

Evidence Brief

Improving Hospital-To-Home Transitions for Older Adults with Complex Health and Social Needs in Ontario

9 and 10 December 2020



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McMaster Health Forum

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

Authors

François-Pierre Gauvin, PhD, Senior Scientific Lead, Citizen Engagement and Evidence Curation, McMaster Health Forum

Kerry Waddell, M.Sc., Technical Focal Point, Rapid-Improvement Support and Exchange

Rebecca Ganann, RN PhD, Assistant Professor, School of Nursing, McMaster University

Gail Heald-Taylor, Caregiver Research Partner, Aging, Community and Health Research Unit, School of Nursing, McMaster University

Maureen Markle-Reid, RN MScN, PhD, Professor and Canada Research Chair in Person Centred Interventions for Older Adults with Multimorbidity and their Caregivers; Scientific Director, Aging, Community and Health Research Unit, School of Nursing, McMaster University

Carrie McAiney, PhD, Associate Professor, School of Public Health and Health Systems, Schlegel Research Chair in Dementia, University of Waterloo

John N. Lavis, MD PhD, Director, McMaster Health Forum, and Professor, McMaster University

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Conflict of interest

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

Merit review

The evidence brief was reviewed by a small number of policymakers, stakeholders and researchers in order to ensure its scientific rigour and system relevance.

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KEY MESSAGES

What is the problem?

- We identified six factors that make it hard for older adults with complex health and social needs (and their caregivers) to become involved in their own health and care during the transition from hospital to home:
 - many older adults have a wide range of complex health and social needs that make hospital-to-home transitions complex and risky;
 - despite a growing body of research evidence about the experiences of older adults with complex health and social needs (and their caregivers) during hospital-to-home transitions, there is still a knowledge-to-practice gap;
 - caregivers often feel unprepared to support hospital-to-home transitions;
 - the health system is not currently designed to support older adults with complex health and social needs during hospital-to-home transitions;
 - the pressures being placed on health and social systems to respond to the ongoing COVID-19 pandemic affect hospital-to-home transitions; and
 - bringing about system changes takes time, resources and commitment from many players, including older adults, family caregivers, providers, organizations and the system as a whole.

What do we know (from systematic reviews) about three elements of a potentially comprehensive approach to addressing the problem?

- Element 1 – Enabling older adults and their caregivers to play a role in their own care during hospital-to-home transitions
 - There is limited evidence about the effectiveness of self-management strategies for individuals with multiple chronic conditions, but they seem effective for individuals who have one health condition to manage. Discharge tools co-designed with patients can help hospital-to-home transitions.
- Element 2 – Enabling providers to improve the quality of hospital-to-home transitions
 - Several strategies seem effective to improve transitions, including strategies that are used early in the hospital admission, during the hospital stay and transition process, close to time of discharge, and after discharge.
- Element 3 – Enabling decision-makers to make small yet rapid changes to improve the quality of hospital-to-home transitions
 - This element focuses on an approach called “rapid-learning systems.”
 - We were unable to find any systematic reviews that directly address the use of rapid-learning systems related to improving hospital-to-home transitions per se, however, we included two reviews and a series of case studies that related broadly to the characteristics of a rapid-learning system.

What implementation considerations need to be kept in mind?

- While many barriers to improving hospital-to-home transitions may exist at the level of patients, caregivers, providers, provider organizations and systems, perhaps the biggest barrier lies in the many silos in the system making it difficult to improve hospital-to-home transitions.
- One of the biggest windows of opportunity is that improving hospital-to-home transitions is at the centre of major reforms in Ontario (such as the creation of Ontario Health Teams), and has been shown to be increasingly important in light of the pressures being placed on the acute-care sector to respond to the ongoing COVID-19 pandemic. Together, these create a burning platform to improve the quality of hospital-to-home transitions for older adults with complex health and social needs (and their caregivers).

REPORT

Hospital-to-home transitions can be stressful experiences for patients and caregivers, often requiring significant adjustments to their lives to manage their own health and care. This may include using a new medication or treatment, changes in physical and cognitive functions requiring different supports, or working with a different care team from different sectors (including home and community care, primary care, specialty care, and rehabilitation care).(1)

This transition can be particularly stressful and destabilizing for older adults with complex health and social needs (and for their caregivers too). It is increasingly common for older adults to have multiple chronic conditions, defined as two or more conditions. Many are living with mental health conditions (anxiety, depression, and Alzheimer's and other dementias). Many are also frail and have severe levels of health instability.(2-4) These older adults are at increased risk for poor quality of life and poor health outcomes, particularly when they are transitioning from hospital to home.(5) Further, as they transition between sectors, many older adults experience fragmented care from multiple care providers who often lack a common system for coordination and communication.(6-7)

In addition, many older adults with complex health needs live in complex social circumstances. For example, research evidence has found that the burden of multimorbidity is greater among people living in low-income neighbourhoods.(8) These individuals may be financially insecure, lonely, geographically isolated, live in inadequate and unaffordable housing, have limited ability to use health information, or may be unaware of support services in their community.(9) They face inequities related to the social determinants of health or are at risk for poor outcomes related to the social determinants of health. These may also negatively affect the transition from hospital to home.

Quality transitions from hospital to home result in a number of positive outcomes, including:

- reduced length of stay at the hospital;(10)
- reduced hospital readmissions;(10-12)
- increased use of appropriate primary-care services that could help to prevent health problems;(11)
- increased use of appropriate home- and community-care services;(11)

Box 1: Background to the evidence brief

This evidence brief mobilizes both global and local research evidence about a problem, approach elements for addressing the problem, and key implementation considerations. Whenever possible, the evidence brief summarizes research evidence drawn from systematic reviews of the research literature and occasionally from single research studies. A systematic review is a summary of studies addressing a clearly formulated question that uses systematic and explicit methods to identify, select and appraise research studies, and to synthesize data from the included studies. The evidence brief does not contain recommendations, which would have required the authors of the brief to make judgments based on their personal values and preferences, and which could pre-empt important deliberations about whose values and preferences matter in making such judgments.

The preparation of the evidence brief involved five steps:

- 1) convening a Steering Committee comprised of representatives from the partner organizations and the McMaster Health Forum;
- 2) developing and refining the terms of reference for an evidence brief, particularly the framing of the problem and three viable approach elements for addressing it, in consultation with the Steering Committee and a number of key informants, and with the aid of several conceptual frameworks that organize thinking about ways to approach the issue;
- 3) identifying, selecting, appraising and synthesizing relevant research evidence about the problem, approach elements and implementation considerations;
- 4) drafting the evidence brief in such a way as to present concisely and in accessible language the global and local research evidence; and
- 5) finalizing the evidence brief based on the input of several merit reviewers.

The three elements for addressing the problem were not designed to be mutually exclusive. They could be pursued simultaneously or in a sequenced way, and each approach element could be given greater or lesser attention relative to the others.

The evidence brief was prepared to inform a stakeholder dialogue at which research evidence is one of many considerations. Participants' views and experiences and the tacit knowledge they bring to the issues at hand are also important inputs to the dialogue. One goal of the stakeholder dialogue is to spark insights – insights that can only come about when all of those who will be involved in or affected by future decisions about the issue can work through it together. A second goal of the stakeholder dialogue is to generate action by those who participate in the dialogue and by those who review the dialogue summary and the video interviews with dialogue participants.

- reduced admission to long-term care homes;(13)
- better health outcomes and quality of life;(14) and
- improved patient and caregiver experience of care.(15)

Unfortunately, hospital-to-home transitions are often poorly planned and supported. These situations pose serious safety risks to older adults, lead to complications and hospital readmissions, and put an added strain on older adults, their caregivers and the entire health system.(16-18)

Improving hospital-to-home transitions is a high priority for patients, families, caregivers and other stakeholders in Ontario. A growing body of research evidence has explored the experiences of patients and caregivers during hospital-to-home transitions, what matters most to them, and promising ways to improve transitions in the province.(6; 19-22)

It was also featured prominently throughout reports published from the Premier's Council on Ending Hallway Medicine, and the Ontario's first Patient Ombudsman, as well as playing a central role in the ongoing provincial health reforms.(23-24) Further, Ontario Health, Quality Business Unit, released in 2019 a quality standard focused on hospital-to-home transitions.(25) That same year, the government announced major health-system reforms. One key element of these reforms is the creation of Ontario Health Teams in which all healthcare providers in a given geographic area work as a coordinated team to provide care to a defined population. The reforms aim to break down the silos in the system (such as those that exist between specialty care, primary care, and home and community care), provide more integrated care, and improve care transitions.(23; 26-27)

As the province resumes its work with the first cohort of 29 Ontario Health Teams and is announcing plans for a second cohort, there is a unique opportunity to 'bake-in' changes that could improve hospital-to-home transitions for older adults with complex health and social needs (and their caregivers). It is also an opportunity to explore how older adults and their caregivers could be engaged more meaningfully during hospital-to-home transitions.(28)

In addition to being timely for ongoing provincial initiatives, hospital-to-home transitions are increasingly important in light of the pressures being placed on the acute-care sector to respond to the ongoing COVID-19 pandemic. Together, these create a burning platform from which to address how patients, families, caregivers, providers, researchers, health- and social-system leaders and other stakeholders can improve the quality of hospital-to-home transitions for older adults with complex health and social needs (and their caregivers).

Box 2: Equity considerations

A problem may disproportionately affect some groups in society. The benefits, harms and costs of options to address the problem may vary across groups. Implementation considerations may also vary across groups.

One way to identify groups warranting particular attention is to use "PROGRESS," which is an acronym formed by the first letters of the following eight ways that can be used to describe groups†:

- place of residence (e.g., rural and remote populations);
- race/ethnicity/culture (e.g., First Nations and Inuit populations, immigrant populations and linguistic minority populations);
- occupation or labour-market experiences more generally (e.g., those in "precarious work" arrangements);
- gender;
- religion;
- educational level (e.g., health literacy);
- socio-economic status (e.g., economically disadvantaged populations); and
- social capital/social exclusion.

The evidence brief strives to address all Ontarians, but (where possible) it also gives particular attention to:

- older adults with multiple chronic conditions and co-occurring mental health conditions; and
- older adults living in rural, remote and northern areas.

Many other groups warrant serious consideration as well, and a similar approach could be adopted for any of them.

† The PROGRESS framework was developed by Tim Evans and Hilary Brown (Evans T, Brown H. Road traffic crashes: operationalizing equity in the context of health sector reform. *Injury Control and Safety Promotion* 2003;10(1-2): 11–12). It is being tested by the Cochrane Collaboration Health Equity Field as a means of evaluating the impact of interventions on health equity.

Aim of the evidence brief

This evidence brief aims to inform deliberations that could help to improve the quality and experience of hospital-to-home transitions for older adults with complex health and social needs (and their caregivers) in Ontario. In doing so, it mobilizes the best available evidence to identify: 1) the challenges in improving hospital-to-home transitions; 2) three elements of a potentially comprehensive approach to address the problem; and 3) key implementation considerations for these elements. As explained in Box 1, the evidence brief does not contain recommendations. Moving from evidence to recommendations would have required the authors to introduce their own values and preferences. Instead, the intent is for this evidence brief to inform deliberations where participants in a stakeholder dialogue will themselves decide what actions are needed based on the available evidence, their own experiential knowledge, and insights arising through the deliberations.

To draw attention to equity considerations in the framing of the problem and identification of potential solutions, the evidence brief also focuses on two groups that were identified by the Steering Committee and key informants. Specifically, when considering the challenges in improving hospital-to-home transitions, the evidence brief explores equity considerations from the perspective of two groups: 1) older adults with multiple chronic conditions and co-occurring mental health conditions; and 2) older adults living in rural, remote and northern areas. Hospital-to-home transitions may pose particular equity challenges for both (see Box 2). Many other groups warrant serious consideration as well, and a similar approach could be adopted for any of them.

Key definitions

This evidence brief uses several key terms that need to be defined, and in some cases described. The terms and their definitions and descriptions are outlined in Table 1.

Table 1. Key definitions

Term	Definition and description
Caregiver	<ul style="list-style-type: none"> An individual who provides ongoing care and assistance, without pay, for a family member or a friend in need of support due to physical, cognitive or mental health conditions. In addition to family members or significant others, friends, neighbours, or members of a faith community may be caregivers. Caregivers are increasingly recognized as ‘care partners’ and members of the ‘care team’.
Chronic condition	<ul style="list-style-type: none"> A health problem requiring ongoing management over a period of years or decades (for example, arthritis, asthma, cancer, depression, dementia, diabetes and heart disease).(29)
Engagement	<ul style="list-style-type: none"> Patients, caregivers and professionals working in active partnership to improve health. Patients and caregivers can be engaged at various levels: in their own care, in the organizations that deliver care, and in policymaking.(30)
Frailty	<ul style="list-style-type: none"> Frailty is most often considered to be a type of vulnerability related to physical, emotional and social factors.(31-32) In relation to physical factors, frailty often results from an accumulation of deficits in health and is experienced as: <ul style="list-style-type: none"> having a general lack of strength; being more vulnerable to disease (e.g., one or more chronic diseases) or disability (e.g., lack of mobility); and deteriorating in health more quickly as a result of diseases and disability. Emotional and social factors can relate to many things that lead to vulnerability (and eventually greater risk of functional impairments and disease), including lack of emotional and social support, and social isolation.(31) While frailty is closely linked with both chronic disease and disability, it cannot be considered synonymous with them. For example, older adults can be frail without having a chronic disease or disability. Similarly, frailty can precede the onset of either a disease or disability, or be the result of them.(31-32)
Health	<ul style="list-style-type: none"> “A state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.”(33)

Home	<ul style="list-style-type: none"> • A person's usual place of residence, which may include a personal residence, a retirement home, an assisted-living facility or a shelter.(25)
Home and community care	<ul style="list-style-type: none"> • Home and community care refers to an array of publicly and privately funded services to help people receive "care at home, rather than in a hospital or long-term care facility, and to live as independently as possible in the community."(34) • Home and community care is delivered by various health- and social-care organizations (e.g., third-party contractors paid by provincial or regional health authorities), professionals (e.g., nurses, dietitians and social workers), other types of health workers (e.g., personal-support workers), and unpaid caregivers (e.g., family members, friends and volunteers). • From a programmatic perspective, home care can include: 1) professional services to assess clients' needs (e.g., nursing care, physiotherapy, occupational therapy, respiratory therapy, speech-language therapy, and social work); 2) services by care coordinators (i.e., a trained health professional in charge of coordinating a patient's care delivery from multiple providers); 3) services by system navigators (i.e., a trained professional, trained volunteer or peer who helps patients and families in need of home and community care to access services, guides them through the health and social systems, and helps them overcome barriers they may face; 4) personal-support services to help clients with daily care (e.g., bathing, dressing, eating and personal hygiene); 5) homemaking services (e.g., cleaning, planning and preparing meals, caring for children); and 6) end-of-life care with in-home visits and respite care.(35) • Community care can include: 1) adult day programs; 2) supportive housing (e.g., personal support, homemaking); 3) retirement homes (e.g., personal support, homemaking services, social and recreational opportunities); and 4) transportation services. Other examples could include community and residential hospice services such as counselling and support groups, exercise and falls-prevention programs, and assistive-devices programs (e.g., enteral feeding supplies, insulin pumps and supplies for diabetics).(35)
Hospital-to-home transition	<ul style="list-style-type: none"> • The process of supporting patients who are being discharged from hospital and are moving back home. The aim is to help patients to manage their health and care, and also support all members of the care team (including the patients and caregivers) to work together to deliver home and community care.
Integrated care	<ul style="list-style-type: none"> • Care that addresses both the health and social needs of individuals, and that is provided in a seamless and coordinated way across providers, organizations and sectors.
Mental health condition	<ul style="list-style-type: none"> • A wide range of conditions that affect people's mood, thinking and behaviour (for example, anxiety, depression, and Alzheimer's and other dementias).
Self-management	<ul style="list-style-type: none"> • An individual's ability to manage the symptoms, treatment, physical, psychosocial, and lifestyle changes inherent in living with a chronic condition. • It empowers patients and prepares them to manage their healthcare, to stay well and to maintain good physical and emotional well-being (e.g., eating well, exercising, taking medication, monitoring and managing symptoms). • It is sometimes referred to as 'self-care'.
Social determinants of health	<ul style="list-style-type: none"> • Many factors can have an influence on health, including someone's genetics and lifestyle choices, but also where someone was born, grow, live, work and age.(36) The social determinants of health refer to the social and economic factors influencing health,(37) such as: <ul style="list-style-type: none"> ○ Indigenous status; ○ disability; ○ education; ○ employment and working conditions; ○ early childhood development; ○ ethnocultural background; ○ food insecurity; ○ gender; ○ health services; ○ housing; ○ income and income distribution; ○ social exclusion; ○ social safety network; and ○ unemployment and job security. • Addressing the social determinants of health is key to achieving health equity.

THE PROBLEM

We identified six factors that make it challenging to improve hospital-to-home transitions for older adults with complex health and social needs (and their caregivers) in Ontario:

- 1) many older adults have a wide range of complex health and social needs that make hospital-to-home transitions complex and risky;
- 2) despite a growing body of research evidence about the experiences of older adults with complex health and social needs (and their caregivers) during hospital-to-home transitions, there is still a knowledge-to-practice gap;
- 3) caregivers often feel unprepared to support hospital-to-home transitions;
- 4) the health system is not currently designed to support older adults with complex health and social needs during hospital-to-home transitions;
- 5) the pressures being placed on health and social systems to respond to the ongoing COVID-19 pandemic affect hospital-to-home transitions; and
- 6) bringing about system changes takes time, resources and commitment from many players, including older adults, caregivers, providers, organizations and the system as a whole.

Many older adults have a wide range of complex health and social needs that make hospital-to-home transitions complex and risky

Many older adults have a wide range of complex health needs (both physical and mental). For example, older adults are more likely to have complex health needs associated with multiple chronic conditions.(38) Across the country, approximately 29% of Canadians are living with one chronic condition, but 15% have two chronic conditions, and 7% have three or more chronic conditions. Living with multiple chronic conditions is something that is more likely to affect older adults. In Ontario, 43% of adults over the age of 65 have two or more chronic conditions.(29)

Older adults with multiple chronic conditions (compared to those without multiple chronic conditions) report lower levels of health-related quality of life, and have higher levels of disability, mortality and caregiver burden.(39) Hospital readmissions are also frequent among older adults with multiple chronic conditions. A matched cohort study in Ontario found that as many as one in three complex patients 66 years and older are readmitted to hospital within one year of their initial visit.(40) Thus, multimorbidity and hospital readmissions have both a cost to the system from additional service use, as well as costs to those caring for patients who shoulder a disproportionate amount of work supporting the transition process.

The complex health needs of older adults are often intertwined with complex social needs.(41) Unmet social needs put these individuals at greater risk for poor health outcomes.(42-43) These older adults may:

- lack social support;
- be lonely;
- be geographically isolated;
- be financially insecure;
- live in inadequate and unaffordable housing;
- have limited access to transportation;
- lack access to affordable, nutritious food;

Box 3: Mobilizing research evidence about the problem

The available research evidence about the problem was sought from a range of published and 'grey' research literature sources. Published literature that provided a comparative dimension to an understanding of the problem was sought using three health services research 'hedges' in MedLine, namely those for appropriateness, processes and outcomes of care (which increase the chances of us identifying administrative database studies and community surveys). Published literature that provided insights into alternative ways of framing the problem was sought using a fourth hedge in MedLine, namely the one for qualitative research. Grey literature was sought by reviewing the websites of a number of domestic and international organizations, such as: the Aging, Community and Health Research Unit at McMaster University; the Ontario Health, Quality Business Unit; Ontario Caregiver Organization; The Change Foundation; IC/ES; Canadian Institute for Health Information; and Statistics Canada.

Priority was given to research evidence that was published more recently, that was locally applicable (in the sense of having been conducted in Canada), and that took equity considerations into account.

- have limited access to health and social services (or may not seek these services when in need);
- have limited access to services that are linguistically and culturally sensitive; or
- have marginalized identities that put them at greater risk for discrimination and being excluded.(44)

Addressing the wide range of health and social needs of older adults is challenging. A recent Canadian study examined the experiences of community-dwelling older adults, family caregivers and healthcare providers about managing multiple chronic conditions.(45) The study revealed the large gap between the needs of older adults (and the needs of their caregivers) and the ability of health and social systems to meet these needs. The care experiences were described as “piecemeal and fragmented with little focus on the person and family as a whole.”(45) Older adults with complex health and social needs (particularly those who are frail) are very susceptible to stressors which would include abrupt changes of environments or routine such as during a care transition.(46) Thus, efforts to improve the situation will likely hinge on how well transitions are managed and integrated in the system, given the complex health and social needs of many older adults.

Despite a growing body of research evidence about the experiences of older adults with complex health and social needs (and their caregivers) during hospital-to-home transitions, there is still a knowledge-to-practice gap

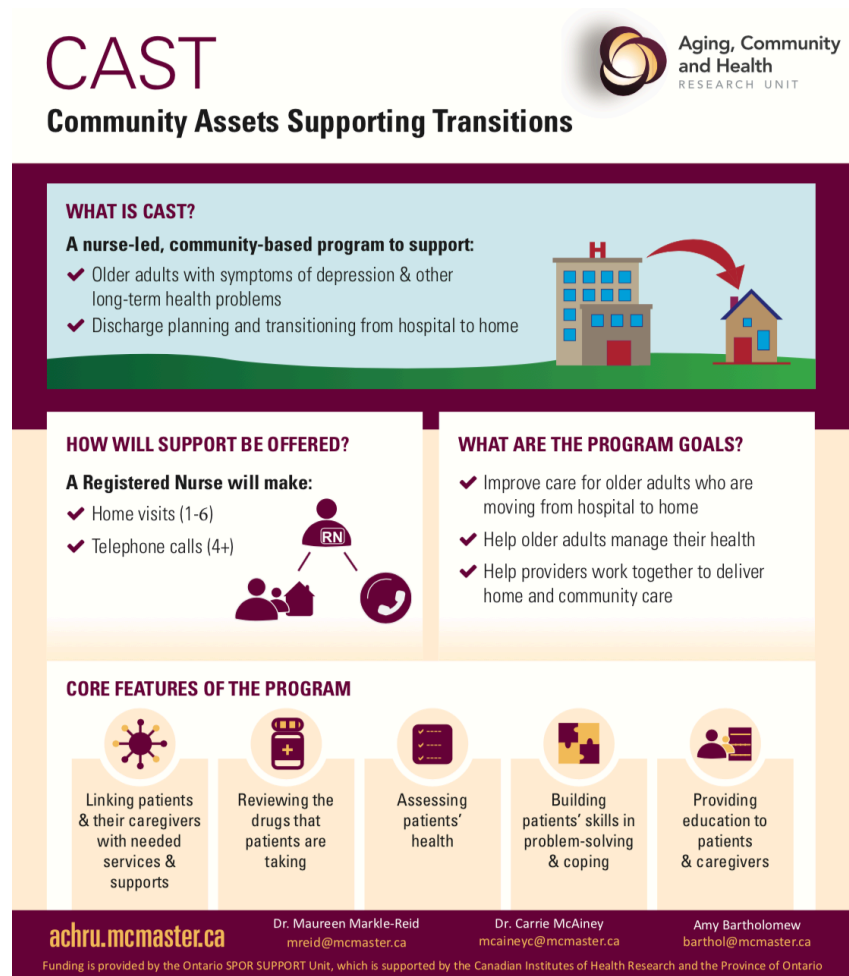
A growing body of research evidence has explored the experiences of patients and caregivers during hospital-to-home transitions, what matters most to them, and promising ways to improve transitions in the province. Some of these studies have also examined those with complex health and social needs (such as those with multimorbidity and co-occurring mental health conditions).(47-49)

For instance, the Geriatric Health Systems Research Group at the University of Waterloo led large mixed-methods studies to examine hip-fracture transitions across the system in Ontario, along with using and sharing of health information during transitions across sectors.(50-59)

Recently, the Aging, Community and Health Research Unit at the McMaster University led the Community Assets Supporting Transitions (CAST) study. The study aimed to determine the effectiveness, implementation and costs of a hospital-to-home support program for older adults with multiple chronic conditions and depressive symptoms. This nurse-led model includes home visits, telephone follow-up, and nurse-led care coordination over a period of six months (Figure 1). The researchers are working side-by-side with patients, caregivers and providers from three communities in Ontario (Burlington, Hamilton and Sudbury) to tailor the model to each community.(20; 47) This hospital-to-home transition model was studied as part of a six-month integrated transitional-care stroke intervention delivered by an interprofessional team (including occupational therapists, physiotherapists, speech-language pathologists, registered nurses, and social workers). The intervention involved multiple components: care coordination, home visiting, and interprofessional case conferences supported by a web-based application. Participants in this study had complex health and social needs (with an average of eight chronic conditions). Findings revealed that the intervention was feasible and acceptable to both older adults and providers. While there was no statistically significant difference in health outcomes from baseline to six months, the intervention resulted in improvements in one aspect of patient experience. The study sample fell below the target sample (enrolled 127, targeted 216), which can account for the study’s non-significant findings.

A second study led by the Aging, Community and Health Research Unit examined the feasibility of a 6-month integrated transitional care stroke intervention. It explored the effects of this intervention on health outcomes, patient and provider experience, and cost in 30 community-living older adults (≥55 years) with stroke and multimorbidity using outpatient stroke rehabilitation services. The findings revealed that such intervention was feasible and acceptable to both stroke survivors and providers. No statistically significant difference in health outcomes was found from baseline to 6 months. However, there was a significant reduction in the total per person use and costs of health services.(49)

Figure 1. The Community Assets Supporting Transitions (CAST) study



Source: Aging, Community and Health Research Unit (21)

Another recent Ontario-based study identified six key areas affecting the experience of hospital-to-home transitions: 1) home and community care; 2) the discharge process; 3) medical follow-up after discharge; 4) medications; 5) patient and caregiver education; and 6) the kindness and caring of the healthcare team in hospital. Study participants indicated that the most notable challenges were the “timeliness, sufficiency, reliability and consistency” of publicly-funded home-care services.(15)

This study identified the biggest gaps that should be the focus of the health system in order to improve hospital-to-home transitions: The three biggest gaps were: 1) not enough publicly funded home-care services to meet their needs; 2) home-care support not being in place when arriving at home from hospital (along with the required home modifications, which may be costly, and considerations for which take time and planning); and 3) having to advocate for themselves to get enough home care.(19)

This resonates with international studies examining older adults’ experiences of adapting to daily life after going back home from hospital.(60) Studies revealed that older adults often experienced an insecure or unsafe transition, and had difficulty settling into their new situation at home (Table 2).

Table 2. Older adults' experiences of adapting to daily life after going back home from hospital (60)

Challenges	Examples
Experiencing an insecure and unsafe transition	<ul style="list-style-type: none"> • Lacking information about their health situation, treatment and/or care • Experiencing a rushed discharge • Being confused about medication and how to take their medications • Not being engaged in their own care • Not being engaged in decisions about their own life • Not understanding the information being provided to them (or not explained well) • Lacking coordination and communication between the different providers (which may lead to errors in treatment and other adverse events) • Conflicting opinions between providers • Not having all their medication reviewed by the care team
Having difficulty settling into a new situation at home	<ul style="list-style-type: none"> • Being dependent on additional help from others • Losing independence • Home not being prepared (for example, lack of specialized equipment and assistive devices) • Having problems performing daily activities • Not receiving care according to needs • Not feeling ready to go home (or not feeling confident to go home) • Having to change care team (and managing appointments) disrupted efforts to get back to their daily routines • Feeling lonely and isolated • Feeling depressed and experiencing no meaning in life

This growing body of research evidence illustrates that a significant amount is known about the experiences of older adults with complex health and social needs (and their caregivers) during hospital-to-home transitions, but that there remains a gap between the research evidence and the actual practices and policies related to hospital-to-home transitions.

Caregivers often feel unprepared to support hospital-to-home transitions

Caregivers provide essential support to older adults transitioning from hospital to home. In Ontario, roughly 3.3 million people, or 29% of the provincial population, are caregivers to friends or family with a long-term health condition or aging-related needs. Of these, the majority are women and roughly 2.5 million are balancing caregiving alongside paid employment.(61) Older adults with multiple chronic conditions have greater care needs and rely more heavily on their caregivers compared with those with a single chronic condition.(29; 62) As a report from the Canadian Medical Association pointed out: “Much of the burden of continuing care falls on caregivers.”(63)

Caregivers play many important roles during hospital-to-home transitions, including:

- helping the care team identify the health and social needs of older adults (and the needs of the caregivers who will be providing care at home);
- taking notes and asking questions;
- providing emotional support;
- accompanying older adults to medical appointments;
- reporting or managing side effects;
- giving medication;
- keeping track of medicines, test results and papers;
- providing physical care (for example, feeding, dressing and bathing);
- coordinating home and community care, primary care and specialty care;
- advocating for access to necessary care;
- keeping family and friends informed; and

- making legal and financial arrangements.

Despite their crucial role, caregivers often feel unprepared to provide care at home.(15) Caregivers are increasingly asked to perform complex medical treatments such as tube feedings, wound care and injections, in addition to at-home tasks such as laundry, meal preparation and cleaning. Many caregivers report receiving little guidance or coaching from healthcare providers about how to manage the care of their loved one before discharge, and on an ongoing basis. This results in feeling unprepared to self-manage their health, resulting in distress and anxiety. The more complexity the person caregivers are supporting displays, the greater these negative feelings tend to be.(61; 64) This aligns with findings from a recent Canadian study which concluded that caregivers viewed supporting their loved ones with managing multiple chronic conditions as “overwhelming, draining and complicated” and “being split into pieces.”(45)

In addition to the perceived lack of preparedness, caregivers face barriers to accessing practical, social, emotional, and financial support that can affect hospital-to-home transitions.(15; 62; 64) A report by Ontario Health, Quality Business Unit revealed that more than one in four individuals receiving care at home were relying on a caregiver who experienced “continued distress, anger or depression in relation to their caregiving role.”(65) Caregivers of older adults with multiple chronic conditions and Alzheimer’s disease are known to experience very complex and distressing transitions. Studies have shown that they must take on complex, new roles and responsibilities, must deal with responsive behaviours/personal expressions associated with dementia, and often feel isolated.(66-68)

This lack of support can have a negative impact on the physical and mental health of caregivers, their personal and professional lives, and the quality of care that they provide during hospital-to-home transitions. As reported by a discussion forum of Canada’s leading cancer, mental health and caregiver groups: “Failure to recognize, acknowledge and support family caregivers heightens their risk of becoming ‘collateral casualties’ of the illness, compromises their health, reduces the efficacy of the help they can provide to their relatives, and increases costs to the health and social service systems.”(69)

The health system is not currently designed to support older adults with complex health and social needs during hospital-to-home transitions

Several system-level factors make it difficult to support older adults with complex health or social needs (and their caregivers) during hospital-to-home transitions. These include challenges related to: governance arrangements (who can make what types of decisions); financial arrangements (how money flows from taxpayers to government to organizations and professionals); and delivery arrangements (how care is organized). We discuss each of these in further detail below (Table 3).

Table 3. System-level challenges

Challenge	Example/description of the challenge
Governance arrangements (<i>who can make what types of decisions</i>)	<p>Jurisdictional complexity</p> <ul style="list-style-type: none"> • Decision-making authority for addressing the many health and social needs of older adults often spans a wide range of government departments (Ministry of Health, Ministry of Long-Term Care, and Ministry for Seniors and Accessibility) and different levels of governments (for example, municipal, provincial and federal). • This complex mosaic of players and the interactions between them make integrated and coordinated policy and programmatic approaches to hospital-to-home transitions difficult. <p>Lack of data about hospital-to-home transitions</p> <ul style="list-style-type: none"> • While there is a growing body of data from patient- and caregiver-experience surveys and home-care need assessments (e.g., interRAI),(15; 19) data is not routinely collected to understand what happens to older adults with complex health and social needs (and their caregivers) after being discharged (and beyond hospital readmissions).

	<ul style="list-style-type: none"> • Much of the data being collected are about providers and not about patient-reported experiences and patient-relevant outcomes, caregivers, or about the broader social determinants of health. • Current data systems are not connected to each other and are not interoperable.
Financial arrangements (<i>how money flows from taxpayers to government to organizations and professionals</i>)	<p>Older adults and their caregivers may face an additional financial burden during hospital-to-home transitions</p> <ul style="list-style-type: none"> • Older adults and their caregivers may have to pay for home- and community-care supports (such as rehabilitation, therapy, a home-care nurse, personal-support worker), which may not be available in their region, along with other expenses (e.g., assistive devices, home modifications, transportation to appointments).(15; 19) • Informal and family caregivers are losing out on earning income and are using their retirement savings to support caregiving. It is estimated that there are more than two million unpaid caregivers in Canada (70-71) and the estimated economic value of their contributions is in the range of \$25 billion per year.(72) Financial support for caregivers remains limited. <p>How doctors are paid is not conducive to support integrated and comprehensive care</p> <ul style="list-style-type: none"> • Many doctors are paid for each separate service they provide, which is not conducive to supporting integrated care for patients with complex health and social needs, and may promote fragmentation in the system.(73) <p>How hospitals are funded is not conducive to support the patients back in the community</p> <ul style="list-style-type: none"> • Current funding models for hospitals in Ontario do not create incentives to support patients in the community. <p>The home- and community-care sector is underfunded</p> <ul style="list-style-type: none"> • Due to limited funding, home- and community-care resources are very limited and have restrictive eligibility criteria.(15; 19; 74) • Home and community care is funded separately from hospital care. When hospitals save money for shorter lengths of stay, it may increase the costs for the home- and community-care sector. <p>Financial burden on the broader health system</p> <ul style="list-style-type: none"> • High-needs users (some of whom are older adults with complex health and social needs) have a significant financial impact on the health system in Ontario. • It is estimated that 1% of the population accounts for 33% of healthcare costs, and 5% accounts for 66% of healthcare costs.(75) • This illustrates how important it is to identify the characteristics of high-need users, proactively reach out to them, and find more cost-effective ways to provide the care they need.
Delivery arrangements (<i>how care is organized</i>)	<p>Older adults with complex needs are not always identified when being admitted and before being discharged from hospital</p> <ul style="list-style-type: none"> • Delirium and depression among older adults admitted to hospitals is often unrecognized and untreated. And even when it is recognized, it often goes untreated.(76) This may lead to poor quality of life and increased use of health services. • However, there is some progress on that front. InterRAI systems exist for acute care that start with triaging in the emergency departments in order to identify those who should have a comprehensive assessment right away in the hospital. That way, frail older adults are less likely to have delirium and functional decline, and thus the transition should be improved. <p>Older adults with complex health and social needs (and their caregivers) are not always engaged meaningfully in planning their transition back home</p> <ul style="list-style-type: none"> • There are often organizational pressures to discharge patients rapidly (resulting in limited capacity to meaningfully engage patients and caregivers in conversations about hospital-to-home transitions). • Hospital discharge is often planned around a single problem (usually a physical problem), as opposed to considering the wide range of health and social needs a person may be experiencing. • Providers do not always engage older adults and their caregivers in decisions related to their health and care. • Many older adults and their caregivers report not being involved in decision-making about their health and care. The barriers that are the most cited are: <ul style="list-style-type: none"> ○ time constraints; ○ providers thinking that it is not necessary given the patient's situation; ○ patients not expecting to be engaged or being afraid to upset their providers; and ○ providers lacking the skills to engage their patients in decisions about their own care.(77) • The lack of meaningful engagement can result in unmet needs once home.

	<ul style="list-style-type: none"> • It is difficult for providers and organizations (for example, home and community care) to develop comprehensive and customized packages of care and services based on older adults' complex needs and their ability to pay. <p>The health system is not currently designed to provide integrated care for people with complex health and social needs at home</p> <ul style="list-style-type: none"> • Older adults with multiple chronic conditions often receive care that is fragmented.(78-79) For instance, a patient with diabetes, multiple sclerosis and emphysema may need to seek care from different doctors for each condition. These doctors may be in different settings and may not effectively communicate with each other,(73) which increases the risks of medical errors, poor communication with patients (and across providers), and poor care coordination.(80) • Patients and caregivers often report having short appointments with their primary-care providers, which they deem not sufficient for patients with multiple chronic conditions and complex needs, limiting the provision of optimal care and support for self-management.(81) • There are many silos in the system: silos between those providing healthcare and social care; silos between different sectors (for example, between hospital care, primary care, and home and community care); and even silos within each sector (for example, silos between organizations providing home and community care). <p>Older adults and caregivers are often not provided with adequate information to enable them to engage in their own health and their own care after transitioning to their own home</p> <ul style="list-style-type: none"> • Older adults and caregivers have limited access to their health information, and when they do have access to information it is difficult to understand and use. However, progress in this regard is being made with the growing availability of MyChart and Patient Oriented Discharge Summaries (PODS) used in many hospitals.(82-83) • Older adults and their caregivers often receive conflicting information (particularly those who are managing multiple chronic conditions and receiving care from many different providers in different settings). • Older adults and caregivers are often unaware of the home and community care available to them and how to access these services.
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The pressures being placed on the health- and social-systems to respond to the ongoing COVID-19 pandemic affect hospital-to-home transitions

The ongoing COVID-19 pandemic has put pressures on health and social systems, organizations, providers, patients and caregivers. Several decisions have been made to respond to the pandemic that have affected hospital-to-home transitions for all patients, including those without COVID-19. These include decisions related to public-health measures (e.g., infection prevention and control measures, such as restrictive visitor policies in hospitals), clinical management of COVID-19 and related health issues (e.g., unmanaged chronic conditions, mental health issues, and family violence), health-system arrangements (e.g., when and how to re-start ambulatory clinics, cancer treatments, and elective procedures, and how to prioritize the use of virtual care), and the economic and social responses (e.g., financial protection, food safety and security, housing, recreation and transportation).(84)

While we are only beginning to appreciate the impacts of COVID-19, many of these impacts may continue post-COVID.(85) Examples of impacts of COVID-19 on hospital-to-home transitions are outlined in Table 4.

Table 4. The impact the COVID-19 pandemic may have on hospital-to-home transitions (85)

Impact	Example
Impact on various sectors	<p>Reducing length of hospital stays</p> <ul style="list-style-type: none"> • In some cases, hospitals may have discharged patients without COVID-19 more rapidly to reduce the risk of infection and be ready for a surge in hospital admission. These shorter hospital stays may have also reduced: <ul style="list-style-type: none"> ◦ access to inpatient rehabilitation services; and ◦ the discharge-planning period. • Shorter lengths of stay may mean that the care needs of the person going home may be higher, but the community system may be less able to meet their needs. • Shorter lengths of stay make it more difficult to engage older adults and families in discharge planning. • Due to restrictive visitor policies, it is harder to engage caregivers in discharge planning. This is particularly challenging if there are language barriers or if older adults are not able to fully engage in discharge planning due to their health conditions (e.g., Alzheimer's and other dementias). <p>Reducing access to primary care and other community-based services</p> <ul style="list-style-type: none"> • Public-health measures (e.g., physical distancing, confinement) and system changes (e.g., cancellation or suspension of routine and ongoing care) to respond to the COVID-19 pandemic exacerbated existing issues with timely access to primary care and community-based services, as well as care coordination and integration.
Impact on treatments	<p>Unmanaged or under-managed chronic conditions</p> <ul style="list-style-type: none"> • The pandemic resulted in the cancellation or suspension of routine and ongoing care for many people. <ul style="list-style-type: none"> ◦ Many people did not seek care because they were afraid of contracting COVID-19. ◦ The impact of reduced access may be exacerbated among the most vulnerable populations. <p>Shifting to virtual care</p> <ul style="list-style-type: none"> • COVID-19 prompted a shift from in-person to virtual care to meet patient needs and reduce risk of disease transmission. While virtual care may improve access for some, many challenges remain for older adults, caregivers and providers. These challenges may exacerbate health inequities:(86) <ul style="list-style-type: none"> ◦ lack of reliable internet access; ◦ lack of knowledge and skills to use technology (e.g., challenges connecting may lead to less time to discuss concerns, challenges in scheduling/re-scheduling appointments); ◦ lack of affordability of technology; and ◦ challenges in discussing/assessing conditions virtually. • If older adults are residing in retirement homes, policies in place may restrict in-person visits, thus family caregivers are forced to carry out their caregiving roles and responsibilities from a distance.
Impact on conditions	<p>New and exacerbated mental health issues</p> <ul style="list-style-type: none"> • The pandemic created psychological challenges such as increased social isolation and the onset or worsening of mental health issues, such as depression, dementia, anxiety, substance abuse (for both older adults and caregivers) • Many mental health services have been reduced, cancelled, or modified to online delivery to address physical distancing requirements.
Impact on specific populations	<p>Restricting mobility</p> <ul style="list-style-type: none"> • COVID-19 pandemic restricted mobility in various ways: <ul style="list-style-type: none"> ◦ restricted community mobility which contributed to a loss of social support; and ◦ reduced physical mobility of older adults who were confined to the home, which has an impact on sarcopenia, frailty, ability to enact chronic disease self-management strategies, and rehabilitation post-discharge from hospital. <p>Exacerbating social isolation</p>

	<ul style="list-style-type: none"> • Infection prevention and control measures (e.g., confinement, physical distancing, those discharged to seniors' residences must self-isolate within their room for 14 days) may have exacerbated social isolation of older adults with complex health and social needs. <p>Exacerbating caregiver burden</p> <ul style="list-style-type: none"> • Greater stress, burnout, depression, anxiety • Greater social isolation • Difficulty securing basic goods (for example, grocery shopping, cleaning supplies) • Reduction in health and social service availability that can support caregivers (e.g., respite care is non-existent) <p>Keeping the home as a safe environment being difficult and stressful</p> <ul style="list-style-type: none"> • The use of masks (and other personal protective equipment) <ul style="list-style-type: none"> ◦ There are issues with comfort, reliability and safety • Physical distancing <ul style="list-style-type: none"> ◦ Possible between care providers and caregiver, but difficult between patient and care providers ◦ Inability to engage broader family/friend network outside of home • Cleanliness and disinfecting <ul style="list-style-type: none"> ◦ Concerns about care providers coming into the home to provide service (where have they been, have they been exposed to COVID-19) ◦ Disinfecting everything the care provider touches ◦ Hand washing <p>Exacerbating ageism and intergenerational divisions since the beginning of the pandemic:</p> <ul style="list-style-type: none"> • Often portrayed as vulnerable, frail, helpless and unable to contribute to society (87) • Ageism can have dire consequences, especially during pandemics: <ul style="list-style-type: none"> ◦ undermine social cohesion and cause possible isolation of certain groups ◦ lead people to hide that they are infected with the virus to avoid being discriminated against; and ◦ prevent them from seeking care when in need, or discourage them from adopting healthy behaviours.(87-89)
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Bringing about system changes takes time, resources and commitment from many players, including older adults, caregivers, providers, organizations and the system as a whole

There have been some promising steps taken by the government, healthcare organizations, researchers, professionals and many others to improve hospital-to-home transitions. However, major system changes take time, resources, and commitment from many players (including older adults, caregivers, providers, organizations and the system as a whole).

Below, we briefly describe two initiatives that are currently underway: 1) major health reforms that are reshaping how care is organized and delivered in Ontario; and 2) initiatives by Ontario Health, Quality Business Unit to develop quality standards in hospital-to-home transitions.

While the initiatives described below are promising and have the potential to fundamentally change for the better how patients (including older adults) transition from hospital to home, each is complex and requires several components to go right in order for them to achieve their goals for patients. As such, many Ontarians may not experience improvements for some time.

Major health reforms in Ontario

Improving hospital-to-home transitions is a high priority for the Ontario government. In 2019, the government announced a major health-system reform, which includes two key changes: 1) the creation of Ontario Health Teams in which all healthcare providers will work as one coordinated team; and 2) the creation of Ontario Health, a central organization that will oversee and coordinate all provincial agencies and

specialized provincial programs. The reforms aim to break down silos in the system, provide more integrated care, and improve care transitions.(23; 26-27)

Within a year, healthcare organizations and providers across the province have been asked to:

- consider what this change means for the delivery of health services;
- find and develop partnerships with organizations, providers, communities, patients, families and caregivers both within and external to the health system;
- develop trust and an aligned vision among these new partners (which for some teams is over 60 partners);
- define the population and priority population for which each OHT will be accountable (19 of the 29 approved OHTs have identified older adults with complexities as their year-1 priority population);
- make strategic decisions related to each of the eight [OHT building blocks](#) (transitions being prioritized as one of the OHT building blocks);
- complete an application and site visit with the Ministry of Health; and
- design and adopt a population-health management approach (including, care pathways, in-reach services and out-reach services) for their year-1 priority population.

There are now 29 approved OHTs across the province covering a significant amount of the population, including most urban areas. Teams have thus far undertaken a tremendous amount of work in trying to transform the health system, most of which has been done without dedicated resources (either monetary or personnel). However, they are now in the process of developing and signing a Transfer Payment Accountability Agreement, which will provide much needed resources to OHTs to support the implementation of their plans.

Initiatives led by Ontario Health, Quality Business Unit

Ontario Health, Quality Business Unit, the provincial organization supporting the quality of healthcare, has lead several projects to improve hospital-to-home transitions, including:

- developing quality standards for hospital-to-home transitions;(25)
- developing data and measurement guide to support the adoption of the standards;(90)
- developing a Patient Conversation Guide to support the implementation of the standards with questions patients can ask their care team as they get ready to leave the hospital;(1) and
- spreading a tool (the Patient Oriented Discharge Summary - PODS) co-developed with patients to help patients and caregivers better manage their care after leaving the hospital, which is being implemented in 27 hospitals across Ontario.(82-83)

The ‘quality standards’ developed by Ontario Health, Quality Business Unit focus on hospital-to-home transitions for people of all ages (not just older adults with complex health and social needs).(25) This work was completed in collaboration with healthcare providers, patients, citizens and caregivers across the province. These quality standards are 10 short statements (Table 5). These statements should:

- help patients and caregivers know what to expect from hospital-to-home transitions;
- help providers know what care they should be offering (based on evidence and expert consensus); and
- help organizations evaluate and improve their performance.

Table 5. Quality statements for hospital-to-home transitions proposed by Ontario Health, Quality Business Unit (25)

Statement	Description
1. Information-sharing on admission	“When people are admitted to hospital, the hospital notifies their primary care and home and community care providers soon after admission via real-time electronic notification. The community-based providers then share all relevant information with the admitting team in a timely manner.”
2. Comprehensive assessment	“People receive a comprehensive assessment of their current and evolving health care and social support needs. This assessment is started early upon admission, and updated regularly throughout the hospital stay, to inform the transition plan and optimize the transition process.”
3. Patient, family and caregiver involvement in transition planning	“People transitioning from hospital to home are involved in transition planning and developing a written transition plan. If people consent to include them in their circle of care, family members and caregivers are also involved.”
4. Patient, family and caregiver education, training and support	“People transitioning from hospital to home, and their families and caregivers, have the information and support they need to manage their health after the hospital stay. Before transitioning from hospital to home, they are offered education and training to manage their health care needs at home, including guidance on medications and medical equipment.”
5. Transition plans	“People transitioning from hospital to home are given a written transition plan (which can reside fully within the discharge summary), developed by and agreed upon in partnership with the patient, any involved caregivers, the hospital team, and the home and community care team, before leaving hospital. Transition plans are shared with primary care and home and community care providers within 48 hours of discharge.”
6. Coordinated transitions	“People admitted to hospital have a named health care professional who is responsible for timely transition planning, coordination, and communication. Before people leave hospital, this person ensures an effective transfer of transition plans and information related to people’s care.”
7. Medication review and support	“People transitioning from hospital to home have medication reviews on admission, before returning home, and once they are home. These reviews include information regarding medication reconciliation, adherence, and optimization, as well as how to use their medications and how to access their medications in the community. People’s ability to afford out-of-pocket medication costs are considered, and options are provided for those unable to afford these costs.”
8. Coordinated follow-up medical care	“People transitioning from hospital to home have follow-up medical care with their primary care provider and/or a medical specialist coordinated and booked before leaving hospital. People with no primary care provider are provided with assistance to find one.”
9. Appropriate and timely support for home and community care	“People transitioning from hospital to home are assessed for the type, amount, and appropriate timing of home care and community services they and their caregivers need. These services are arranged before people leave hospital and are in place when they return home.”
10. Out-of-pocket costs and limits of funded services	“People transitioning from hospital to home have their ability to pay for any out-of-pocket health care costs assessed by the health care team, and alternatives for unaffordable costs are considered in transition plans. The health care team explains to people what publicly funded services are available to them and what services they will need to pay for.”

Additional equity-related observations about the problem

An important element that requires further discussion is how the problem may disproportionately affect certain groups. For instance, evidence shows that many groups face significant service gaps in Ontario, including:

- Indigenous groups;
- francophone communities;
- refugees and new Canadians (who may also not be fluent in English);
- lower socio-economic populations;
- lesbian, gay, bisexual, and transgender (LGBTQ);

- homeless;
- marginalized and vulnerable;
- uninsured;
- unattached to primary care; and
- people in supportive care/long-term care.(91)

With respect to improving hospital-to-home transitions in Ontario, many of these groups warrant attention. However, as mentioned earlier, this evidence brief focuses on two groups for illustrative purposes: 1) older adults with multiple chronic conditions and co-occurring mental health conditions; and 2) older adults living in rural, remote and northern areas.

Those with multiple chronic conditions and co-occurring mental health conditions

Individuals' minds and bodies are affected by physiological changes that come with aging and the presence of chronic conditions. Chronic conditions have a reciprocal relationship with mental conditions, whereby those with chronic conditions are more likely to experience mental conditions, and vice versa. People living with mental conditions often develop co-existing chronic conditions as a result of both the illness itself and consequences of treatment. Among older adults with multimorbidity, the most common co-occurring mental health conditions are anxiety, depression, mild cognitive impairment, Alzheimer's and other forms of dementia.

The co-occurrence of mental health and addictions compounds the already complex transitions process in four significant ways.

- Current models of care that are relied on for hospital-to-home transitions place a significant focus on self-management and support from caregivers. However, it is more complex supporting older adults with multiple chronic conditions and co-occurring mental health conditions.
- The co-occurrence of mental health conditions with chronic conditions can have significant impact on the ability to engage older adults and their caregivers in their own health and care, as well as in the planning of hospital-to-home transitions.
- There is relatively little that has been written on older adults with multiple chronic conditions and co-occurring mental health conditions. In fact, these individuals are often excluded from studies about transitions from hospital to home, limiting our understanding of their experiences or how best to provide care.
- Caregivers of older adults with multiple chronic conditions and co-occurring Alzheimer's disease experience significant, complex and distressing transitions (for example, changes to their environment, roles and relationships, physical and mental health, isolation, and taking on new tasks).(66-68)

Those in rural, remote and northern areas

Residents of rural, remote and northern communities often experience poorer health, greater poverty and higher mortality rates than urban populations.(92) When compounded with social forces including economic disparity, rural and remote populations are almost three times as likely as high-income Canadians to have multiple chronic health conditions.

This population is at disproportionate risk for poor transitions from hospital to home, which is exacerbated by a lack of diverse health and social workers across rural, remote, and northern Ontario. Hospital-to-home transitions are particularly complex for them. As described earlier, those living with multiple chronic conditions often require care from many health- and social-care providers working across different settings. However in rural, remote and northern communities, these professionals are often at a significant distance from one another and may not communicate effectively. These gaps and shortage of providers, particularly in remote communities, result in sporadic, inconsistent, and long wait times for patients, especially when receiving home and community care. As a result, patients may be expected to travel significant distances to receive follow-up care, and caregivers need to take on a significant amount of the care provided to the individual. However, many residents, particularly in areas of northeastern Ontario, are geographically isolated

and, weather dependent, it may not be possible to reach individuals. Families are often forced to place their older family members prematurely in long-term care facilities, outside of their communities, as care is not locally available, providing further disruptions following hospital discharge.

Citizens' views about key challenges related to supporting older adults with complex health and social needs during hospital-to-home transitions

One citizen panel – which engaged a diverse group of 12 citizens (in terms of age, gender, ethnocultural background and socio-economic status) – was convened in Hamilton (Ontario) on 15 November 2019. The panel consisted of older adults with complex needs (seven out of eight), and caregivers of older adults with complex needs (three out of four) from across the province. Panellists were provided with a plain-language version of the evidence brief prior to the citizen panel, which served as an input into citizens' deliberations.(22; 93)

During the deliberation about the problem, citizens were asked to share what they perceived to be the main challenges to engaging older adults with complex health and social needs, and their caregivers, to improve hospital-to-home transitions in Ontario. To do so, they were asked to look back over a hospital-to-home transition they (or a loved one) experienced and identify experiences at the hospital and back home that affected the transition (both positive and negative experiences). They were also asked about decisions made by them (or by someone else) that positively or negatively affected the transition. Lastly, they reflected on the health reforms underway in Ontario and how these could affect hospital-to-home transitions.

Panellists identified four important challenges: 1) despite some positive experiences, hospital-to-home transitions have been generally described as stressful and risky; 2) the hospital-to-home transition process is fuelled by assumptions; 3) care needs and decisional needs are hard to identify (and address); and 4) there is skepticism towards large-scale reforms to improve hospital-to-home transitions. These are all summarized in detail in Table 6.

Table 6. Summary of citizens' views about challenges

Challenge	Description
Despite some positive experiences, hospital-to-home transitions have been generally described as stressful and risky	<ul style="list-style-type: none"> Despite some positive experiences, panellists generally had the impression that hospital-to-home transitions were stressful and risky. They generally felt left to their own devices to manage their own care (or the care of their loved one), to coordinate care and to navigate the health and social systems. Panellists identified six key areas that contributed to the stress and risks associated with hospital-to-home transitions: <ul style="list-style-type: none"> not having community-based providers assigned to follow up with them after being discharged from hospital (e.g., the hospital-to-home transition is often dependent on individual providers who are able to go above and beyond what is expected from them; lacking an identified care coordinator at the hospital and back in the community who has the authority to properly arrange all the support needed and to make things happen); not having access to information to manage their health and care (e.g., lack of personalized information support about their current health and care, their illness trajectory and anticipating future care needs, as well as information to help them navigate the health system; professionals should recognize when directing older adults to information isn't enough (due to the older adults' conditions)); not having a comprehensive assessment before being discharged and at home (e.g., generally sent home without a comprehensive assessment, or without being asked specific questions about their other health and social needs; the care team in the hospital tended to focus on the one problem for which they were hospitalized, without a clear understanding of the complex health and social challenges that they were dealing with back home); not being engaged meaningfully in planning hospital-to-home transitions (e.g., rarely meaningfully engaged in conversations to plan hospital-to-home transitions; rarely presented

Challenge	Description
	<p>with actual choices to make; caregivers to an older adult with complex needs revealed difficulties in engaging with (and receiving support from) providers);</p> <ul style="list-style-type: none"> ○ not receiving timely follow-up (e.g., lack of timely follow-up after returning home which was exacerbated by breakdowns in communication and information sharing between patients, caregivers, care coordinators and care providers); and ○ not all sectors have the same capacity to support hospital-to-home transitions (e.g., hospital-to-home transitions may be better managed in some sectors than others, such as surgical care (for example, cardiac surgery, orthopedic surgery), cancer care or palliative care).
The hospital-to-home transition process is fuelled by assumptions	<ul style="list-style-type: none"> • Panellists pointed out that the hospital-to-home transition process is generally fuelled by assumptions made by providers, older adults and caregivers, including: <ul style="list-style-type: none"> ○ assumptions that older adults who are discharged will have support from family or friends back home, when in fact for some their support network is compromised (no siblings, family members, or friends who can take care of them, long-distance caregivers, or having to rely on involuntary caregivers such as neighbours or former spouse); ○ assumptions that older adults will be able to access the right amount of services to meet their individual needs; ○ assumptions that the care plan will be implemented once back home (and that care providers will be doing what they were supposed to do or what they said they would do, and work in collaboration with other providers to meet the needs of older adults); ○ assumptions about responsibility and accountability (and that all older adults will have a designated care coordinator who is actively seeking to implement the care plan); ○ assumptions that older adults will be able to manage their health and care (for example, going back home may provide older adults with a false sense of security and control); ○ assumptions that all older adults are capable of making their own decisions, whereas some may experience cognitive challenges that impair decision-making; ○ assumptions that older adults and their caregivers would understand all the information and instructions provided upon discharge; and ○ assumptions that older adults will be truthful in disclosing the level of support that they have at home (or lack thereof), or have the capacity to do so (for those with cognitive impairment).
Care needs and decisional needs are hard to identify (and address)	<ul style="list-style-type: none"> • Panellists were then asked to identify the decisions made by themselves (or by someone else) that positively or negatively affected their transition from hospital to home. They generally struggled with this question, which reflected that: <ul style="list-style-type: none"> ○ older adults and caregivers may not have a clear picture of their health conditions and their care needs, and thus may be unable to identify the decisions that they should make; ○ hospitalization can be physically and mentally overwhelming, and thus supports are needed to enable patients and caregivers to make decisions about their care (as one panellist said, “I was overwhelmed prior to transition and did not know what to ask”); ○ healthcare providers rarely engage older adults and caregivers in shared decision-making during the planning of hospital-to-home transitions (thus it was unclear for patients and caregivers that they could play a role in making actual decisions); and ○ older adults and caregivers may not feel empowered to make their care needs known to providers (thus, they often don’t know when or how to speak up, to ask questions and clarifications, and to ask for help).
There is skepticism towards large-scale reforms to improve hospital-to-home transitions	<ul style="list-style-type: none"> • Panellists were asked whether or not they were aware of the health reforms underway in Ontario that could affect hospital-to-home transitions (notably the creation of the new Ontario Health Teams). Most panellists were not aware of such reforms and how they would affect the care they currently receive (or may seek). • They also expressed skepticism about the capacity to make large-scale system changes to improve hospital-to-home transitions for older adults with complex health and social needs. This skepticism was fuelled by three factors: <ul style="list-style-type: none"> ○ a general distrust in government reforms; ○ the perceived difficulty of bridging silos across providers, across settings (for example, acute care, primary care, home and community care, long-term care), and across sectors and levels of governments (municipal, provincial/territorial, and federal); and ○ scarce resources (both human and financial) that limit the capacity to scale up and spread innovative models of hospital-to-home transitions.

THREE ELEMENTS OF A POTENTIALLY COMPREHENSIVE APPROACH FOR ADDRESSING THE PROBLEM

Many approaches could be selected as a starting point for deliberations about improving the quality of and experience of hospital-to-home transitions for older adults with complex health and social needs (and their caregivers) in Ontario. To promote discussion about the pros and cons of potentially viable approaches, we have selected three elements of a larger, more comprehensive approach. The three elements were developed and refined through consultation with the Steering Committee and key informants who we interviewed during the development of this evidence brief. The elements are:

- 1) enabling older adults and their caregivers to play a role in their own care during hospital-to-home transitions;
- 2) enabling providers to improve the quality of hospital-to-home transitions; and
- 3) enabling decision-makers to make small yet rapid changes to improve the quality of hospital-to-home transitions.

The elements could be pursued separately or simultaneously, or components could be drawn from each element to create a new (fourth) element. They are presented separately to foster deliberations about their respective components, the relative importance or priority of each, their interconnectedness and potential of or need for sequencing, and their feasibility.

The principal focus in this section is on what is known about these elements based on findings from systematic reviews. We present the findings from systematic reviews along with an appraisal of whether their methodological quality (using the AMSTAR tool) (9) is high (scores of 8 or higher out of a possible 11), medium (scores of 4-7) or low (scores less than 4) (see the appendix for more details about the quality-appraisal process). We also highlight whether they were conducted recently, which we define as the search being conducted within the last five years. In the next section, the focus turns to the barriers to adopting and implementing these elements, and to possible implementation strategies to address the barriers.

Citizens' values and preferences related to the three approach elements

We included in the citizen brief the same three elements of a potentially comprehensive approach to address the problem as are included in this evidence brief. These elements were used as a jumping-off point for the panel deliberations. During the deliberations we identified

Box 4: Mobilizing research evidence about approach elements for addressing the problem

The available research evidence about approach elements for addressing the problem was sought from Health Systems Evidence (www.healthsystemsevidence.org), which is a continuously updated database containing more than 8,500 systematic reviews and more than 2,800 economic evaluations of delivery, financial and governance arrangements within health systems, and from Social Systems Evidence (www.socialsystemsevidence.org), which is a continuously updated database containing more than 3,500 systematic reviews and more than 360 economic evaluations about strengthening 20 government sectors and program areas. The reviews and economic evaluations were identified by searching the databases for reviews addressing features of each element.

The authors' conclusions were extracted from the reviews whenever possible. Some reviews contained no studies despite an exhaustive search (i.e., they were 'empty' reviews), while others concluded that there was substantial uncertainty about the approach element based on the identified studies. Where relevant, caveats were introduced about these authors' conclusions based on assessments of the reviews' quality, the local applicability of the reviews' findings, equity considerations, and relevance to the issue. (See the appendices for a complete description of these assessments.)

Being aware of what is not known can be as important as being aware of what is known. When faced with an empty review, substantial uncertainty, or concerns about quality and local applicability or lack of attention to equity considerations, primary research could be commissioned, or an approach element could be pursued and a monitoring and evaluation plan designed as part of its implementation. When faced with a review that was published many years ago, an updating of the review could be commissioned if time allows.

No additional research evidence was sought beyond what was included in the systematic review. Those interested in pursuing a particular approach element may want to search for a more detailed description of the approach element or for additional research evidence about the approach element.

several values and preferences from citizens in relation to these elements, which we summarize in Table 7.

Table 7. Summary of citizens' values and preferences related to the three elements

Element	Values expressed	Preferences for how to implement the element
Enabling older adults and their caregivers to play a role in their own care during hospital-to-home transitions	<ul style="list-style-type: none"> • engagement • empowerment • holistic • person- and family-centred • adaptability • collaboration • accountability 	<ul style="list-style-type: none"> • older adults with complex needs and their caregivers have a right to be engaged in decisions that will affect their lives (along a spectrum of engagement from no engagement, collaboration, partnership and advocacy) • there is a need to empower older adults and caregivers to take part in decisions related to their health and care (to enable this, care providers should value shared decision-making, and older adults and caregivers should have access to trustworthy information) • there is a need for holistic transition plans that consider the wide range of health and social needs of older adults and caregivers • transition plans (and the information support about the plans) must be adaptable and tailored to the care needs and decisional needs of older adults and their caregivers (as opposed to large, generic phonebook-style guides that may be hard to navigate and use given their specific conditions) • there is a need for greater collaboration with providers and peers to answer their pressing questions in a timely fashion (e.g., a contact person who could have small one-minute discussions) • there is a need to be equipped with concrete tools to hold providers accountable (e.g., a checklist detailing the entire transition process, or proper mechanisms and key contacts if things do not go as planned)
Enabling providers to improve the quality of hospital-to-home transitions	<ul style="list-style-type: none"> • collaboration (between patients, caregivers and providers, as well as between caregivers and their peers) • proactive • realistic • openness • accountability 	<ul style="list-style-type: none"> • there is a need for greater collaboration between patients, caregivers and providers, as well as between caregivers and their peers (as opposed to the pervasive “us versus them” mentality) • providers should be proactive in offering health promotion, prevention and maintenance support, rather than responding reactively when individuals become very unwell (these individuals may be socially isolated and may not proactively seek care) • patients and caregivers must have realistic expectations about what providers can do to improve hospital-to-home transitions (may need to find solutions within the confine of existing, yet scarce resources) • relevant patient information needs to be easily accessible to all providers, including personal-support workers (in order to proactively raise red flags, and support better care coordination and communication across providers) • there is a need for mechanisms to support providers (and provider organizations) to better monitor the hospital-to-home transition process
Enabling decision-makers to make small yet rapid	<ul style="list-style-type: none"> • person- and family-centred • innovation • openness • accountability 	<ul style="list-style-type: none"> • a rapid-learning system should be guided by the needs and priorities of patients and caregivers • innovative models of hospital-to-home transitions could and should be adopted more rapidly across the

changes to improve the quality of hospital-to-home transitions		<p>province (e.g., a central provincial agency should develop a team of trainers who are not bound geographically and could support the adoption of the innovation across the province)</p> <ul style="list-style-type: none"> • there is a need for greater openness in sharing successes and failures (and thus need to nurture a culture of transparency and candor among system leaders) • there is a need for greater accountability in three ways: <ul style="list-style-type: none"> ○ those who are accountable/responsible to bring about change should have the necessary authority to make the change happen; ○ there needs to be clear communication mechanisms in place to inform the public (e.g., public-reporting mechanisms) about the changes and to help them monitor progress ○ there needs to be a set of indicators to monitor progress (e.g., hospital readmission rates, perception of seamless transition, perceived health status, patient/caregiver satisfaction and provider satisfaction).
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Element 1 – Enabling older adults and their caregivers to play a role in their own care during hospital-to-home transitions

This element aims to identify effective strategies to enable older adults with complex health and social needs (and their caregivers) to play a role in their own care during hospital-to-home transitions (and well beyond the post-discharge period). These might include:

- strategies to empower older adults and caregivers to feel confident to take part in planning the hospital-to-home transition with the care team, and also confident to support care at home;
- concrete tools to enable older adults and their caregivers to engage in conversations about hospital-to-home transitions (for example, the [Patient Conversation Guide](#) being developed by Ontario Health, Quality Business Unit) or provide them with clear instructions to know how to manage at home once discharged (for example, the [Patient-Oriented Discharge Summary](#) [PODS] used in 27 hospitals across Ontario); and
- strategies to develop the skills of older adults and their caregivers to manage their own health and care (known as ‘self-management’ or ‘self-care’ skills).

Key findings from the citizen panel

During the discussion about their roles and the supports needed to play these roles, seven values-related themes emerged (Table 7). The first value-related theme emerging from the deliberation was ‘engagement’. Panellists generally agreed that older adults with complex needs and their caregivers have a right to be engaged in decisions that will affect their lives (including treatment decisions and decisions related to hospital-to-home transitions). However, participants talked about a wide range of ‘engagement’: no engagement, collaboration, partnership and advocacy. On one end of the spectrum, some older adults and their caregivers may not be capable or confident to engage in their own health and care. For instance, some may not have the cognitive or physical capacity to understand or use the instructions provided to them, or some caregivers may not be capable of (or comfortable) implementing the new care plan back home. Most panellists indicated that older adults and caregivers should be collaborators or partners within the care team. On the other end of the spectrum, many panellists saw their role as advocates in defending the rights of older adults with complex needs (and their caregivers) to ensure they receive optimal care.

The second value-related theme was empowerment. Panellists generally agreed about the need to empower older adults and caregivers to take part in decisions related to their health and care. To enable this, care providers should value shared decision-making, and older adults and caregivers should have access to trustworthy information allowing them to make the right decisions about their health and care. As one panellist said: “I need to get an advance copy of [a guide describing] what it would look like. I like to ruminate and then have an opportunity to sit down and interrogate the care team. I may not be able to receive the information when I’m sedated.” This shows how empowerment is intimately linked with the first value-related theme: there can’t be meaningful engagement if there is no empowerment.

The third and fourth values-related themes were holistic, and person- and family-centred. Panellists wanted to help develop holistic transition plans that considered the wide range of health and social needs of older adults, as well as those of caregivers. As one panellist said: “As a caregiver, I’m quite happy to get instructions about what to do and how to do it . . . but there needs to be an element that considers myself as a caregiver. [The transition plan must] consider my ability to do what you’re asking me to do.”

The fifth value-related theme was adaptability. The transition plan (and the information support about the transition plan) must be adaptable and tailored to the care needs and decisional needs of older adults and their caregivers. Panellists were reluctant to receive large, generic phonebook-style guides that may be hard to navigate and use given their specific conditions. Panellists emphasized that older adults and caregivers have varying levels of health literacy and different cultural considerations, and thus information supports should be adapted to diverse needs (whether these are websites, mobile applications, or helplines).

The sixth value-related theme was collaboration, particularly with providers and peers. Panellists expected greater collaboration with both groups to answer their pressing questions in a timely fashion (for example, a contact person who could have small one-minute discussions), as opposed to being directed to the emergency department. Some panellists envisioned a much greater role from peers who could help them navigate the program and services available, share their own experiences, and provide support and mentorship to caregivers. One panellist said: “[Peers can] teach you what they have learned along the way [as caregivers], sometimes the hard way.” A second panellist went further: “Peer support may be about other things than care, it’s care for me [as a caregiver].”

The seventh value-related theme was accountability. Several panellists indicated the need to be equipped with concrete tools (for example, a checklist detailing the entire transition process, or proper mechanisms and key contacts if things do not go as planned) to hold providers accountable if things do not go as planned. One panellist explained how she developed her own checklists to monitor the hospital-to-home transition process, along with the home and community care required by her loved one.

Key findings from the synthesized research evidence

We found several reviews relevant to element 1. Research evidence reveals the importance of engaging patients and caregivers in discharge planning,(94) as well as improving the knowledge, attitudes, skills, behaviours and assets to empower caregivers.(64) There is also research evidence supporting the use of discharge tools that are co-designed with patients,(95) which seems consistent with preliminary findings about the Patient-Oriented Discharge Summary currently being implemented in Ontario.(83) Lastly, there are many systematic reviews examining various self-management interventions. However, these reviews generally focus on self-management for single conditions (for example, diabetes or cardiovascular diseases). While reviews of

self-management for single conditions are important, they do not address the complexity involved with self-management for older adults with multiple chronic health conditions. Only one review focused specifically on older adults with multiple chronic conditions and found mixed results about the effectiveness of self-management.(96)

A summary of the key findings from the synthesized research evidence is provided in Table 8. For those who want to know more about the systematic reviews contained in Table 8 (or obtain citations for the reviews), a fuller description of the systematic reviews is provided in Appendix 1.

Table 8: Summary of key findings from systematic reviews relevant to Element 1 – Enabling older adults and their caregivers to play a role in their own care during hospital-to-home transitions

Category of finding	Summary of key findings
Benefits	<p>Strategies to empower caregivers</p> <ul style="list-style-type: none"> • A recent rapid synthesis identified many examples of the types of knowledge, attitudes, skills, behaviours and assets that caregivers need to feel empowered: <ul style="list-style-type: none"> ○ knowledge (e.g., understanding the patient’s condition and medical history, knowing how to manage specific conditions, understanding the process of transition, knowing what community services are available, understanding the health system and roles of the different providers); ○ attitudes (e.g., self-efficacy, self-esteem, positive attitudes towards the patients, resiliency, and affirmation); ○ skills (e.g., skills in providing personal care, note-taking skills, coping skills, advocacy skills, problem-solving skills); ○ behaviours (e.g., encouraging social participation, making house adaptations, making lifestyle adaptations); and ○ assets (e.g., ensuring the home is close to services, and having access to benefits that could lessen the financial burden).(64) • A recent, high-quality review found that discharge-planning interventions with caregiver integration were associated with: <ul style="list-style-type: none"> ○ shorter time to readmission; ○ shorter re-hospitalization; and ○ lower costs of post discharge care.(94) <p>Strategies to provide discharge tools</p> <ul style="list-style-type: none"> • One systematic review examined the effectiveness of discharge tools that are developed for patients.(95) The review found that: <ul style="list-style-type: none"> ○ the use of discharge tools with media and visual aids improved patient understanding of instructions; and ○ involving patients in the design and delivery of discharge tools also improved patient understanding of instructions. • No systematic review examined the Patient-Oriented Discharge Summary currently being implemented in Ontario, but it is currently being evaluated by a randomized controlled trial. Previous evaluations have found that: <ul style="list-style-type: none"> ○ 93% of patients reported understanding their medications upon discharge and 85% reported understanding what to do if concerned; ○ 98% of patients and 86% of providers found the tool useful and would recommend its use; and ○ there was a 4% reduction in 30-day hospital readmission rate during the period that the tool was implemented.(83) <p>Strategies to develop self-management skills</p> <ul style="list-style-type: none"> • We found one systematic review examining the effectiveness of patient-oriented interventions for managing multiple chronic conditions.(96) These included

	<p>educational interventions and support for self-management (for example, supporting self-management with focus on diet and physical activity, or group-based support programs for people with multiple chronic conditions). The review revealed mixed findings, but overall interventions that are not linked to healthcare delivery are less effective.</p> <ul style="list-style-type: none"> • Other reviews found that the following self-management interventions were beneficial (but they focused on self-management for single conditions): <ul style="list-style-type: none"> ○ patient education; ○ family interventions; ○ information and communication technology (for example, home telehealth and telemonitoring); ○ home-based support; and ○ interventions aimed at supporting appropriate medicine use by patients.(29)
Potential harms	<ul style="list-style-type: none"> • None identified
Costs and/or cost-effectiveness in relation to the status quo	<ul style="list-style-type: none"> • None identified
Uncertainty regarding benefits and potential harms (so monitoring and evaluation could be warranted if the option were pursued)	<ul style="list-style-type: none"> • Uncertainty because no systematic reviews were identified <ul style="list-style-type: none"> ○ Not applicable • Uncertainty because no studies were identified despite an exhaustive search as part of a systematic review <ul style="list-style-type: none"> ○ Not applicable – no ‘empty’ reviews were identified • No clear message from studies included in a systematic review <ul style="list-style-type: none"> ○ Not applicable
Key elements of the policy option if it was tried elsewhere	<p>Strategies to empower caregivers and strategies to develop self-management skills</p> <ul style="list-style-type: none"> • A recent, medium-quality review identified several factors for positive hospital-to-home transitions, including: <ul style="list-style-type: none"> ○ assessment and planning; ○ information and education; ○ preparation of the home environment; ○ the involvement of the older adults and caregivers; ○ supporting self-management in the discharge process; and ○ follow-up care processes at home.(60)
Stakeholders’ views and experience	<p>Strategies to empower caregivers</p> <ul style="list-style-type: none"> • An older, low-quality review examining person-centredness in the community care of older people suggests that older people may prefer less overt approaches to directing care (e.g., decisional autonomy over executional (implementation) autonomy).(97) • One review is being planned, which will examine older adults’ experiences of patient involvement in transitional care.(98)

Element 2 – Enabling providers to improve the quality of hospital-to-home transitions

This element focuses on identifying strategies to support individual providers (or providers working as a team) to improve the quality of hospital-to-home transitions. These might include:

- strategies designed to support providers to improve the quality of hospital-to-home transitions (e.g., having a designated transition coordinator);
- strategies to help providers to proactively identify older adults with complex health and social needs in their community using available data and other means (in order to reach out to them before they are hospitalized); and
- strategies to engage older adults and caregivers as advisors to healthcare organizations to improve the quality of hospital-to-home transitions.

Key findings from the citizen panel

There were five values-related themes that emerged during the discussion about element 2 (Table 7). The first value-related theme that emerged was collaboration (between patients, caregivers and providers, as well as between caregivers and their peers). A few panellists indicated that there was a pervasive “us versus them” mentality between providers and patients/families in the health system, which was not conducive to collaborative care. There was a need to address this perception in order to enable providers to improve hospital-to-home transitions.

The second value-related theme was proactivity. Panellists indicated that providers should be proactive in offering health promotion, prevention and maintenance support, rather than responding reactively when individuals become very unwell or when a crisis occurs. Proactive support appeared essential, given the complexity of health and social needs of older adults, but also the concern that these individuals may be socially isolated and may not proactively seek care. As one panellist said: “We have a decent system in dental health. They are sending postcards every six months. They are not waiting for your teeth to fall out.” Panellists recommended a similar approach be adopted across health and social systems.

The third value-related theme was having realistic expectations about what providers can do to improve hospital-to-home transitions. Panellists generally agreed that there are not enough publicly funded services to meet people’s needs, and a shortage of providers may be one factor contributing to this problem. While some called for greater public funding to increase the number of providers, others argued that it was not a realistic solution. One panellist insisted that we needed to find solutions within the confine of existing (yet scarce) resources: “There is a huge problem in this province with a looming deficit. (...) We need to be realistic and not expect that we can throw money and get more providers.” Thus, they called for new models of care that could prioritize this issue and allow providers to engage in conversations with patients and caregivers, provide individual coaching, or engage in quality-improvement efforts.

The fourth value-related theme was openness. Panellists acknowledged that relevant patient information needed to be easily accessible to all providers, including personal-support workers. They indicated that personal-support workers were in a unique situation with regular contact with older adults and caregivers. If they were better informed about the complex health and social needs of older adults, they could proactively raise red flags with home- and community-care providers. Personal-support workers could play a key role as part of the care team to support care coordination and communication across providers.

The fifth value-related theme was accountability. Panellists believed that there should be a mechanism to support providers (and provider organizations) to better monitor the hospital-to-home transition process. As one panellist said: “There should be a way for professionals to follow up with you. Is everything going as planned? Do you need additional help?”

Key findings from the synthesized research evidence

We found several systematic reviews examining strategies designed to support providers to improve the quality of hospital-to-home transitions. Among those, we identified a report by Health Quality Ontario providing an overview of systematic reviews about strategies designed to improve the quality of hospital-to-home transitions.⁽⁹⁹⁾ The report identified a series of strategies that are supported by strong research evidence, and others that appear to be promising. These strategies can be used at different moments during the hospital-to-home transition, such as:

- early in the hospital admission;
- during the hospital stay and transition process;
- close to time of discharge; and
- after discharge.

We found no systematic reviews about strategies to help providers to proactively identify older adults with complex health and social needs.

We found one systematic review examining strategies to engage patients in patient advisory councils or committees to co-design programs and service.⁽¹⁰⁰⁾ The review found limited research evidence, but did find that some of these strategies could be promising. We also found a recent scoping review revealing that a growing number of organizations engage patients in developing best practice reports to improve hospital-to-home transitions.⁽¹⁰¹⁾

A summary of the key findings from the synthesized research evidence is provided in Table 9. For those who want to know more about the systematic reviews contained in Table 9 (or obtain citations for the reviews), a fuller description of the systematic reviews is provided in Appendix 2.

Table 9: Summary of key findings from systematic reviews relevant to Element 2 – Enabling providers to improve the quality of hospital-to-home transitions

Category of finding	Summary of key findings
Benefits	<p>Strategies to engage older adults and caregivers as advisors to healthcare organizations</p> <ul style="list-style-type: none"> • One systematic review examining strategies to engage patients in patient advisory councils or committees to co-design programs and services found a limited body of research evidence. However, some of these strategies appeared promising, such as: <ul style="list-style-type: none"> ○ engaging patients as advisors in the design of public-health interventions to improve clinical outcomes; and ○ engaging patients as advisors to help healthcare-planning efforts and identify priorities.⁽¹⁰⁰⁾ <p>Strategies designed to improve the quality of hospital-to-home transitions</p> <ul style="list-style-type: none"> • Early in the hospital admission <ul style="list-style-type: none"> ○ Three strategies that are effective early in the hospital admission: <ul style="list-style-type: none"> ▪ performing medication reconciliation on admission; ▪ assessing patient risk of readmission; and ▪ assessing health literacy.⁽⁹⁹⁾ ○ Two promising strategies:

	<ul style="list-style-type: none"> ▪ notifying community providers of patient admission to hospital (and start coordinating the care plan); and ▪ using e-notifications.(99) • During the hospital stay and transition process <ul style="list-style-type: none"> ○ Two strategies that are effective during hospital stay and transition process: <ul style="list-style-type: none"> ▪ using ‘teach back’ to build patient and caregiver capacities; and ▪ using visual tools to help patients and caregivers to communicate.(99) • Close to time of discharge <ul style="list-style-type: none"> ○ Two strategies that are effective close to time of discharge: <ul style="list-style-type: none"> ▪ ensuring personal clinician-to-clinician information transfer; and ▪ performing medication reconciliation at discharge. (99) ○ One promising strategy: <ul style="list-style-type: none"> ▪ scheduling primary-care visit before leaving hospital.(99) • After discharge <ul style="list-style-type: none"> ○ Four promising strategies after discharge: <ul style="list-style-type: none"> ▪ identifying one lead to perform medication reconciliation in the community; ▪ ensuring discharge summary available to primary-care providers within 48 hours; ▪ conducting follow-up within 48 hours of transition to home; and ▪ designating a person in the community to support non-clinical needs immediately after hospital discharge.(99)
Potential harms	<ul style="list-style-type: none"> • None identified
Costs and/or cost-effectiveness in relation to the status quo	<ul style="list-style-type: none"> • None identified
Uncertainty regarding benefits and potential harms (so monitoring and evaluation could be warranted if the option were pursued)	<ul style="list-style-type: none"> • Uncertainty because no systematic reviews were identified <ul style="list-style-type: none"> ○ Strategies to help providers to proactively identify older adults with complex health and social needs • Uncertainty because no studies were identified despite an exhaustive search as part of a systematic review <ul style="list-style-type: none"> ○ Not applicable – no ‘empty’ reviews were identified • No clear message from studies included in a systematic review <ul style="list-style-type: none"> ○ Not applicable
Key elements of the policy option if it was tried elsewhere	<ul style="list-style-type: none"> • None identified
Stakeholders’ views and experience	<ul style="list-style-type: none"> • None identified

Element 3 – Enabling decision-makers to make small yet rapid changes to improve the quality of hospital-to-home transitions

Most health systems have not been set up to learn and improve rapidly. Instead, they often go through large-scale reforms over an extended period. Since it is unlikely we will get all changes right from the beginning, such large-scale reforms are not optimal.

This element focuses on an approach called “rapid-learning systems”. Decision-makers would be able to make small yet rapid changes to improve the quality of hospital-to-home transitions for older adults with complex health and social needs. Decision-makers at all levels (from those working in local organizations delivering care to those working in the government) could try new approaches, rapidly evaluate them in ‘real time,’ and quickly adjust the approach when necessary.

Learning and improving rapidly appears particularly important in light of the COVID-19 pandemic, and the necessity for the health and social systems to respond to an exogenous shock, while maintaining optimal care for older adults with complex health and social needs.

Key findings from the citizen panel

While panellists grappled a bit more to define a role for themselves in a rapid-learning system, some panellists indicated that it was an approach that made “common sense.” Four values-related themes emerged during the discussion about element 3 (Table 7).

The first value-related theme that emerged was person- and family-centred. A rapid-learning system should be guided by the needs and priorities of patients and caregivers, and actively engage them. As one panellist said: “Patients should point out what needs to be fixed. And then, [health-system leaders should] ask those most affected to see if it has been fixed.”

The second value-related theme was innovation. Several panellists hoped that innovative models of hospital-to-home transitions could be adopted more rapidly across the province. They favored an incremental approach (“let’s divide things up, roll things up sequentially, and learn along the way”). In order to address potential regional inequities in the adoption of innovative models, they suggested that a central provincial agency should develop a team of trainers who are not bound geographically and could support the adoption of the innovation across the province. And while they supported innovation, they were clear that it didn’t mean a complete overhaul of the current system: “Don’t re-invent the wheel. Don’t fix what is not broken.”

The third value-related theme was openness. To support a rapid-learning system, there was a need for greater openness in sharing successes and failures. They pointed out that the learning process is not strictly about sharing best practices, it is also about sharing failures and learning from those. However, some panellists indicated that there was a “fear of failure” among health-system leaders, which may be exacerbated by increased public and media scrutiny. This fear may nurture a lack of transparency and candor among health-system leaders when initiatives do not achieve their objectives (and thus not allowing us to collectively learn from failures).

The fourth value-related theme was accountability. Panellists discussed the importance of accountability in three ways: 1) those who are accountable/responsible to bring about change should have the necessary authority to make the change happen; 2) there needs to be clear communication mechanisms in place to inform the public (for example, public-reporting mechanisms) about the changes and to help them monitor progress (“The community should be considered as equal partners. Inform us of what’s going on, how we can take part in this process, and how can I let you know if this isn’t working.”); and 3) you need a set of indicators to monitor progress (for example, hospital readmission rates, perception of seamless transition, perceived health status, patient/caregiver satisfaction and provider satisfaction).

Key findings from the synthesized research evidence

We identified two systematic reviews and one series of descriptive case studies that were deemed to be most relevant to adopting a rapid-learning and improvement approach. While they relate broadly to the characteristics of a rapid-learning health system, they do not address its development to support hospital-to-home transitions. In addition, the McMaster Health Forum also recently completed two rapid syntheses and a provincial stakeholder dialogue (including the development of an evidence brief), which we used to inform this element.(102-103) The first rapid synthesis and stakeholder dialogue focused on creating a rapid-learning health system in Ontario,(104) and the other rapid synthesis focused on creating rapid-learning health systems in Canada.(105)

The most recent rapid synthesis (from December 2018) was focused on creating rapid-learning health systems in Canada.(105) While the findings are too detailed to report in full here, three high-level points, directly from the report, are worth noting here:

- the list of assets is remarkably rich for the health system as a whole and for the primary-care sector and elderly population specifically, even in small jurisdictions, but there are a number of notable gaps across a number of jurisdictions, such as data about patient experiences often not being linked and shared in a timely way to inform rapid learning and improvement;
- some other sectors (e.g., home and community care) and populations (e.g., Indigenous peoples), many conditions (e.g., mental health and addictions) and some ‘treatments’ (e.g. surgery) have been or will be the focus of sustained efforts to create rapid-learning health systems in some jurisdictions; and
- some strong connections have been made among assets, although frequently the connections among sets linked to a single characteristic of rapid-learning health systems (not among assets linked to many different characteristics), and rarely were the connections made explicitly to support rapid learning and improvement.

We also identified two recent low-quality systematic reviews related to rapid learning. The first review examined attempts to adopt the rapid-learning health-system paradigm, with an emphasis on implementation and evaluating the impact on current medical practices.(106) The review identified three main themes to adopting a rapid-learning health system:

- clinical data reuse (i.e., building learning health-systems by extracting knowledge from geographically distributed data collected in daily clinical practice);
- patient-reported outcome measures (i.e. using patient-reporting mechanisms for collecting health-related quality indicators); and
- collaborative learning (i.e., using peer specialists for both capturing the indicators of healthcare delivery and encouraging changes through support and pressure).(106)

The second review focused on the ethical issues that can arise in a rapid-learning health system and grouped 67 ethical issues within four phases of rapid learning:

- designing activities: the risk of negative outcomes (e.g., reducing the quality and usability of results) from designing learning activities less rigorously so they are not classified as research, and the risk of inadequate engagement of stakeholders (which can affect the success of the learning activity due to a lack of established trust and support);
- ethical oversight of activities: the conflict between current oversight regulations and a learning health system, which can delay or even prevent learning activities from being conducted due to confusion regarding which learning activities require ethical oversight, and an inconsistent and burdensome oversight process;
- conducting activities: risks of misguided judgments regarding when and how participants should be notified and asked for consent, and the conflict between current data-management practices and regulations and the goals of a learning health system; and
- implementing learning: difficulties with changing practice in a timely manner (e.g., due to conflict with the current research infrastructure or current financial incentives), issue of transparency (e.g., due to

underperforming providers or commercial interests), and unintended negative consequences from implementation (e.g., widening health disparities or increasing the risk of liability).(107)

The same review identified the following strategies to address these issues:

- establishing clear and systematic policies and procedures to determine which learning health-system activities require ethical review, how data sharing and data protection should be handled, and how to inform patients in routine and systematic ways about the learning system;
- training and guidance for ethics committee members to learn how to apply ethical principles in the context of learning health-system activities and for researchers to learn about ethics guidelines; and
- simplified ethical review and consent process to make it easier for learning health-system activities to be conducted, including implementing a dedicated ethical-review process and streamlining the consent process.

The descriptive case studies showcased various rapid-learning health systems, including for a health system as a whole, as well as some implemented in specific organizations (e.g., academic health centres) and sectors (e.g., specialty care), and for specific categories of treatment (e.g., surgery and palliative care) and populations (e.g., children and youth). The case studies showed a number of key factors influencing successful implementation of rapid-learning health systems, including:

- meaningful stakeholder engagement, partnership and co-production being key pillars in the development and implementation of rapid-learning health systems;
- robust data infrastructure being a central component (e.g., data needs to be systematically and consistently captured, readily available, and shared);
- leadership-instilled culture of learning;
- strategic and operational assistance required to support the development of core competencies; and
- a clear set of performance and quality measures required to evaluate the development and implementation of rapid learning (including public reporting on performance and quality).(105)

A summary of the key findings from the synthesized research evidence is provided in Table 10. For those who want to know more about the systematic reviews contained in Table 10 (or obtain citations for the reviews), a fuller description of the systematic reviews is provided in Appendix 3.

Table 10: Summary of key findings from systematic reviews relevant to Element 3 – Enabling decision-makers to make small yet rapid changes to improve the quality of hospital-to-home transitions

Category of finding	Summary of key findings
Benefits	<ul style="list-style-type: none"> • No evaluations of benefits to a rapid-learning approach were explicitly identified in included systematic reviews.
Potential harms	<ul style="list-style-type: none"> • One recent low-quality review identified 67 ethical issues that can arise in a rapid-learning health system within the following four phases: <ul style="list-style-type: none"> ○ risk of negative outcomes as a result of designing activities; ○ ethical oversight of activities can lead to a conflict between current oversight regulations and learning systems; ○ in conducting activities there is the risk of misguided judgments regarding when and how participants should be notified and asked for consent; and ○ implementing learning can create challenges in timeliness, transparency and unintended negative consequences from implementation.(106)
Costs and/or cost-effectiveness in relation to the status quo	<ul style="list-style-type: none"> • None identified
Uncertainty regarding benefits and potential harms (so monitoring and evaluation could be	<ul style="list-style-type: none"> • Uncertainty because no systematic reviews were identified <ul style="list-style-type: none"> ○ Not applicable • Uncertainty because no studies were identified despite an exhaustive search as part of

warranted if the option were pursued)	<ul style="list-style-type: none"> a systematic review <ul style="list-style-type: none"> ○ Not applicable – no ‘empty’ reviews were identified • No clear message from studies included in a systematic review • Not applicable
Key elements of the policy option if it was tried elsewhere	<ul style="list-style-type: none"> • A series of case studies summarized in one of the rapid syntheses documenting the implementation of rapid-learning health systems showed a number of key factors influencing implementation, including: <ul style="list-style-type: none"> ○ meaningful stakeholder engagement, partnership and co-production; ○ robust data infrastructure; ○ leadership-instilled culture of learning; ○ strategic and operation assistance required to support the development of care competencies; and ○ a clear set of performance and quality measures required to evaluate the development and implementation of rapid learning.(105)
Stakeholders’ views and experience	<ul style="list-style-type: none"> • One low-quality systematic review examined attempts to adopt the learning health-system approach, with an emphasis on implementation and evaluating the impact on current medical practices, and found minimal focus on evaluating impacts on healthcare delivery.(107)

Additional equity-related observations about the three approach elements

No systematic reviews were found that related directly to either older adults with multiple chronic conditions and co-occurring mental health conditions or older adults living in rural, remote and northern areas. However, there are equity-related observations that should be applied to each of the three elements. In considering element 1, it will be critical to consider the ways in which co-existing mental health concerns may reduce the ability for older adults to participate in their own health and care during the transition, as well as being aware of the additional burden that may be placed on caregivers given the complex health and social needs of older adults, or their geographical location.

Related to element 2, recent shifts to virtual care in the context of the COVID-19 pandemic occurred, and may improve the connectedness of patients to their providers, particularly in rural, remote and northern areas.

Finally, with respect to element 3, no review examined strategies to engage those with co-existing chronic conditions and co-occurring mental health conditions (or their caregivers), as well as those living in rural, remote and northern areas, to help decision-makers make small yet rapid changes to improve the quality of hospital-to-home transitions. Nevertheless, those carrying the greatest burden of health inequities need to have a stronger voice in the planning and implementation of their care and the systems meant to support it. It will be essential to understand the influencing factors that both facilitate and act as a barrier to their engagement. Thus, strategies are needed to engage these vulnerable populations to ensure that changes are patient-centred and co-developed.

IMPLEMENTATION CONSIDERATIONS

A number of barriers might hinder implementation of the three elements of a potentially comprehensive approach to engaging older adults with complex health and social needs, and their caregivers, to improve hospital-to-home transitions in Ontario (Table 11). While potential barriers exist at the levels of providers, organizations and systems (if not patients/citizens, who are unlikely to be aware of or particularly interested in the specifics of these approach elements), perhaps the biggest barrier lies in providers' behaviours and attitudes not favourable to engaging older adults and caregivers, and the many silos in the system making it difficult to improve hospital-to-home transitions.

Table 11: Potential barriers to implementing the elements

Levels	Element 1 – Enabling older adults and their caregivers to play a role in their own care during hospital-to-home transitions	Element 2 – Enabling providers to improve the quality of hospital-to-home transitions	Element 3 – Enabling decision-makers to make small yet rapid changes to improve the quality of hospital-to-home transitions
Patient/Individual	<ul style="list-style-type: none"> Some older adults and their caregivers may face significant barriers related to the social determinants of health that may affect their ability to play a role in their own care (e.g., limited access to culturally or linguistically adapted support, poverty, family dysfunction). Some older adults and their caregivers may not have the capacity to play an active role in their own care (for example, some caregivers are already overburdened, have limited resources, or are struggling with complex and conflicting advice and instructions). Some individuals may perceive that a focus on self-management means that their providers are abandoning them. 	<ul style="list-style-type: none"> Older adults with complex health and social needs (and their caregivers) may be experiencing compassion fatigue and additional health concerns, and thus are unable to engage in designing programs and services. Some older adults and their caregivers may not want to be engaged advisors, or may not have the capacity to be engaged as advisors (particularly those with complex health and social needs). 	<ul style="list-style-type: none"> Older adults with complex health and social needs (and their caregivers) may be experiencing compassion fatigue and additional health concerns, and thus are unable to engage in designing programs, services and policies.
Care provider	<ul style="list-style-type: none"> Some providers may be reluctant (or lack the skills) to empower older adults and caregivers. 	<ul style="list-style-type: none"> Many providers and care teams may not have the same capacity (e.g., time, resources, organizational support) to deploy all the strategies designed to improve the quality of hospital-to-home transitions. 	<ul style="list-style-type: none"> There may be resistance from providers to changing how things are being done (behavioural, attitudinal and cultural barriers to change).

		<ul style="list-style-type: none"> • Some providers seem unable to work to their full scope of practice due to work overload (and some may not have the authority required to make the change happen). • Current processes and procedures may not allow providers to engage older adults and caregivers in designing programs and services. 	
Organization		<ul style="list-style-type: none"> • Some organizational leaders may be reluctant to adopt (or be part of) hospital-to-home transition models (and tools) if they are perceived as hospital-centric. • A cultural change may be required to ensure that hospitals become 'age-friendly'. 	<ul style="list-style-type: none"> • Making small and rapid changes may be perceived as challenging without larger investments in some areas (e.g., home- and community-care organizations being underfunded).(15)
System		<ul style="list-style-type: none"> • A cultural change may be required to ensure that the health and social systems become 'age-friendly'. 	<ul style="list-style-type: none"> • Making changes in the system (even small and rapid changes) may be perceived as challenging, especially if no large investments are made in some areas (e.g., home- and community-care organizations being underfunded).(15) • Some policymakers may be reluctant (or lack the skills) to meaningfully engage older adults and caregivers in designing programs, services and policies. • The many silos in the system could make it difficult to improve the quality of hospital-to-home transitions (e.g., silos across sectors, financial payment silos, information silos with electronic medical records that are interoperable, all of which contribute to the lack of continuity of care and poor coordination of care). • There are many silos in the health system that are hard to break down (which is illustrated by the lack of interprofessional collaboration), but also across the relevant sectors (silos that

			may be reinforced by competing priorities that may be hard to reconcile).
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On the other hand, a number of potential windows of opportunity could be capitalized upon (Table 12), which also need to be factored into any decision about how to improve hospital-to-home transitions for older adults with complex health and social needs (and their caregivers).

Table 12: Potential windows of opportunity for implementing the elements

Type	Element 1 – Enabling older adults and their caregivers to play a role in their own care during hospital-to-home transitions	Element 2 – Enabling providers to improve the quality of hospital-to-home transitions	Element 3 – Enabling decision-makers to make small yet rapid changes to improve the quality of hospital-to-home transitions
General	<ul style="list-style-type: none"> Several initiatives and events have created a burning platform from which to address how patients, caregivers, providers, researchers, health- and social-system leaders and other stakeholders can improve the quality of hospital-to-home transitions for older adults with complex health and social needs (and their caregivers): <ul style="list-style-type: none"> recent health reforms (including the creation of the Ontario Health Teams); development of quality standards and indicators for hospital-to-home transitions;(25) growing body of research evidence about the experiences of patients and caregivers during hospital-to-home transitions, about priorities for policy changes in line with patient and caregiver priorities, and promising hospital-to-home transition models;(15; 19; 47; 49) and pressures being placed on the acute care sector to respond to the ongoing COVID-19 pandemic. 		
Element-specific	<ul style="list-style-type: none"> Several organizations are trying to empower patients and caregivers. For example: <ul style="list-style-type: none"> the conversation guide about hospital-to-home transitions by Ontario Health, Quality Business Unit;(1) and the McMaster Optimal Aging Portal is a website offering direct and easy access to evidence-based information about how to stay healthy, active and engaged, and how to manage our health conditions, as we grow older. 	<ul style="list-style-type: none"> Several non-governmental organizations have been leading initiatives to improve the quality of hospital-to-home transitions. Such initiatives (along with their expertise) could be leveraged: <ul style="list-style-type: none"> The Aging, Community and Health Research Unit is a collaborative research group working together with older adults with multiple chronic conditions and their family caregivers to co-design, evaluate and scale-up health interventions to promote optimal aging at home.(48-49) Their study (Community Assets Supporting Transitions) is an example of one study that actively engaged patients as partners in the research.(6; 20; 47) The Geriatric Health System Research Group led large mixed-methods studies to examine hip-fracture transitions across the system in Ontario, along with using and sharing of 	<ul style="list-style-type: none"> The health system in Ontario is increasingly putting patients and rapid learning and improvement at its centre. Rapid-Improvement Support and Exchange (RISE) was launched to contribute to the ministry's OHT Central Program of Supports by providing timely and responsive access to Ontario-based 'rapid-learning and improvement' assets. There are many mechanisms to support patient and family engagement in the province: <ul style="list-style-type: none"> Patient and Family Advisory Councils (PFACs) or their equivalent (for example, Ontario Citizens' Council; Patient and Caregiver Advisory Table for Home and Community Care) help to set direction for

		<p>health information during transitions across sectors.(50-59)</p> <ul style="list-style-type: none"> ○ The UHN Open Lab is supporting the implementation of Patient Oriented Discharge Summary (PODS) across the province.(82-83; 108) ○ The Canadian Foundation for Healthcare Improvement is leading a project (Bridge-to-Home) with 16 organizations across seven provinces to improve the quality of care, as well as patient and caregiver experiences of care, during hospital-to-home transitions.(109) ○ The Canadian Foundation for Healthcare Improvement and the Canadian Frailty Network launched the <u>Advancing Frailty Care in the Community Collaborative</u>, which is supporting healthcare teams from across Canada to adapt and implement evidence-informed innovations to improve the proactive identification, assessment and management of frailty in primary care. ○ The Registered Nurses' Association of Ontario will update its practice guideline on transitions in care in the coming year.(14) The guideline will assist nurses to become more comfortable, confident and competent when caring for clients undergoing care transitions. ○ Other initiatives could also inspire ways to improve the quality of care transitions for older adults with complex health and social needs. For example, Behavioural Supports Ontario recently published a checklist that can be used by care teams to support complex transitions from hospital and community into long-term care.(110) 	<p>the system (or for organizations).</p> <ul style="list-style-type: none"> ○ Ontario Health, Quality Business Unit is leading several initiatives on patient engagement in quality improvement (for example, patient-engagement tools and resources, and patient advisors program).
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APPENDICES

The following tables provide detailed information about the systematic reviews identified for each option. Each row in a table corresponds to a particular systematic review and the reviews are organized by element (first column). The focus of the review is described in the second column. Key findings from the review that relate to the option are listed in the third column, while the fourth column records the last year the literature was searched as part of the review.

The fifth column presents a rating of the overall quality of the review. The quality of each review has been assessed using AMSTAR (A MeaSurement Tool to Assess Reviews), which rates overall quality on a scale of 0 to 11, where 11/11 represents a review of the highest quality. It is important to note that the AMSTAR tool was developed to assess reviews focused on clinical interventions, so not all criteria apply to systematic reviews pertaining to delivery, financial, or governance arrangements within health systems. Where the denominator is not 11, an aspect of the tool was considered not relevant by the raters. In comparing ratings, it is therefore important to keep both parts of the score (i.e., the numerator and denominator) in mind. For example, a review that scores 8/8 is generally of comparable quality to a review scoring 11/11; both ratings are considered “high scores.” A high score signals that readers of the review can have a high level of confidence in its findings. A low score, on the other hand, does not mean that the review should be discarded, merely that less confidence can be placed in its findings and that the review needs to be examined closely to identify its limitations. (Lewin S, Oxman AD, Lavis JN, Fretheim A. SUPPORT Tools for evidence-informed health Policymaking (STP): 8. Deciding how much confidence to place in a systematic review. *Health Research Policy and Systems* 2009; 7 (Suppl1):S8.

The last three columns convey information about the utility of the review in terms of local applicability, applicability concerning prioritized groups, and issue applicability. The third-from-last column notes the proportion of studies that were conducted in Canada, while the second-from-last column shows the proportion of studies included in the review that deal explicitly with one of the prioritized groups. The last column indicates the review’s issue applicability in terms of the proportion of studies focused on hospital-to-home transitions.

All of the information provided in the appendix tables was taken into account by the evidence brief’s authors in compiling Tables 8-10 in the main text of the brief.

Appendix 1: Systematic reviews relevant to Element 1 - Enabling older adults and their caregivers to play a role in their own care during hospital-to-home transitions

Sub-element	Focus of systematic review	Key findings	Year of last search	AMSTAR (quality) rating	Proportion of studies that were conducted in Canada	Proportion of studies that deal explicitly with one of the prioritized groups	Proportion of studies that focused on hospital-to-home transitions
Strategies to empower caregivers	Examining the knowledge, attitudes and behaviours that caregivers need in order to build their confidence and engage them in restorative-care processes (64)	This rapid synthesis revealed that caregivers emphasized the need for validation of their role, information about the condition and how to provide care, information about the roles of different health professionals and the health system, and informal information from friends and family who have also been caregivers.	2019	4/9 (AMSTAR rating from McMaster Health Forum)	22/49	49/49	49/49
	Examining caregiver integration during discharge planning for older adults to reduce resource use (94)	<p>This systematic review included 15 studies that examined caregiver integration during discharge planning for older adults as a way to reduce resource use. The meta-analysis evaluated readmission rates, length of and time to post-discharge re-hospitalizations and costs of post-discharge care. Out of the 15 studies included, 11 provided information on readmission rates.</p> <p>The review found that the majority of studies found statistically significant shorter time to readmission, shorter re-hospitalization, and lower costs of post-discharge care with discharge-planning interventions. Nine studies reported statistically significant reductions in readmissions. Specifically, discharge-planning interventions with caregiver integration were associated with a 25% decrease in readmissions at 90 days, and a 24% decrease in readmissions at 180 days. Five of six studies reported significant shorter time to readmission, five of seven studies reported statistically significant shorter stays, and four of seven studies reported significantly lower costs of post-discharge care.</p> <p>Studies found that nurses were the most frequently involved caregiver. Geriatricians, a discharge coordinator, and multidisciplinary teams made up of specialists followed, being involved in two studies each. Interventions used ranged from follow-up telephone calls to home visits.</p> <p>Overall, the review found that the integration of caregivers into the discharge-planning process for older adults was able to reduce the risk of hospital readmission.</p>	2016	9/11 (AMSTAR rating from McMaster Health Forum)	0/15	15/15	11/15

Examining person-centredness in the community care of older people (97)	<p>This systematic review included 40 studies that evaluated the concept of ‘person-centredness’, a term signifying policies and practices that attend to the uniqueness of each individual user. The review reports on a new literature-based concept synthesis that identifies 12 common attributes within the broad themes of ‘understanding the person’, ‘engagement in decision-making’ and ‘promoting the care relationship’. The review argues that these common attributes may be delivered in varying degrees and contexts, dependent on the needs of the population. Older adults may require a different delivery method than that for younger people. A ‘one-size-fits-all’ approach is discouraged.</p> <p>Five interpretations of “person-centredness” were found depending on the context (general medical, nursing, dementia, social care, rehabilitation). These interpretations share common roots such as the term’s widely acknowledged psychoanalytical origins. General practitioners are encouraged to pay attention to the ‘whole person’. Person-centredness in dementia draws upon social constructionist perspectives of aging. For older people receiving support for long-term conditions in their own home, many will make substantial use of general medical services, nursing care and rehabilitation. Thus, there is a need to identify and describe the key service attributes that are common to each interpretation.</p> <p>At the macro level, person-centredness is reflected in engaging the public in establishing priorities and systems. At the micro-level, person-centredness is evidenced in direct care delivery. The review found consensus in promoting greater service-user involvement in care decision-making, but variation in how to achieve this in practice. Some interpretations suggested achieving autonomy at the system level while others focused on care planning. The review mentions prior research which suggest that older people may prefer less overt approaches to directing care (e.g., decisional autonomy over executional (implementation) autonomy).</p> <p>Successful care relationships are dependent on practitioners demonstrating active listening and establishing continuity and coordination in care relationships. However, care relationships can be disrupted by discontinuities, such as turnover of staff or failure to coordinate activities between different agencies.</p>	2014	3/9 (AMSTAR rating from McMaster Health Forum)	7/40	Not reported in detail	Not reported in detail
Examining older persons’ experiences of adapting to daily life at home after hospital discharge (60)	<p>This review of 13 studies evaluated the experiences of older people at adapting to daily life at home after hospital discharge. The meta-summary categorized findings into four main themes: 1) experiencing an insecure and unsafe transition; 2) settling into a</p>	2017	7/10 (AMSTAR rating from	1/10	13/13	13/13

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		<p>new situation at home; 3) what would I do without my informal caregiver?; and 4) experience of a paternalistic medical model.</p> <p>Firstly, many older people experienced the transition to home to be unsafe, and in some instances, dangerous due to a lack of information about their diagnosis, difficulties in understanding their medication or medical reconciliation, and experiences of a rushed or poorly planned discharge. Secondly, while numerous studies reported that participants were keen to return to the security of their home, they often experienced difficulties managing cooking, dressing, bathing and other daily activities. Many returned to homes that were not prepared or appropriate for their new health situation. Environmental challenges were also presented (e.g. lack of specialized equipment). Thirdly, older people reported dependence on additional assistance, from either formal or informal caregiver services. Caregiver support such as medication and care management, cooking, cleaning, dressing, shopping, transportation, and personal hygiene were identified as important. Many expressed worry that their illness would strain their personal relationships. Lastly, older people often experience a paternalistic medical model. They were reluctant to critically question staff, expressing complete trust in the system, doing what they are told and relying on and accepting the decisions and assessments of the healthcare professionals.</p> <p>Results indicate the importance of several components to the positive transition from hospital to home, including assessment and planning, information and education, preparation of the home environment, the involvement of the older person and caregivers supporting self-management in the discharge and follow-up care processes at home. One important factor that affects the transition is the communication between older persons, hospital providers and home-care providers. Better communication is needed to improve the coordination of care and facilitate recovery at home. Changes to the organizational structure may help to improve continuity of care in transitional care situations.</p>		McMaster Health Forum)			
	Examining older adults' experiences of patient involvement in transitional care (98)	Systematic review in progress	Not available yet	Not available yet	Not available yet	Not available yet	Not available yet
Strategies to provide discharge tools	Examining studies that engaged patients in the design or delivery of hospital discharge instruction tools (95)	The review revealed that improving patient engagement in hospital discharge through the use of media, visual aids, or by involving patients when creating or delivering a discharge tool improved comprehension. However, more research is needed to	2014	6/10 (AMSTAR rating from	3/30	Not reported in detail	30/30

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		clarify the effect on patient experience, adherence, and healthcare utilization after discharge.		McMaster Health Forum)			
Strategies to develop self-management skills	Examining the evidence regarding three types of options to support those with multiple chronic condition (29)	People who have multiple chronic conditions have complex needs, but they often receive care that is fragmented and ineffective. This citizen brief examines the evidence regarding three types of options to support those with multiple chronic conditions, including changing the way care is organized and delivered for people with multiple chronic health conditions, supporting them to engage in shared decision-making with their healthcare providers, and supporting them to better manage their own care.	2014	Not available for this type of document	Not reported in detail	Not reported in detail	Not reported in detail
	Examining the effectiveness of person- and family-centred care-transition interventions on the quality of care, and the experiences of patients (111)	Systematic review in progress	Not available yet	Not available yet	Not available yet	Not available yet	Not available yet

Appendix 2: Systematic reviews relevant to Element 2 – Enabling providers to improve the quality of hospital-to-home transitions

Sub-element	Focus of systematic review	Key findings	Year of last search	AMSTAR (quality) rating	Proportion of studies that were conducted in Canada	Proportion of studies that deal explicitly with one of the prioritized groups	Proportion of studies that focused on hospital-to-home transitions
Strategies designed to improve the quality of hospital-to-home transitions	Examining what is known about evidence-informed best practices that are designed to improve transitions between hospital and home (99)	This overview identified several best practices that could be implemented at three moments in the hospital-to-home transition process: 1) early in the hospital admission (perform medication reconciliation on admission, assess patient risk of readmission, and assess health literacy); 2) throughout the hospital stay and transition process (use teach back when building caregiver and patient capacity and enhance patient and caregiver communications with the use of visual tools); and 3) close to the time of discharge (ensure personal clinician to clinician transfer and perform medication reconciliation at discharge)	2016	Not for this type of document	Not reported in detail	Not reported in detail	Not reported in detail
	Examining discharge planning from hospital to home (10)	<p>This review of 30 trials assessed the effectiveness of planning for the discharge of patients from hospital. Discharge planning was defined as the development of an individualized discharge plan for a patient prior to them leaving the hospital for home or residential care.</p> <p>Twenty-one trials recruited older participants with a medical condition, five recruited participants with a mix of medical and surgical conditions, one recruited participants from a psychiatric hospital, one from both a psychiatric hospital and from a general hospital, and two trials recruited participants admitted to hospital following a fall. The trials evaluated broad discharge-planning interventions, including assessment, planning, implementation and monitoring phases. The intervention was implemented at varying times, from admission to three days prior to discharge. In all but two trials, a named healthcare professional was in charge of coordinating the discharge plan.</p> <p>The review found that there was a reduction in hospital length of stay and readmissions to hospital for participants who were admitted to the hospital with a medical diagnosis and who were allocated to discharge planning. There was uncertainty whether discharge planning was effective for patients admitted to the hospital following a fall. There was little to no difference between groups for mortality for older people with a medical condition. There was little evidence regarding mortality for patients admitted for surgery or</p>	2012	9/11 (AMSTAR rating from www.rxforgchange.ca)	3/30	20/30	30/30

		<p>who had a mix of medical and surgical conditions. However, discharge planning was found to have increased satisfaction for both patients and healthcare professionals.</p> <p>Overall, the use of a discharge plan tailored to the patient's need may result in a small reduction in hospital length of stay and reduce the risk of hospital readmission at three months follow-up for older people with a medical condition. While there is little evidence that discharge planning may reduce costs to the healthcare service, it can lead to increased satisfaction.</p>					
Examining quality care outcomes following transitional-care interventions for older people from hospital to home (12)	<p>This review of 12 studies evaluated the quality care outcomes of older people following transitional-care interventions from hospital to home. Twelve studies included outcome measures of re-hospitalization and length of stay with a quality focus on effectiveness, efficiency and safety/risk. Six of the 12 studies assessed patient satisfaction.</p> <p>The included studies assessed several elements considered essential to transitional care interventions, including discharge assessment and care planning, communication between providers, preparation of the person and carer for the care transition, reconciliation of medications at transition, community-based follow-up, and patient education about self-management. Transitional care was mainly implemented by advanced-practice nurses, followed by general practitioners and primary-care nurses.</p> <p>The review found that six studies reported transitional-care interventions to be effective in reducing re-hospitalizations. Three studies found no difference between hospitalization rates between treatment and control groups at six months follow-up. The review also found that people in the intervention groups were more likely to be referred to community-based services. Two studies assessing the effectiveness of general practitioner and primary-care nurse models found no significant improvements in outcomes. In three studies, costs were reduced for the intervention group. Patient satisfaction was found to be high in three studies. No change in caregiver burden was evident.</p> <p>There are gaps in the evidence base regarding the quality of transitional-care interventions for older people, and there is a need for improved evidence and understanding.</p>	2013	6/10 (AMSTAR rating from McMaster Health Forum)		12/12	12/12	
Examining the effectiveness of discharge interventions from hospital to home on hospital readmissions (112)	<p>This review of 51 studies examined which discharge interventions from hospital to home were able to reduce unplanned hospital readmissions within three months. Studies included participants 18 years or older.</p> <p>The included studies had varying types of intervention, including discharge-transfer intervention, use of a checklist, telephone follow-up, community-health worker intervention and education. The overall relative risk for hospital readmission was 0.77, relative risk for return to the emergency department was 0.75 and for mortality 0.70. There was improvement in patient satisfaction</p>	2014	6/11 (AMSTAR rating from McMaster Health Forum)	4/51	17/51	51/51	

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		<p>for the intervention group in five of six studies. The review found that interventions which started during hospital stay and continued after discharge were more effective in reducing hospital readmission than those started after discharge. Interestingly, multi-component interventions were not more effective than single-component interventions. Interventions that focused on patient empowerment were the most effective.</p> <p>Overall, interventions aimed at improving the care transition from hospital to home can be effective at reducing hospital readmission, especially if continued into post-discharge.</p>					
Examining the impact of transitional-care services for chronically ill older patients (113)	<p>This review of 92 studies examined the impact of transitional-care services for chronically ill older patients, determining its effectiveness in the primary-care setting.</p> <p>The review found that compared to usual care, significantly better outcomes were observed for the intervention group. Specifically, there was a lower mortality rate at post-discharge, a lower rate of emergency-department visits at three months, and a lower rate of readmission at all checkpoints. No significant differences were observed in quality of life.</p> <p>These positive post-discharge outcomes are believed to be linked to better continuity of care. Communication between different healthcare professionals was identified to be an important component in many of the interventions. Improved self-management skills and knowledge of their diseases were also important elements for older patients. Involvement of a pharmacist was helpful in improving treatment compliance and providing more precise individual medication adjustment. Additionally, the use of the same facilitator from the beginning to the end of the intervention was found to be especially valuable by older persons as evident by increased adherence and disease control.</p> <p>Overall, transitional-care services can improve the transition for older patients and should be implemented.</p>	2015	8/11 (AMSTAR rating from McMaster Health Forum)	5/92	92/92	92/92	
Examining the effect of continuity of care on the quality of life in older adults with chronic diseases (114)	<p>This review of seven studies examined the effect of continuity of care on the quality of life in older adults with chronic diseases. Continuity of care is defined as coherent care with seamless transitions through consistent communication and coordination over time between settings and providers.</p> <p>The continuity-of-care interventions assessed by the review included medical consultations, rehabilitation programs, home visits, telephone interviews and tracking, and a detailed treatment summary. Nurse-led interventions were found in three studies. Positive findings were found in regard to physical functioning, general health, social functioning, vitality, and in minimizing role limitations due to physical problems. No significant impact was determined</p>	2014	6/10 (AMSTAR rating from McMaster Health Forum)	2/7	7/7	7/7	

		<p>for the dimensions of bodily pain, mental health and role limitation due to emotional problems.</p> <p>Overall, the review found that continuity-of-care interventions can significantly improve physical function, physical role function, general health, social function and vitality of quality of life for elderly people with chronic disease.</p>					
	Examining navigation roles that support chronically ill older adults through healthcare transitions (115)	<p>This review of 15 studies evaluated navigation roles that support chronically ill older adults through healthcare transitions by investigating the potential of existing navigator models relevant to chronic-disease management for older adults.</p> <p>The role of navigator for the chronically ill older person is a relatively new one as all papers included were published after 1999. The majority of studies described registered nurses, often with advanced practice expertise, as healthcare professionals who had the necessary qualifications for the navigator role. Of all the models describing transition of care, discharge planning was included in all except one. Other navigation models offered services such as care planning, coordination of care, phone support, home visits, liaison with medical and community services, and patient and caregiver education. Navigators were all required to advocate for the patient and broker access to appropriate care during the transition.</p> <p>There was variation in the study outcome measures which was categorized into three general measures: economic (e.g., hospital costs), psychosocial (satisfaction with care), and functional (e.g., quality of life). The review found no significant difference on self-reported quality of life and satisfaction. Studies did find increases in an average savings of hospital costs, but it was unclear whether the increase factored in costs such as program development, execution and administration. Additionally, patients in the intervention group of transitional models (e.g., the Guided Care Nurse model) were more likely to rate their satisfaction as 'high'. However, there was also mixed support for the effectiveness of navigation roles. Two studies revealed little to no effect of the position, while one study resulted in higher use of emergency health services.</p> <p>Overall, the review found that integrated and coordinated care guided by a navigator which uses a variety of interventions (e.g., care plans and treatment plans) may be beneficial for the transition of care. There may be economic value to patients, but the impact on system costs is unclear. Research on impact of the role of navigators has not yet been documented or evaluated extensively.</p>	2011	5/10 (AMSTAR rating from McMaster Health Forum)	2/15	15/15	11/15
	Examining whether transitional care prevents older adults	<p>This review of nine studies assessed whether transitional care is effective in preventing older adults from re-hospitalization in the United States. Study outcomes examined include re-hospitalization rates, time to first re-</p>	2011	3/10 (AMSTAR rating from	0/9	9/9	9/9

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	from re-hospitalization (116)	<p>hospitalization, total number of hospital days, healthcare costs, patient health status, and patient satisfaction.</p> <p>Seven of nine studies found positive effects of transitional care in preventing re-hospitalization in older adults, but the effects varied at different follow-up periods. Three studies reported only short-term positive effects of transitional care, while two studies reported findings that long-term (e.g., one year) positive effects could be achieved. These differences may be due to the fact that each group of studies was conducted by similar researchers and shared similar study settings. The studies which found positive long-term effects had an additional intervention of home visits as a follow-up strategy.</p> <p>Three of four studies found lower healthcare costs associated with patients receiving transitional care. All three studies found a reduction in re-hospitalization costs. Three of five studies reported that transitional care delayed first re-hospitalization following discharge. Two of four studies reported a decrease in total hospital days. It was also identified that well-developed service systems and well-trained service providers could be an important element to providing effective transitional care.</p> <p>Overall, the review showed that transitional care generally prevents re-hospitalization among older people.</p>		McMaster Health Forum)			
	Assessing the impact that transitional-care programs have on the use of health services in community-dwelling older adults (11)	<p>This review examined 23 studies in order to assess the impact transitional care programs may have on the use of health services in community-dwelling older adults. Of the included studies, 19 were randomized controlled trials, while the remaining four consisted of case control studies.</p> <p>With the available evidence in the selected studies, the primary outcomes assessed in this review were categorized into the following: 1) admission and readmissions into hospitals; 2) emergency-department visits; 3) the use of primary-care services; 4) admittance into nursing homes; and 5) home-health-care usage.</p> <p>Of the outcomes explored in the review, the effect of transitional-care programs on hospital usage was the most frequently analyzed (n=22). This was followed by 14 studies reporting on emergency-department visits, eight studies on primary care usage, five studies on nursing homes, and four studies on home healthcare.</p> <p>Upon reviewing the existing literature, the findings of the review report four key takeaways: 1) transitional-care interventions can decrease hospital readmission rates for older adults; 2) implementation of transitional-care programs may increase the use of primary-care services; 3) transitional care can decrease the use of home-healthcare services; and 4) in decreasing hospital use, short-term interventions (of one month or less) have the ability to be equally as effective as longer duration interventions. The latter takeaway is noteworthy as long-term interventions can accumulate higher costs over time</p>	2016	8/10 (AMSTAR rating from McMaster Health Forum)	2/23	23/23	23/23

		and minimize healthcare savings. In addition, the reported findings of care interventions on nursing-home usage was limited and as such, no significant impact could be observed.					
Evaluating transitional-care interventions to determine their potential in improving clinical outcomes for older adults transitioning from skilled nursing facilities to their home (117)		<p>The aim of this review was to examine whether transitional-care interventions can improve clinical outcomes for patients. Specifically, interventions that have an impact on patient mortality, readmission, and quality of life for older adults transitioning from skilled nursing facilities to their home.</p> <p>In the six included studies, several pre- and post-discharge intervention services were noted. Pre-discharge services included patient education, discharge planning and appointments. Post-discharge services included medication reconciliation, home visits and continual contact with health professionals.</p> <p>The review identified encouraging evidence to suggest that transitional care has the capacity to improve clinical outcomes for older adults. In the targeted studies, the implementation of transitional-care interventions enhanced patient outcomes by improving hospital readmission rates and mortality upon discharge. However, there was limited evidence to suggest that transitional care is directly able to improve physical function of patients.</p> <p>Overall, while the authors noted several key findings, they acknowledge that significant heterogeneity was present in the interventions, resources, and outcomes needed/measured amongst the included studies.</p>	2015	8/10 (AMSTAR rating from McMaster Health Forum)	0/6	6/6	6/6
Evaluating the effectiveness of nursing discharge-planning interventions on clinical outcomes for older adults (118)		<p>This review examined 13 studies to consolidate evidence on the effectiveness of nursing discharge-planning interventions and assess the impact of the intervention's individual components. Of the included studies, 10 were randomized controlled trials, two were pilot studies, and one had a pre-post study design.</p> <p>The review included studies with the following outcome measures: readmission; hospital admittance duration; functional ability/limitations; symptom management; adverse outcomes; challenges of coping with disease; unmet needs after hospital discharge health-related quality of life; satisfaction with care during the discharge planning process; and hospital utilization.</p> <p>The findings of this review suggest that discharge planning for elderly patients in the hospital does not reduce readmission rate or improve quality of life, but rather increases the length of stay. This may be explained by the lack of robust data on the effectiveness of these outcome measures.</p> <p>The authors recommend the need for continued research on nursing discharge-planning interventions. Larger well-designed randomized controlled trials must be conducted in the elderly population to clarify the intervention duration and impact of intervention on hospital readmission rates.</p>	2015	9/11 (AMSTAR rating from McMaster Health Forum)	1/13	13/13	13/13

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Evaluating if patients recruited in transitional-care studies pose the greatest risk for hospital readmission upon discharge (119)	<p>This systematic review analyzed 17 articles with the aim of investigating whether patients in randomized controlled trials of hospital-to-home intervention studies were representative of those posing the highest risk of readmission upon discharge from the hospital.</p> <p>The factors deemed relevant for assessment in this review were cognitive impairment, depression, polypharmacy, comorbidity, duration of hospital admittance, late-stage non-malignant diseases, and availability of peer support. Of the selected studies, nine articles targeted patients who have minimal social support, three focused on patients with two or more comorbid conditions, and four articles included patients with three or more risk factors for hospital readmission.</p> <p>As a noticeable difference within the participant populations was observed, this prompted several concerns regarding the validity of transitional-care interventions for the authors. Specifically, there was concern regarding the generalizability and ability of care interventions to enhance clinical outcomes for patients at highest risk of re-hospitalization. The authors of the review suggest that the results from existing studies cannot be generalized and thus require further hospital-to-home studies to be conducted using high-risk populations.</p>	2011	4/9 (AMSTAR rating from McMaster Health Forum)	2/17	9/17	17/17
Evaluating the impacts of interventions with the intended outcome of reducing emergency-department by adult frequent users (120)	<p>People that frequently access emergency-department services are at-risk patients who often experience a multitude of chronic disease, comorbidities, and social disparities (like low socio-economic status or older age) that affect their health and well-being. This review included 31 studies that identified the effectiveness of interventions – by examining number of visits and other patient outcomes – that aimed to reduce frequent users' emergency-department visits.</p> <p>Interventions included multidisciplinary case management, individualized care plans, strategies to divert users to other care settings, and social work home visits.</p> <p>Of the 31 studies, 22 showed reduced emergency-department visits after the intervention, though the strength of the relationship was not always statistically significant. Post-intervention, the secondary outcomes had a variety of results: hospital admissions generally decreased, outpatient visits generally increased, mortality rates provided mixed results, housing stability uniformly increased after case management interventions, and costs generally decreased. The study characterizes these secondary outcomes as inconclusive, due to inconsistent results and a lack of adequate information.</p> <p>In conclusion, the review states that interventions for frequent emergency-department users are likely to reduce visits and improve social outcomes (i.e., housing stability). Limitations to this study included differences in the definition of "frequent user" amongst studies, heterogeneity between studies,</p>	2014	8/10 (AMSTAR rating from McMaster Health Forum)	2/31	6/31	0/31

		and generally low/moderate study quality. The authors suggest that there is a need for standardization of definitions in this field and that further high-quality research must be conducted.					
Determining care intervention strategies to assist with patient safety for older adults transitioning from the hospital to home (121)	<p>This review examined 37 studies with the primary aim of determining intervention strategies that can assist with increasing patient safety for older adults transitioning from hospital to home.</p> <p>Transitional-care interventions commonly associated with high reported benefit for older adults included: education and training from health professionals; electronic tools; a transfer nurse; discharge protocol, planning, and support; and patient awareness.</p> <p>The authors indicate the following key features for successful implementation of transitional-care interventions: 1) incorporation in the early stages and continuing beyond the discharge period; 2) integration of a healthcare provider and family caregiver; 3) intervention forms that focus on patient engagement and education; 4) pharmacy-related interventions; and 5) transitional-care programs with multifaceted interventions.</p> <p>The findings of the review suggest that older adults transitioning from the hospital to home are able to significantly benefit from targeted care interventions. The successful implementation of these interventions has been linked with decreased re-hospitalization rates and reduced healthcare usage and cost, along with increased satisfaction for both the patient and their family.</p> <p>Though the authors assert several interventions capable of improving patient safety, they recognize the lack of a thorough methodological quality assessment of the targeted studies.</p>	2010	2/10 (AMSTAR rating from McMaster Health Forum)	0/35	35/35	35/35	
Examining interventions aimed to improve hospital admission and discharge management (122)	<p>This review examined 39 studies on interventions that aimed to improve hospital admission and discharge management. In examining the 39 studies, none of the interventions focused on admission management; instead, all studies looked at discharge-management interventions which were implemented once the patient is already in hospital.</p> <p>The authors concluded that the most effective interventions were either discharge-management interventions aimed at elderly patients or high-intensity interventions. The authors suggest that further research around hospital admission management be conducted.</p>	2018	Not available for this type of document	8/39	Not reported in detail	39/39	
Identifying the cost-effectiveness of hospital-to-community transitional care	<p>The five studies that met inclusion criteria for this review examined the cost-effectiveness of hospital-to-community transitional care when delivered by nurse practitioners. Four of the included studies examined complementary nurse practitioners while one study examined an alternative-provider nurse practitioner. The risk of bias was high for three of the studies and low for two of them, and all five studies were identified as having weak economic analyses.</p>	2012	9/11 (AMSTAR rating from McMaster Health Forum)	1/5	Not reported in detail	5/5	

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executed by nurse practitioners (123)	<p>The one study that focused on an alternative-provider nurse practitioner found that the nurse practitioner had comparable patient outcomes and resource usage to physicians; however, this finding was of low quality. Within the other four studies that focused on complementary nurse practitioners, patient outcomes were also similar when compared to control groups (except for when looking at the two specific patient outcomes that favoured nurse-practitioner care, which were anxiety in rehabilitation patients and patient satisfaction after abdominal hysterectomy).</p> <p>When examining levels of re-hospitalization, the results of meta-analysis were inconclusive. That being said, a low-quality study suggested that complementary transitional care provided by nurse practitioners were found to decrease levels of re-hospitalization within 90 and 180 days amongst patients with complex care needs. Further, complementary provider nurse practitioners were found to significantly decrease patient-to-staff consultation calls both in measures of duration and number of calls.</p> <p>In conclusion, the authors found that the evidence in regards to the cost-effectiveness of hospital-to-community transitional care delivered by nurse practitioners is inconclusive, and further research with higher quality, stronger economic analyses, and larger sample sizes must be done.</p>					
Determining the clinical effectiveness and cost-effectiveness of hospital-to-home transitional care delivered by clinical nurse specialists (124)	<p>The authors identified 13 studies as meeting inclusion criteria for the review on clinical nurse specialists providing hospital-to-home transitional care. The risk of bias within the studies was varied, with three studies having low risk of bias, eight having moderate risk of bias, and two having high risk of bias. All 13 studies had weak economic analyses.</p> <p>Clinical nurse specialists were shown to decrease patient mortality after cancer surgery. Furthermore, with regard to patients with heart failure, clinical nurse specialists improved outcomes related to mortality, re-hospitalization, patient satisfaction, treatment adherence, and costs. In addition, clinical nurse-specialist care improved outcomes for elderly patients and their caregivers, improving caregiver depression, reducing re-hospitalization rates and decreasing length of stay, and decreasing costs. Finally, for women undergoing high-risk pregnancies and infants with very low birthweights, clinical nurse-specialist care improved infant immunization rates, increased maternal satisfaction, and reduced costs and lengths of hospitalization.</p> <p>To conclude, the authors suggest that clinical nurse-specialist transitional care potentially improves outcomes with regards to patient health, re-hospitalization, hospital length of stay, and cost; however, since these conclusions are low evidence, further research is required.</p>	2013	9/11 (AMSTAR rating from McMaster Health Forum)	Not reported in detail	Not reported in detail	13/13
Evaluating transitional-care	<p>This review examined 23 studies that evaluated transition-of-care models meant to reduce rates of re-hospitalization amongst patients with heart failure.</p>	2015	4/9 (AMSTAR	0/23	n/a	n/a

	strategies that aim to decrease rates of re-hospitalization for patients with heart failure (125)	Ultimately, eight common themes regarding transitional care were identified within the literature. These themes outlined the ways in which transition-of-care practices can improve long-term patient outcomes. Importantly, the authors note that theme-based transitional care can include important strategies like disseminating educational knowledge and practical skills, promoting self-care engagement, and encouraging active communication with healthcare providers.		rating from McMaster Health Forum)			
	Examining the effects of transitional-care models on patients with stroke (126)	<p>The authors of this review aimed to understand the way in which transitional-care models affected patients with stroke. Transitional-care models generally aim to improve patient and hospital readmission outcomes, and broadly include practices like medication management, transition planning, patient and family engagement/education, information transfer, follow-up care, healthcare-provider engagement, and shared accountability amongst organizations. Thirteen papers met inclusion criteria and only six of the studies demonstrated that transitional-care models significantly improved outcomes. Transitional care models were ultimately not shown to significantly reduce emergency room visits or hospital readmission rates.</p> <p>In conclusion, though a portion of the evidence suggested that transitional-care interventions are effective in patients with strokes, a standardization of evidence along with more rigorous research is needed to come to a clearer conclusion.</p>	2013	3/9 (AMSTAR rating from McMaster Health Forum)	2/13	n/a	13/13
	Determining the effectiveness of transitional-care interventions on reducing readmissions for patients with heart failure (127)	<p>This review aimed to evaluate the benefits and drawbacks of interventions implemented to reduce hospital readmission rates and mortality rates for patients with heart failure. Within their examinations of 47 studies, the authors found that interventions had a variety of effects.</p> <p>When examining 30-day readmission rates, one high-intensity home-visiting program had the effect of successfully reducing all-cause readmission rates and other outcomes; notably, this conclusion had a low strength of evidence. Over the three- to six-month period, home-visiting programs and multidisciplinary heart failure clinic interventions were found, with a high strength of evidence, to also have the effect of reducing all-cause readmission. Specifically, though, home-visiting programs were found by evidence of moderate strength to reduce heart-failure-specific readmission. Structured telephone-support interventions were found with high strength of evidence to reduce heart-failure-specific readmission; however, with a moderate strength of evidence, the studies suggested that these interventions did not decrease all-cause readmission rates. Home-visiting programs, multidisciplinary heart failure clinics, and structured telephone support all decreased mortality rates; in contrast, telemonitoring and primary educational interventions did not show any positive effects.</p>	2013	8/11 (AMSTAR rating from McMaster Health Forum)	3/47	n/a	47/47
	Identifying factors that support older patients with	This review aimed to address the complexity of providing care to older adults with multiple chronic diseases who receive care from a multitude of different services. In order to do so, the review consulted four studies to determine the	2013	5/9 (AMSTAR rating from	0/4	n/a	n/a

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	multiple chronic diseases during their transition between healthcare-service delivery types (128)	<p>components of a chronic-care model to support older adults during these transitions.</p> <p>The authors identified the components of a chronic-care model for an integrated health system as including clinical information sharing, community linkages, and supported self-management. The review found that the inclusion of these components likely improved health outcomes, patient-experience outcomes, and the transition between hospital and ambulatory care.</p> <p>Finally, the authors noted that further research is needed in order to gain a more comprehensive understanding of the effects of implementing these components of a chronic-care model.</p>		McMaster Health Forum)			
	Evaluating the effectiveness of transitional care for patients hospitalized with acute stroke or myocardial infarction (129)	<p>This review identified 44 studies that comparatively reviewed transitional care with standard care for adults hospitalized for acute stroke or myocardial infarction. The authors aimed to fill a gap in the evidence around transitional care after acute events, like stroke and myocardial infarction.</p> <p>The interventions examined could be categorized into four types. Type 1 interventions provided hospital-initiated support for discharge, type 2 interventions centred on patient and family education, type 3 interventions were community-based support interventions, and type 4 were based around chronic-disease management.</p> <p>At the patient level, whether the interventions improved outcomes was generally inconclusive. Some studies suggested that hospital-initiated interventions – particularly guideline-based care and specialty follow-up – decreased mortality after myocardial infarction; however, this evidence was low in strength. In some cases, early supported discharge interventions helped stroke patients; however, there were no significant improvements in mortality for stroke patients. When examining the patient and family interventions, the evidence was not sufficient to assert any conclusion. In the case of community-based interventions, the evidence was also insufficient. However, a few benefits of these interventions were shown in specific studies: one study showed increased physical activity after myocardial infarction; one study showed improvements in depression, walking activity, quality of life, and global disability (but not in activities of daily living or cognition); and one study showed improvements in anxiety, but not in a variety of other emotional, physical, and cognitive outcomes.</p> <p>Five stroke studies examined caregiver outcomes. No significant changes were shown in caregiver burden or caregiver satisfaction. Some studies showed positive improvements in caregiver outcomes; however the results were largely inconclusive.</p> <p>Finally, at the systems level there were some benefits to hospital-initiated interventions, including shorter stays and cost neutrality. These interventions</p>	2012	5/10 (AMST AR rating from McMaster Health Forum)	5/44	n/a	44/44

	<p>did not affect functional outcomes or re-hospitalization rates. The authors state that the evidence around systems-level outcomes is insufficient.</p> <p>In conclusion, evidence that was low to moderate in strength suggested that hospital-initiated interventions could improve certain outcomes. The evidence around the other types of interventions – patient and family education, community-based models, and chronic disease-management models – was insufficient. The authors suggest that definitions need to be standardized in order to increase strength of evidence so that specific interventions can be better evaluated.</p>					
Examining the effectiveness of transition-of-care services on patients hospitalized with stroke or myocardial infarction (130)	<p>This review examined 62 articles to determine if coordinated transition-of-care services positively affect patients who have been hospitalized with stroke or myocardial infarction.</p> <p>The authors identified four key types of interventions: 1) hospital-initiated support for discharge (the initial stage of transition); 2) patient and family education interventions (started in hospital, but continued within community); 3) community-based models; and 4) chronic disease-management models.</p> <p>As the research within the included studies was not generally methodologically rigorous, most studies did not come to a direct conclusion around the effectiveness of certain interventions. Limited evidence did suggest that intervention type 1 – hospital-initiated support for discharge – may have improved patient- and system-level outcomes. However, none of the other intervention types had enough evidence to come to a conclusion around their effectiveness.</p> <p>The authors suggest that studies investigating transition of care must utilize more rigorous methodology in the future. Furthermore, they note that the literature would be more useful if definitions were standardized. Finally, they wish more appropriate patient- and policy-related outcomes were utilized within the research in order to strengthen the evidence.</p>	2011	7/10 (AMSTAR rating from McMaster Health Forum)	7/62	n/a	62/62
Determining the effectiveness of nurse-assisted case management on improving hospital-discharge transition outcomes for elderly patients (131)	<p>This review examined 15 studies that focused on nurse-assisted case management. The authors found that eight of the 15 interventions led to reduced hospital readmission rates and/or decreased hospital lengths of stay. In the 11 studies that examined emergency-department usage rates, three found that usage decreased. All six of the studies that investigated expenses found that they were lower with the nurse-assisted case-management interventions.</p> <p>The authors suggest that it is important for hospital-discharge transitions to include frequent provider-patient contact, early post-discharge contact, patient education, and the utilization of specialized nurses.</p>	2006	2/10 (AMSTAR rating from McMaster Health Forum)	2/15	n/a	15/15
Examining the effects of	<p>This review identified 14 studies that examined the role of community pharmacies on the transition from secondary to primary care, particularly</p>	n/a	9/10 (AMSTAR	1/14	n/a	0/14

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	community pharmacies on secondary-to-primary care transition (132)	<p>focusing on patient and medication outcomes. Four studies examined the identification and rectification of medication errors, finding improvements as a result of community pharmacies. In examining other patient outcomes, like medication adherence and clinical control, the studies did not show community-pharmacy involvement as having a unanimously positive or negative effect.</p> <p>In conclusion, the studies suggest that community pharmacies can improve some drug-related outcomes after patient discharge; however, more research is needed to gain a better understanding of the effects.</p>		rating from McMaster Health Forum)			
Strategies to help providers to proactively identify older adults with complex health and social needs	None identified						
Strategies to engage older adults and caregivers as advisors to healthcare organizations	Examining whether patient engagement in patient advisory councils is linked to improvements in clinical quality, patient safety or patient satisfaction (100)	The review identified five studies showing promising methods for evaluating patient engagement in healthcare delivery and found positive impacts on clinical outcomes and priority setting. It also revealed that patient advisors tend to contribute to patient-facing services that may affect clinical care, but are not easily evaluated. More rigorous evaluation is needed to support the expansion of system-level patient engagement.	2015	7/10 (AMSTAR rating from McMaster Health Forum)	4/34	0/34	0/34
	Examining patient engagement in the development of best-practice reports related to transitions from hospital to home (101)	The review revealed that only half of existing best-practice reports that were found and that related to hospital-to-home transitions actively involved patients in report development. However, the extent of patient engagement in the development of best-practice reports has been increasing over time.	2019	6/9 (AMSTAR rating from McMaster Health Forum)	5/23	Not reported in detail	23/23

Appendix 3: Systematic reviews relevant to Element 3 – Enabling decision-makers to make small yet rapid changes to improve the quality of hospital-to-home transitions

Sub-element	Focus of systematic review	Key findings	Year of last search	AMSTAR (quality) rating	Proportion of studies that were conducted in Canada	Proportion of studies that dealt explicitly with one of the prioritized groups	Proportion of studies that focused on hospital-to-home transitions
Enabling decision-makers to make small yet rapid changes	Examining attempts to adopt the Learning Health System paradigm, with an emphasis on implementations and evaluating the impact on current medical practices (106)	<p>The review examined a total of 32 documents (a range of reports, scientific publications and other related grey literature), which included 13 studies, in order to examine the attempts to adopt the Learning Health System paradigm.</p> <p>A learning healthcare system is driven to generate and apply the best evidence for collaborative healthcare, while focusing on innovation, quality, safety and value. Patients are a major factor in this model of health provision, given the emphasis on collaboration and collective decision-making. This review examines the attempts to implement this model of medicine.</p> <p>The results of this review indicate that there has been very little action in terms of implementing learning health systems, despite a great deal of interest. It is possible that there is great trust placed in the learning health system without proper assessment of impact. This may have contributed to the low number of studies qualifying for inclusion in the review. A major focus should be placed on assessment and reporting, considering that many attempts to adopt this system of health have been attempted and not reported. Existing frameworks for assessing medicine applications can be used to assess the efficacy of learning health systems. Further, reporting of the evaluation of these systems must be comprehensive. Lack of consistency across studies diminishes quality and effectiveness, and makes it difficult to assess outcomes.</p> <p>Taken together, the Learning Health System paradigm must be of central focus to researchers moving forward. While the central tenets of this approach are</p>	2015	3/10 (AMSTAR rating from McMaster Health Forum)	0/13	Not reported in detail	Not reported in detail

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		supported by researchers, there is a lack of assessment. The impact of such a system must be evaluated in order to boost adoption.					
	Examining the spectrum of ethical issues that is raised for stakeholders in a Learning Health Care System (107)	<p>The review examined 65 studies in order to determine the spectrum of ethical issues raised for stakeholders in a “Learning Health Care System”.</p> <p>A Learning Health Care System embodies an approach for integrating clinical research and clinical practice, in order to address problems of effectiveness and efficiency in the healthcare system. In such a system, knowledge generation should be embedded so that health systems can learn and grow. However, this blend of research and practice raises ethical dilemmas such as confidentiality and consent. This review aimed to summarize pertinent ethical issues in order to guide decision-making among healthcare professionals and policymakers.</p> <p>The ethical issues arising in Learning Health Care Systems can be broken down into different phases. In the phase of designing activities, ethical issues include the risk of negative outcomes that may result from activities that are not academically rigorous. As well, it is possible that stakeholders will not engage with this stage, which can affect trust and support in a learning activity. In the ethical oversight of activities, confusion surrounding ethical obligations and regulations can hinder progress. In conducting activities, the involvement of participants can lead to ethical difficulties with consent and data management. In implementing learning, main difficulties arise in changing practice efficiently, maintaining transparency, and reducing unintended negative consequences.</p> <p>The distinction between “research” and “practice” often creates ethical confusion, as many learning healthcare activities do not fit this dichotomy. Strategies to cope with these ethical problems include implementing policies and procedures, providing training and guidance for ethical committee members, and streamlining ethical-review processes. The rights of individuals must be protected as healthcare quality improves.</p>	2015	1/9 (AMSTAR rating from McMaster Health Forum)	Not reported in detail	Not reported in detail	Not reported in detail

		Future research should focus on clarifying these ethical dilemmas and contribute to improving the quality of healthcare.					
	Examining the creation of rapid-learning health systems in Canada (105)	<p>Most Canadian health systems have both a health system and a research system that are increasingly putting patients and rapid learning and improvement at their centre. This report is meant to start a conversation about how the framework and concepts can be adapted, piloted and iteratively revised within and across Canadian jurisdictions.</p> <p>Creating rapid-learning health systems offers the potential to: 1) 'move the dial' for patients in their experiences and outcomes in rapid-improvement cycles; 2) enable data- and evidence-informed transformations at all levels of a health system; 3) motivate greater collaboration among, and enable greater impacts of (and returns on investments in), all elements of the research system; and 4) better leverage quality-improvement and other learning and improvement infrastructures operating at the interface between the health and research systems.</p>	2018	5/9 (AMSTAR rating from McMaster Health Forum)	Not reported in detail	Not reported in detail	Not reported in detail
	Examining the creation of rapid-learning health systems in Ontario (104)	Ontario has both a health system and a research system that are increasingly putting patients and rapid learning and improvement at their centre. The concept of a rapid-learning health system could be used to identify how best to leverage existing assets and address current gaps, but it requires an Ontario-appropriate definition of, and set of characteristics for, a rapid-learning health system; a documentation of existing assets and identification of current gaps; and the identification of 'windows of opportunity' that can be capitalized on or created to stimulate the development and consolidation of a rapid-learning health system. This rapid synthesis addresses this need.	2018	5/9 (AMSTAR rating from McMaster Health Forum)	Not reported in detail	Not reported in detail	Not reported in detail



HEALTH FORUM

>> Contact us

1280 Main St. West, MML-417
Hamilton, ON, Canada L8S 4L6
+1.905.525.9140 x 22121
forum@mcmaster.ca

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