McMaster University

McMaster HEALTH FORUM

CITIZEN BRIEF

IMPROVING CARE AND SUPPORT FOR PEOPLE WITH MULTIPLE CHRONIC HEALTH CONDITIONS IN ONTARIO

1 FEBRUARY 2014

EVIDENCE >> INSIGHT >> ACTION

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 the regional/provincial level and at national levels, the Forum harnesses information, convenes stakeholders and prepares action-oriented leaders to meet a challenge 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 the available research evidence and 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 how to improve care and support for people with multiple chronic health conditions 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 implementing 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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People who have multiple chronic health conditions have complex needs, but they often receive care that is fragmented and ineffective.

The context:

Why is improving care and support for people with multiple chronic health conditions a high priority?

>> A growing number of Ontarians must manage multiple chronic health conditions, which puts a significant burden on their lives and the health system.

Scenario 1

John D. is a 73-year-old retiree with mild Alzheimer's dementia. He lives with his wife and daughter. He has Type 2 diabetes and has had some trouble with depression. In recent months he had issues with stability and frequently fell. He refuses to go to an assisted-living

facility due to a poor outcome experienced by another family member. He increasingly needs assistance with daily living activities and in adhering to his complex drug regimen.

Scenario 2
Mary G. is a 54-year-old divorced woman with a history of arthritis and congestive heart failure. She is currently undergoing chemotherapy for stage three colorectal cancer. She has been out of the workforce for the past three years due to poor health, and is receiving income support. She lives in a remote area.

Scenario 3
Steven W. is a 29-year-old student. He is overweight with a history of asthma and hypertension. Two years ago he survived a terrible car crash in which a long-time friend was killed. Since then, he has been suffering from recurring flashbacks and nightmares (also known as post-traumatic stress disorder). He lives alone on a small, fixed income.

These scenarios illustrate examples of people living with multiple chronic health conditions. Chronic health conditions are those requiring ongoing management over a period of years or decades.(2) These may include:

- cancer;
- diabetes;
- heart diseases (e.g., high blood pressure and stroke);
- kidney diseases;
- mood disorders (e.g., depression);
- musculoskeletal diseases (e.g., arthritis and osteoporosis);
- neurological diseases (also known as diseases of the nervous system); and
- respiratory diseases (e.g., asthma, emphysema, chronic obstructive pulmonary disease, sleep apnea).

Improving care and support for people with multiple chronic health conditions has attracted a lot of attention in Ontario, in part because:

- managing multiple chronic health conditions is part of the daily life of a growing number of Ontarians;
- having multiple chronic health conditions significantly affects people's quality of life, their ability to work, and their risk of dying prematurely;(6)

Glossary

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).(2)

Integrated management

The provision of patient-centred care in which all healthcare providers work together with patients. Integrated management ensures coordination, consistency and continuity of care over time and through the different stages of patients' chronic health conditions.

Medical guideline

A document guiding healthcare providers and patients to make informed decisions regarding diagnosis, management and treatment of a defined health condition under certain circumstances. A guideline will provide recommendations that are informed by the best available research evidence.

Primary care

The first level of contact with the health system provided primarily by family doctors (e.g., office visits and house calls).

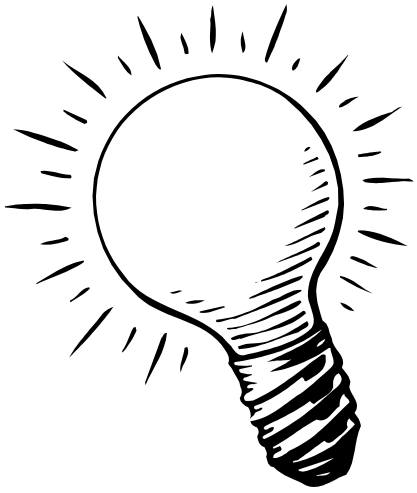
Self-management

"An individual's ability to manage the symptoms, treatment, physical, psychosocial, and lifestyle changes inherent in living with a chronic condition."(3) It empowers patients and prepares them to manage their health and healthcare.(4;5)

- people who have multiple chronic health conditions have complex needs, but they often receive care that is fragmented (e.g., patients will seek care from several providers, each focusing on a single condition) and care that is ineffective (e.g., treating one condition may worsen another condition);(6) and
- two out of every three dollars spent on healthcare goes to those living with multiple chronic health conditions.(7)

There have been growing calls in recent years to find more effective ways to address the needs of those with multiple chronic health conditions.(8;9)

This brief was prepared to support the discussion by a citizen panel about improving care and support for people with multiple chronic health conditions in Ontario. 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.



>> Health system in Ontario

- 14 geographically defined Local Health Integration Networks (LHINs) have responsibility for the planning and funding of healthcare in their respective regions, and for attempting to ensure that the different parts of the health system in their region work together.

- 14 Community Care Access Centres (CCACs) – one for each LHIN – have responsibility for connecting people with the care they need at home and in their community.

- 26 Health Links (of an anticipated total of 77) mobilize the delivery of integrated care for those with complex needs.

43% of Ontarians over the age of 65 are living with two or more chronic health conditions, and the risks grow steadily with age.

The problem:

Why is improving care and support for people with multiple chronic health conditions challenging?

>> Improving care and support for people with multiple chronic health conditions is challenging because it deals with many issues at the levels of patients, caregivers, healthcare providers and the health system more broadly.

In this section, we highlight some factors that contribute to the problem and that require careful consideration.

The problem affects many groups

Chronic health conditions are a significant and growing challenge in Canada. Experts recently concluded that "patients with multiple conditions are the rule rather than the exception in primary care."(10) This observation is consistent with an analysis conducted by the Health Council of Canada, which found that 29% of Canadians had one chronic health condition, 15% had two chronic health conditions, and 11% had three or more. Amongst those who are considered to be the sickest Canadians, 70% have two or more chronic health conditions.(11)

>> Canadians with chronic health conditions

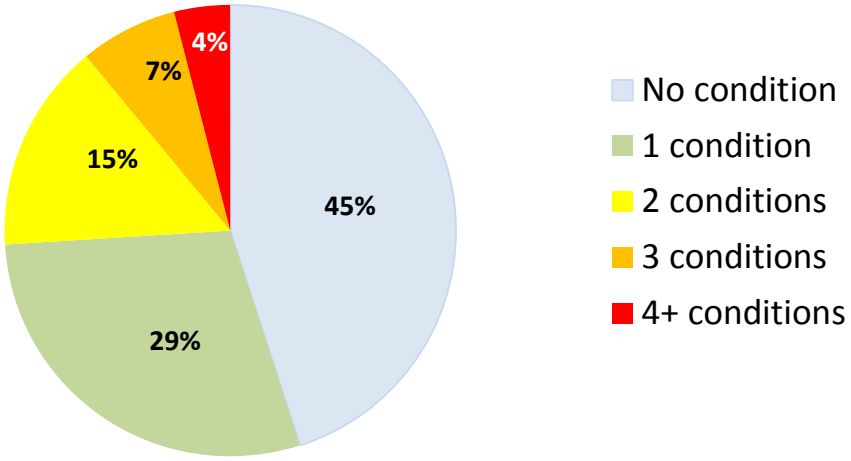


Figure 1 – Health Council of Canada (11)

The problem seems to affect many groups.

- **Older adults:** 43% of Ontarians over the age of 65 are living with two or more chronic health conditions, and the risks grow steadily with age.(12;13)
- **Younger adults:** 12% of younger adults in Canada have three or more chronic health conditions.(14;15)
- **Women:** 14% of Canadian women have two or more chronic health conditions as compared to 11% of men (across all age groups).(13)

- **Vulnerable groups:** 40% of low-income Canadians have one or more chronic health conditions, compared to 27% of high-income Canadians.(13)

These statistics show that the problem is more concentrated in older adults and women, but large numbers of younger adults and men are also dealing with multiple chronic health conditions. The problem is also affecting the most vulnerable in our society (e.g., people with limited education, low incomes and/or living in rural communities).(11;16;17) The poorest Canadians are almost three times as likely as the highest-income Canadians to have multiple chronic health conditions.(18)

Caring for people with multiple chronic health conditions is especially challenging

Caring for people with multiple chronic health conditions is particularly challenging because there are several potentially competing health outcomes.(19) For example, healthcare providers and patients must find a balance between improving nutrition, living situation, function, symptom burden, survival, active life expectancy of a patient and other health outcomes. The challenge associated with balancing these health outcomes highlights the need to engage patients and their caregivers in prioritizing these outcomes based on their values, needs and preferences.

Caring for people with multiple chronic health conditions is also challenging because there are several potentially competing treatments. All these treatments may overlap and interact, which creates uncertainties about the benefits and harms of simultaneous treatments. There is also the potential risk of worsening one condition by treating another one.(6)

In addition, healthcare providers and patients are often using medical guidelines (also known as 'clinical practice guidelines') to help them make decisions about appropriate care for specific health conditions. However, the majority of guidelines focus on single conditions and rarely address how to optimally integrate care for people with multiple chronic health conditions (e.g., a guideline to treat asthma, a guideline to treat diabetes, a guideline to treat depression).(20-23) This lack of availability of appropriate guidelines means that healthcare providers and patients often have to turn to several guidelines focused on single conditions, which can be burdensome for everyone involved.(8;24)

The health system is not currently designed to provide integrated care for people with multiple chronic health conditions

Improving care and support for people with multiple chronic health conditions is also challenging because of how the health system is currently designed. These challenges lie in how care is delivered and paid for.

In terms of how care is delivered now, we can identify three key challenges. First, people with multiple chronic health conditions often receive care that is fragmented.(6) For instance, a patient with diabetes, multiple sclerosis and emphysema may need to seek care from a different doctor for each condition. These various healthcare providers may be in different settings and may not effectively communicate with each other,(8;24) which increases the risks of medical errors and poor care coordination.(25)

A second challenge is that when you see your doctor, you often only have 15 minutes. A 15-minute appointment is problematic when a patient is seeking care for multiple chronic health conditions. It limits the provision of optimal care and supports for self-management. It also limits efforts to meaningfully engage patients in collaborative decision-making about their care.(26)

A third challenge is associated with the heavy burden faced by patients and caregivers. Patients with multiple chronic health conditions have greater self-care needs. Older adults, who often have multiple chronic conditions, are also more likely to rely on informal and family caregivers to support them.(6) The burden for patients and caregivers may take various forms, such as assisting patients with daily living activities, managing multiple appointments with multiple healthcare professionals in multiple settings, or helping patients follow multiple and complex drug regimens. This heavy burden may generate great stress for these caregivers.(26)

We can identify at least five key challenges related to how care is paid for. A first challenge is that patients and their families often have to pay for many health services out-of-pocket. For example, they often have to pay for additional home care and community supports that are needed, like additional rehabilitation therapy, nursing care, other types of home care, and transportation to and from medical appointments. In addition, the coverage of these

services can vary across Local Health Integration Networks (LHINs) depending on how each LHIN has invested its funds. As a result, it is difficult for providers and organizations (e.g., Community Care Access Centres) to develop comprehensive and customized packages of care and services for people with multiple chronic health conditions, based on their specific needs and their ability to pay.

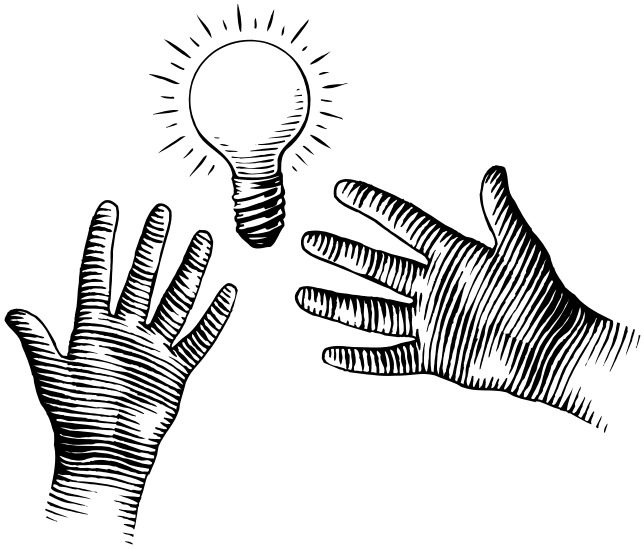
A second challenge is that informal and family caregivers are losing out on earning income and saving for retirement. It is estimated that there are more than two million unpaid caregivers in Canada (27;28) and the estimated economic value of these contributions is in the range of $25 billion.(29) In addition, those identified as either intensive caregivers and/or primary caregivers (as opposed to caregivers in general) are significantly less likely to be in the labour force as compared to non-caregivers.(30) Financial support for informal and family caregivers remains limited.

A third financial challenge is that most doctors are paid for each service provided separately. This is also known as a 'fee-for-service' remuneration model. This remuneration model is not conducive to supporting integrated care for patients with multiple chronic health conditions, and may exacerbate fragmentation in the system.(8)

A fourth financial challenge is that doctors may receive financial rewards for following condition-specific guidelines. The purpose of these financial incentives is to make sure that doctors adhere to the guidelines. However, such incentives may contribute to the treatment burden faced by patients and their caregivers.(20;31)

A fifth financial challenge is that multiple chronic health conditions are very expensive for taxpayers. A recent analysis about high-needs users of the health system in Ontario (which means those with the highest healthcare spending but not necessarily with multiple chronic health conditions) indicates that 1% of the population accounts for 33% of healthcare costs, and 5% accounts for 66% of healthcare costs.(7) In addition, the estimated burden of chronic health conditions in Ontario amounts to just over 55% of total direct and indirect healthcare costs, and this is expected to rise.(32) Therefore, it is increasingly important to find more efficient ways to provide the care needed for these patients who have complex needs.

Bringing about change takes time, resources and commitment from many players



There have been some promising steps taken by governments at all levels, as well as by Local Health Integration Networks, hospitals and others, to provide better care and support for people with multiple chronic health conditions. However, efforts of this kind take time, resources and commitment from many players to bring about change. Box 3 provides a list of a few recent initiatives.

>> A few recent initiatives

- 26 Health Links (of an anticipated total of 77 Health Links) were launched in December 2012 to mobilize the delivery of integrated care for those with complex needs.(1) Health Links are also designed to support local patient-care networks that are led by a coordinating partner, and to coordinate and optimize access to needed services.
- A variety of pilot programs are currently underway in Local Health Integration Networks (LHINs) that aim to improve the integration of care teams and education for providers, and provide more seamless transitions of care.
- The Ontario Ministry of Health and Long-Term Care funded a dialogue hosted by the McMaster Health Forum, bringing together health system policymakers, managers, providers and researchers to discuss strategies for how to design integrated approaches to support people with multiple chronic health conditions.
- An active research community (see crmcspl-blog.recherche.usherbrooke.ca) is dedicated to developing innovative models of care, developing medical guidelines appropriate for patients with multiple chronic health conditions, better understanding the root causes of the problem and exploring the experiences of people affected by multiple chronic health conditions.

Box 3

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 improving care and support for people with multiple chronic health conditions in Ontario.

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

1. changing the way care is organized and delivered to patients;
2. supporting patients to engage in conversations with their healthcare providers to prioritize amongst multiple and complex care needs; and
3. supporting patients to manage their own care.

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.

In the following sections, we examine what is known about the pros and cons for each option, by summarizing the findings of systematic reviews of the research literature. A systematic review is a summary of all the studies addressing a clearly formulated question. The authors use systematic and explicit methods to identify, select and evaluate the quality of the studies, and to summarize the findings from the included studies.

Not all systematic reviews are of high quality. We present the findings from systematic reviews along with an appraisal of the quality of each review.

- Low-quality reviews: conclusions drawn from these reviews can be applied with a low degree of confidence.
- Medium-quality reviews: conclusions drawn from these reviews can be applied with a medium degree of confidence.
- High-quality reviews: conclusions drawn from these reviews can be applied with a high degree of confidence.

Option 1 – Changing the way care is organized and delivered

The first option aims to implement models of care for patients with multiple chronic health conditions that improve the patient experience and improve health.

We found very few systematic reviews examining the effectiveness of models of care specifically for people with multiple chronic health conditions. These reviews found mixed and inconclusive evidence about their effectiveness. However, a recent and medium-quality review found that these types of models are at least comparable to, or more beneficial than, usual care.(33)

A recent high-quality review also found that patient-oriented interventions focusing on particular risk factors or on areas where patients with multiple chronic health conditions have difficulties were more effective than those with a broader focus.(19)

The same review found that interventions targeting more specific changes to how care is delivered (e.g., integrated treatment programs coordinated by case managers or individualized pharmaceutical care plans implemented by multidisciplinary teams) were more effective as compared to those with a broader focus (e.g., case management or changes in care delivery).(19)

Lastly, a recent high-quality review examined "complex and multifaceted pharmaceutical care" (e.g., outreach interventions by pharmacists, or screening of automated drug alerts by pharmacists visiting nursing homes). The review found that these interventions reduced inappropriate medication use and adverse drug events.(34)

Given the limited body of evidence, we propose here a model that could spur reflection about how care should be organized and delivered: the Chronic Care Model.(4;5) This model identifies six key characteristics of a health system that encourages high-quality management of chronic health conditions.(6) These six characteristics could inspire the discussions of the citizen panel.

Self-management support • Helping patients to manage their own health and care • e.g., providing information, emotional support, and strategies for living with chronic health conditions	**Decision support** • Helping providers and patients make informed decisions • e.g., encouraging the use of medical guidelines and tools to help patients make decisions
Delivery of care • Making sure that patients receive efficient care • e.g., clarifying roles among healthcare teams, providing case management, or providing care that patients understand and that fits their culture	**Clinical information systems** • Organizing patient and population data to facilitate more efficient care • e.g., an electronic health record that provides reminders for providers and patients, and monitors the performance of healthcare teams and the broader health system
Health system changes • Creating a culture, organizations and mechanisms that promote safe and high-quality care • e.g., encouraging leadership across the health system to bring about change, developing agreements to facilitate care coordination within and across organizations	**Community resources & policies** • Mobilizing resources in the community to meet the needs of patients, resources that are not necessarily part of the health system • e.g., forming partnerships with community organizations to fill gaps in services, or advocating for policies to improve patient care

Option 2 – Supporting patients to engage in conversations with their healthcare providers to prioritize amongst their multiple and complex care needs

When a patient has a single chronic health condition, their healthcare provider can really focus on finding the best treatment strategy for that condition. However, when a patient has two or more conditions, this is often not possible.

The second option proposed here aims to support patients in engaging in conversations with their healthcare providers to prioritize amongst their multiple and complex care needs, in a way that takes into account their values, needs and preferences. One way to do this would be to encourage greater 'shared decision-making.'

Shared decision-making can be defined as "the collaboration between the health care provider and the patient, through two-way communication and information exchange, to come to an agreement about a treatment decision."(35) This is often used when there is a need to prioritize multiple needs, and when there are several treatment options to consider.

We found no systematic review that examined the effectiveness of shared decision-making in the context of patients with multiple chronic health conditions. There is extensive literature on shared decision-making, but it does not necessarily address the complexity involved with patients with multiple chronic health conditions. Given this, we describe potential benefits and components of shared decision-making.

Shared decision-making is commonly advocated because it can have the following benefits: (35)

- improving the knowledge of patients and their capacity to remember information;
- creating more realistic expectations about the benefits and harms of various treatment options;
- reducing decisional conflict (that is, reducing the uncertainties that patients may have in choosing between different options);
- stimulating patients to take a more active role in decisions about their own healthcare; and
- increasing overall patient involvement and empowerment.

There are three key components to shared decision-making:(35)

- **decision support tools** include various tools to help patients be prepared for appointments with their healthcare providers and to make complex decisions (e.g., brochures, audiovisual materials, educational sessions, counselling sessions, computer programs, or interactive websites); (35)
- **patient decision aids** help patients become involved in decision-making by "making explicit the decision that needs to be made, providing information about the options and outcomes, and by clarifying personal values";(36) and
- **education and training for healthcare providers** to ensure that healthcare providers are informed about the principles and benefits of shared decision-making, have the skills to meaningfully engage their patients, and are willing to do so.(35)

Option 3 – Supporting patients to manage their own care

The third option aims to empower patients and prepare them to manage their health and healthcare. This is commonly referred to as self-management.(4;5) Self-management interventions should improve "an individual's ability to manage the symptoms, treatment, physical, psychosocial, and lifestyle changes inherent in living with a chronic condition."(3)

We found a large number of systematic reviews examining various self-management interventions. However, almost all of the reviews focused on self-management for single conditions (e.g., diabetes or cardiovascular diseases). No review focused specifically on patients with multiple chronic health conditions. While reviews of self-management for single conditions are important, they do not address the complexity involved with self-management for patients with multiple chronic health conditions. Given this, we describe a small number of reviews that focused on areas that seemed relevant to patients with multiple chronic health conditions.

We identified two systematic reviews that assessed patient education and family interventions as possible ways to help patients with chronic health conditions use self-management resources. Patient education (e.g., teaching sessions, group discussion and written materials) was identified by a recent medium-quality review as a way of supporting self-management for people with long-term conditions. The review found a range of positive outcomes, including increases in physical functioning, illness knowledge and the patients' belief in their own ability to manage their health.(37) In addition, a high-quality review found that family-oriented interventions for adults with chronic health conditions improved physical and mental health outcomes in both patients and caregivers.(38) These

family interventions were grouped in two categories: 1) educational and psycho-educational interventions to inform patients and family members about the chronic health conditions and about how these conditions affect their lives; and 2) interventions that address family relationships to improve family functioning with respect to health.

We identified reviews that outlined benefits for information and communication technology, home-based support and a range of interventions aimed at supporting appropriate medicine use by patients. Specifically, a high-quality review found that home telehealth (that is, delivering health-related services and information via telecommunications technologies while the patient is at home) can support improved outcomes for people with diabetes and heart failure.(39) Another review found that multidisciplinary home-based interventions combined with telemonitoring (that is, remotely monitoring patients who are not at the same location as the healthcare provider) for people with multiple chronic health conditions improved the overall quality of disease management.(40) Two other reviews also found e-health/information technology interventions in general had positive effects on supporting self-management.(41;42) Lastly, an overview of systematic reviews found that, in addition to self-management and self-monitoring in general, effective interventions for supporting appropriate medicine use by consumers included simplified dosing and interventions directly involving a pharmacist in medicine management.(43)

Summarizing what we know about the three options

In the following table we summarize what we know about each of the three options.

Option 1 – Changing the way care is organized and delivered

Summary of what is known about models of care for patients with multiple chronic health conditions

- Few systematic reviews examined the effectiveness of models of care specifically for people with multiple chronic health conditions, and these reviews found mixed and inconclusive evidence. However, a recent and medium-quality review found that these models of care were at least comparable to, or more beneficial than, usual care.(33)
- The following interventions were found beneficial:
  - patient-oriented interventions focusing on particular risk factors or on areas where patients with multiple chronic health conditions have difficulties;(19)
  - interventions targeting more specific changes to how care is delivered by organizations (e.g., integrated treatment programs coordinated by care managers or individualized pharmaceutical care plans implemented by multidisciplinary teams);(19) and
  - complex and multifaceted pharmaceutical care (e.g., outreach interventions by pharmacists, or screening of automated drug alerts by pharmacists visiting nursing homes), inappropriate medication use and adverse drug events.(34)

Option 2 – Supporting patients to engage in conversations with their healthcare providers to prioritize amongst their multiple and complex care needs

Summary of what is known about engaging patients in shared decision-making

- We found no systematic review that examined the effectiveness of shared decision-making in the context of patients with multiple chronic health conditions.
- There are three key components to shared decision-making:(35)
  - decision support tools (e.g., brochures, audiovisual materials, educational sessions, counselling sessions, computer programs, or interactive websites);
  - patient decision aids (that is, tools helping to make explicit the decision to be made, providing information about the options and outcomes, and helping patients clarify their personal values); and
  - education and training for healthcare providers.

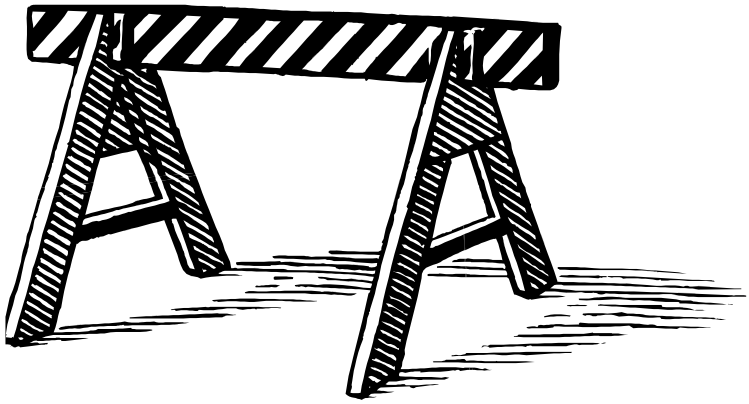
Option 3 – Supporting patients to manage their own care

Summary of what is known about self-management for patients with multiple chronic health conditions

- We found no systematic review focusing on self-management for patients with multiple chronic health conditions.
- The following interventions were found beneficial to support self-management for patients with chronic health conditions:
  - patient education;(37)
  - family interventions;(38)
  - information and communication technology (e.g., home telehealth and telemonitoring);(40-42)
  - home-based support;(39) and
  - interventions aimed at supporting appropriate medicine use by patients.(43)

Implementation considerations

It is important to consider what barriers we may face if we implement the proposed options. These barriers may affect different groups (e.g., patients, citizens, healthcare providers), different healthcare organizations or the health system. While some barriers could be overcome, others could be so substantial that they force us to re-evaluate whether we should pursue that option.



The implementation of each of the three options could also be influenced by the ability to take advantage of potential windows of opportunity. A window of opportunity could be a recent event that was highly publicized in

the media, a crisis, a change in public opinion, or an upcoming election. A window of opportunity can facilitate the implementation of an option.

A list of potential barriers and windows of opportunity 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 windows of opportunity from a range of sources (not just the research literature) and we have not rank ordered them in any way.

Option 1 – Changing the way care is organized and delivered	
Barriers	Windows of opportunity
• Some healthcare providers may lack the incentives necessary to change how they provide care • System leaders may face difficulties in developing a shared vision about how care should be organized and delivered	• A lot of investments have been made in primary care for the last decade, and many healthcare providers are now practising in more innovative delivery models
Option 2 – Supporting patients to engage in conversations with their healthcare providers to prioritize amongst their multiple and complex care needs	
Barriers	Windows of opportunity
• Some patients may find shared decision-making as a source of distress (44) • Some healthcare providers may find it more complicated to engage patients with multiple chronic health conditions • Some healthcare providers may not have the time or resources to meaningfully engage their patients in shared decision-making (45)	• Many patients are keen to participate actively in decisions about their own care
Option 3 – Supporting patients to manage their own care	
Barriers	Windows of opportunity
• Some patients may perceive that a focus on self-management means that their providers are abandoning them • Some healthcare providers may resist the use of self-management supports that are not appropriately remunerated • Some disease-based charities may resist efforts to move beyond a single disease focus in their self-management supports	• Many patients are keen to participate actively in the management of their conditions

Questions for the citizen panel

>> We want to hear your views about the problem, the 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 in finding viable solutions to the problem.

More specifically, the panel will provide an opportunity to explore the questions outlined in Box 4. 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.

>> What are the most important challenges faced by people with multiple chronic health conditions?

>> What are your views about the three proposed options?

- ☐ **Option 1** – What key features or values should underpin models of care for people with multiple chronic health conditions (e.g., building appointments around the needs of patients, not providers)?
- ☐ **Option 2** – What support would patients need to engage in conversations with their healthcare providers to prioritize their care needs?
- ☐ **Option 3** – What support would patients need to manage their own care?

>> What are potential barriers and windows of opportunity to implement these three options?

Box 4

Acknowledgments

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Conflict of interest

The authors declare that they have no professional or commercial interests relevant to the citizen brief. The funders 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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