of Ontario (2) and the Commission on the Reform of Ontario's Public Services (15) in support of allowing pharmacists to prescribe for minor ailments.
- A minor ailments program has been the subject of intense advocacy efforts by pharmacy associations in Canada.
- Continuing professional development programs for pharmacists offered by the University of Toronto and the Ontario Pharmacists Association specifically focus on minor ailments.(53)

Option 3 – Allowing some pharmacists with special training to give you a broad range of

prescription drugs (without you having to see your family doctor)				
Barriers	Facilitators			
 The public may get confused by the different categories of pharmacists and what they can or can't do (e.g., pharmacists with an APA licence vs. other pharmacists). Some pharmacists may perceive this option as being elitist (i.e., some pharmacists being perceived as 'better' than others).(62) Some pharmacists may face various hurdles while completing the application process, including personal hurdles (e.g., lack of time to apply), procedural hurdles (e.g., uncertainty regarding expectations for the application), and professional hurdles (e.g., scepticism and obstruction from other pharmacists).(56;63) Health-system leaders have expressed divergent views regarding the potential impact of pharmacist prescribing on patient safety and access to primary care which may be exacerbated by the lack of evidence about the overall impact of pharmacist-prescribing models on clinical practice and patient outcomes. Some health-system stakeholders may be concerned that the introduction of a separate licence could lead to a two-tiered system and be divisive. Some health-system stakeholders may be concerned that there is a potential conflict of interest if pharmacists are both prescribing and dispensing 	 Some pharmacists may be motivated to apply to obtain additional prescribing authorization (e.g., being at the leading edge of pharmacy practice, improving collaborative practice, validating some of the responsibilities they are already undertaking).(63) Many health colleges and regulatory bodies across Canada and abroad are involved in discussion about 'advance practice' roles.(58) Other healthcare providers (e.g., physicians) may be favourable to this option, since individual pharmacists would have to demonstrate that they are competent to prescribe.(14) 			

drugs.

Questions for the citizen panel

>> We want to hear your views about the problem, three options for addressing it, and how we can move forward.

This brief was prepared to stimulate the discussion during the citizen panel. The views, experiences and knowledge of citizens can make a great contribution.

More specifically, the panel will provide an opportunity to explore the questions outlined in Box 1. Although we will be looking for common ground during these discussions, the goal of the panel is not to reach consensus, but to gather a range of perspectives on this topic.

Box 1 >> Questions for the citizen panels

What are the biggest challenges faced by those who:

- >> Are unable to arrange an appointment with a physician or other health professional who could prescribe prescription drugs?
- >> Are receiving support from a pharmacist for things like immunization, advice about an over-the-counter drug, or smoking cessation?

What are your views about the three proposed options?

- >> **Option 1:** Setting up agreements that let your pharmacist (working alongside your family doctor) play a bigger role in supporting your use of prescription drugs
- >> **Option 2:** Allowing pharmacists to give you prescription drugs (without you having to see your family doctor) when you have a minor ailment
- >> **Option 3:** Allowing some pharmacists with special training to give you a broad range of prescription drugs (without you having to see your family doctor)

What are potential barriers and facilitators for implementing these options?



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Authors

François-Pierre Gauvin, PhD, Lead, Evidence Synthesis and Francophone Outreach, McMaster Health Forum John N. Lavis, MD PhD, Director, McMaster Health Forum, and Professor, McMaster University Lisa McCarthy, PharmD M.Sc., Pharmacy Scientist, Women's College Research Institute at Women's College Hospital, and Assistant Professor (status), Leslie Dan Faculty of Pharmacy, University of Toronto

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Conflict of interest

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Merit review

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>> Contact us

McMaster Health Forum 1280 Main St. West, MML-417 Hamilton, ON Canada L8S 4L6 Tel: +1.905.525.9140 x 22121 Email: mhf@mcmaster.ca

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