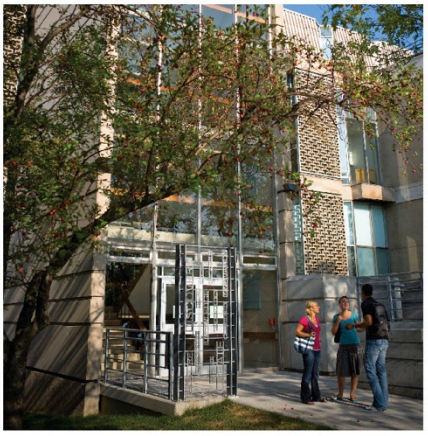
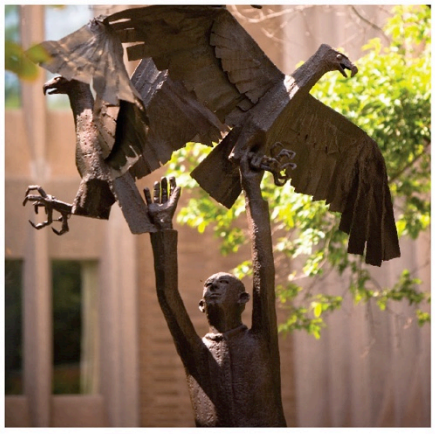
McMaster University

McMaster HEALTH FORUM

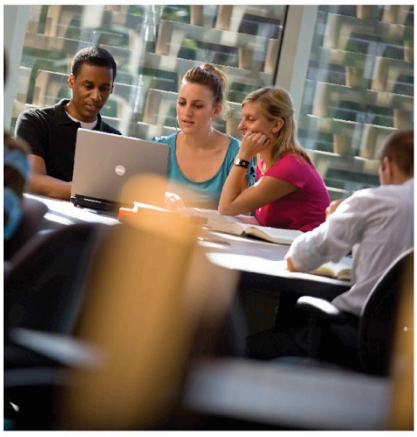
EVIDENCE BRIEF





DEFINING THE MENTAL HEALTH AND ADDICTIONS 'BASKET OF CORE SERVICES' TO BE PUBLICLY FUNDED IN ONTARIO

24 JUNE 2016



EVIDENCE >> INSIGHT >> ACTION

Evidence Brief:
Defining the Mental Health and Addictions 'Basket of Core Services' to be Publicly Funded in Ontario

24 June 2016

McMaster Health Forum

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

Authors

Heather Bullock, M.Sc., Co-Lead, Evidence Synthesis, McMaster Health Forum

Kerry Waddell, M.Sc., Co-Lead, Evidence Synthesis, McMaster Health Forum

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

Funding

The funding for the stakeholder dialogue (and the evidence brief that informed it) was provided by the Government of Ontario and the Ontario SPOR Support Unit (OSSU). The McMaster Health Forum receives both financial and in-kind support from McMaster University. The views expressed in the dialogue summary are the views of the dialogue participants and should not be taken to represent the views of the funders, McMaster University or the authors of the dialogue summary.

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.

Acknowledgements

The authors wish to thank Aunima Bhuiya, Sonia Ruo Chen Huang, Adrian Guta, Francois-Pierre Gauvin and Kaelan Moat for their assistance with reviewing the research evidence about the three elements. We are grateful to Steering Committee members, merit reviewers (Raymond Cheng, Christina Hackett, Steve Lurie, and Rod Olfert) and key informants for providing feedback on previous drafts of the brief. The views expressed in the evidence brief should not be taken to represent the views of these individuals.

Citation

Bullock H, Waddell K, Lavis JN. Evidence Brief: Defining the Mental Health and Addictions 'Basket of Core Services' to be Publicly Funded in Ontario. Hamilton, Canada: McMaster Health Forum, 24 June 2016.

Product registration numbers

ISSN 1925-2250 (online)

Table of Contents

KEY MESSAGES

What's the problem?

- Adult Ontarians experience the full continuum of mental health and addictions challenges, with three broad groups distinguishable within this continuum: 1) general population and those at risk of mental health and/or substance use problems; 2) those with mild to moderate mental health and/or substance use problems; and 3) those with severe and persistent mental illness and/or addiction.
- The basket of core services that is publicly funded across this full continuum has not been defined for adults in Ontario (in contrast to the case in some other parts of the health system).
- Many providers are involved in the delivery of services, including both regulated health professionals and a broad range of other workers from health and social sectors. People who need these services often have difficulty determining how to access them since the mechanisms for doing so vary across the province, and they may face lengthy wait times. Mental health and addictions agencies and hospitals deliver a heterogeneous array of services under contract to government ministries or Local Health Integration Networks. Some services are only available through private insurance coverage and out-of-pocket payment, creating concerns about access and equity.

What do we know about three elements of an approach to address the problem?

- Element 1 – Defining the basket of core services for the general population and those at risk of mental health and/or substance use problems
  - Fewer high-quality reviews and conclusive evidence were found for this element compared to others.
  - Among health-promotion services, the evidence was strongest for interventions targeting stigma reduction, with both mass media campaigns as well as targeted interventions found to be effective at increasing supportive behaviour towards those with mental health problems and reducing stigma.
- Element 2 – Defining the basket of core services for those with mild to moderate mental health and/or substance use problems
  - Self-help interventions were found to be an effective intervention.
  - Evidence confirmed that psychological therapies, such as cognitive behavioural therapy, are an effective intervention for adults and emerging adults across a range of illnesses and settings.
- Element 3 – Defining the basket of core services for those with severe and persistent mental illness and/or addiction
  - A number of reviews focused on models of acute care that can be delivered in the community instead of traditional inpatient services.
  - Evidence pointed to the importance of smooth transitions and coordination both for transitions from hospital to community care as well as from youth to adult services.
  - Services that address the social determinants of health are important supports for the recovery of adults with severe and persistent mental illness and/or addiction, with housing having been shown to reduce the use of institutional services (hospitals and prisons) among recipients.

What implementation considerations need to be kept in mind?

- Service recipients may resist the loss of services they value, just as professionals and organizations may resist the loss of services that they feel competent to provide or that constitute a large share of the organizations' work. Policymakers may not make the necessary changes to the governance, financial and delivery arrangements that ensure that the right services get to those who need them most.
- The introduction of a publicly funded mental health and addictions basket of services for children and youth in Ontario, and for adults in jurisdictions like Alberta, suggest that this can be done.

REPORT

In 2015, nearly two million Ontarians saw their family physicians for mental health or substance use concerns. Together these two broad categories of conditions account for approximately 10% of the disease burden in Ontario.(1) Across the province, family members, caregivers and health and social service providers work hard to support those with mental health and substance use problems, and individuals experiencing such problems work hard to recover and regain full mental wellness. However, with many different providers, entry points and financial arrangements, Ontario continues to face challenges in planning for and providing mental health and addictions services that meet the needs of the population. Ontarians, regardless of geographic location, age, income, ethnicity and sexual orientation, should ideally have equitable access to the services they need to lead a fulfilling life. An important part of achieving such a goal is determining *what* services should be publicly funded across the province.

The Ontario government currently spends $3.5 billion every year on children, youth and adult mental health and addictions services, with additional investments for social housing, education and vocational training.(1) Municipal governments and the federal government also make financial contributions. However, it is estimated that mental health and addictions services in Ontario are underfunded by $1.5 billion annually relative to their share of the province's disease burden.(2) In 2010 an all-party committee of the Ontario government concluded that a "crisis has arrived."(3)

Ontarians encounter difficulties in accessing mental health and addictions services, with wait times for services, many gaps in care, and inconsistent access.(1) In addition to access challenges, many service recipients have difficulties navigating the complex and unconnected array of programs and providers delivering mental health and addictions services, some of which are publically funded and others that are not. This fragmentation is especially concerning for marginalized populations and those with concurrent mental health and addictions issues.

In light of many of these challenges, in 2011 the Ontario government released a comprehensive mental health and addictions strategy 'Open Minds, Healthy Minds,'(4) which defined a path towards the improvement of mental health and addictions services.

Box 1: Background to the evidence brief

This evidence brief mobilizes both global and local research evidence about a problem, three elements of a potentially comprehensive approach 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 the evidence brief, particularly the framing of the problem and the three elements, 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, with each focusing on a broad category of service users, were not designed to be mutually exclusive. Most importantly, individuals may present in ways that are not necessarily indicative of a diagnosis of mild, moderate or severe and persistent mental illness or substance use problems.

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.

This strategy was complemented by the children and youth mental health document 'Moving on Mental Health,'(4) released in 2012, which proposed a set of minimum expectations (or core services) that would be provided across the province. Four years after this document was released, significant progress has been made in strengthening mental health services for children and youth in Ontario. This work has included defining a basket of core services to be provided, designating lead agencies that will be responsible for planning, and ensuring that core, community-based mental health services are available in all Ministry of Children and Youth Services regions for children and youth up to age 18. However, addictions services and hospital-based services for this population were determined to be 'out of scope' for this new model, leaving a potential service gap for the system.

In 2014, following the actions taken on the child and youth strategy and in an effort to achieve the objectives laid out in 'Open Minds, Healthy Minds,'(4) the Ontario government expanded this planning process to include mental health and addictions services of all ages. To lead the effort in the adult system, the Ministry of Health and Long-Term Care convened a Mental Health and Addictions Leadership Advisory Council. Following closely in the footsteps of the Ministry of Child and Youth Services, the Advisory Council's 'Basket of Core Mental Health and Addictions Services' Task Group has been asked to define an initial basket of core services that should be publicly funded and available in all regions across the province. The task group has undertaken a jurisdictional scan to support its own definition of adult and transition-aged youth services, and has requested this evidence brief and stakeholder dialogue (and possibly a future citizen panel) to help inform the selection of services that should be consistently provided across Ontario.

This evidence brief has been developed within this context and focuses on the effectiveness of mental health and addictions services for adults (those 18 and over) and transition-aged youth (individuals between the ages of 16 and 25, which includes those who are 16-17 and will soon 'age out' of children and youth services), although elsewhere in the evidence brief we use the term 'adult' for brevity. As a basket of core services has already been defined for children and youth, this brief does not address services for those aged 15 or younger, except for select addictions services where equivalent children's services do not exist. Further, the brief does not address services for adults living with dementia since these individuals face different service trajectories and tend to receive care from other types of health

Box 2: Equity considerations

A problem may disproportionately affect some groups in society. The benefits, harms and implementation considerations to address the problem may 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 two groups:

- Ontarians living with co-morbidities that may affect treatment effectiveness; and
- Ontarians for whom challenges in service delivery or broader contextual factors may affect treatment effectiveness, including:
  - francophone Ontarians,
  - indigenous Ontarians,
  - racialized Ontarians and new immigrants/ refugees,
  - lesbian, gay, bisexual, transgender, queer and questioning (LGBTQQ) Ontarians,
  - Ontarians living in poverty,
  - Ontarians living in rural and remote communities, and
  - justice-involved Ontarians.

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.

professionals. As well, the brief does not address services for the co-morbidities that adults facing mental health and addictions issues may also be dealing with, although (as noted in Box 2) the evidence brief does address whether co-morbidities may affect the effectiveness of mental health and addictions services. Finally, the brief does not include pharmacological interventions alone due to its focus on services rather than the specific treatments provided in the context of these services.

In developing this brief, a number of working definitions were adopted to help provide structure and consistency to the document (Table 1).

Table 1: Working definitions of key terms

Term	Working definition
Mild to moderate mental health and/or substance use problems	Individuals who are experiencing less than optimal mental wellness, resulting in challenges participating fully in daily activities, but who do not necessarily fit diagnostic criteria for mental illness or addiction (note that this includes individuals who have never received a diagnosis of mental illness or addiction as well as those who have recovered from mental illness and/or addiction but continue to experience some problems)
Severe and persistent mental illness and/or addiction	Individuals who have been diagnosed with a mental illness and/or addiction using the Diagnostic and Statistical Manual of Mental Disorders, 5th Edition (DSM-5) or similar diagnostic instruments from a qualified professional
Concurrent disorders	Individuals experiencing mental illness and addictions problems at the same time
Dual diagnosis	Individuals experiencing a mental illness and a developmental disability at the same time
Mental health and addictions services	Community-based, residential and hospital-based programs, interventions and/or supports designed to serve people who are experiencing, or are at risk of experiencing, mental health and/or substance use problems
Basket of core services	A set of core institutional, hospital, residential and community services that should be available in every region of the province
Public funding	Financial resources provided by the Ontario government and related bodies (such as Local Health Integration Networks)

THE PROBLEM

Mental health and addictions services are in the midst of a transformative period in Ontario. There have been efforts made over the past decade to shift from institution-based care to community models of care, which have allowed individuals to be cared for and supported in less restrictive settings.(5) Still, many previous and current reports point to the continued challenge that Ontarians face in obtaining appropriate and continuous services close to home.

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 Ontario specific and international organizations, such as the Centre for Addictions and Mental Health, ConnexOntario, Health Quality Ontario, the Ontario Ministry of Health and Long-Term Care, and the Canadian Institute for Health Information.

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.

In particular, the problem can be understood in relation to four features of the problem:

1) adult Ontarians experience the full continuum of mental health and addictions challenges, with three broad groups distinguishable within this continuum: i) general population and those at risk of mental health and/or substance use problems; ii) those with mild to moderate mental health and/or substance use problems; and iii) those with severe and persistent mental illness and/or addiction;
2) the basket of core services that is publicly funded across this full continuum has not been defined for adults in Ontario (in contrast to the case in some other parts of the health system);
3) many providers are involved in the delivery of services, and people who need them often have difficulty accessing them; and
4) mental health and addictions agencies and hospitals are contracted to deliver a heterogeneous array of services, and some services are not publicly funded.

While reports point to a number of other challenges affecting how mental health and addictions services are delivered, these aspects were identified with input from key informants and a steering committee of mental health and addictions experts as being important challenges to consider in the development of a core basket of mental health and addictions services.

Adult Ontarians experience the full continuum of mental health and addictions challenges

The mental health and substance misuse needs of Ontarians vary in degree and duration. Many of these needs first emerge during the nexus between childhood and adulthood, however, they can manifest at any time throughout an individual's life course. These conditions often have a profound effect on individuals experiencing them, including on their relationships, occupations, hobbies and ability to lead a fulfilling life. Three broad groups can be distinguished within the full continuum of mental health and addictions challenges:

1) general population and those at risk of mental health and/or substance use problems;
2) those with mild to moderate mental health and/or substance use problems; and
3) those with severe and persistent mental illness and/or addiction.

In speaking with health-system stakeholders while preparing this evidence brief, it was consistently suggested that the current system does not adequately meet the needs of these three groups, and it places an over-

emphasis on acute care at the expense of upstream services. Too often this results in individuals being treated after their condition has progressed. However, stakeholders also noted that the goal of a mental health and addictions treatment and support system must continue to be the full recovery of service recipients so that they can continue to lead full lives.

The basket of core services that is publicly funded across this full continuum has not been defined for adults

Government ministries and Local Health Integration Networks (LHINs) – the 14 geographically defined bodies charged with planning, integrating and funding healthcare – have not been able to rely on a defined basket of core services in choosing what mental health and addictions services are publicly funded in their respective regions. This discretionary approach operates in contrast to a number of other parts of the Ontario health system where a basket of core services has been explicitly defined for public funding, such as:

- community-based children and youth mental health services (as noted above);
- physician services (as reflected in the Ontario Health Insurance Plan's Schedule of Benefits, which effectively defines 'medically necessary' physician services);
- services in select sectors, including home-care services and public-health programs; and
- services for select populations, including status First Nations peoples and Inuit eligible to receive services through the federal government's Non-Insured Health Benefits program.

The lack of a basket of core services, and of a process for deciding what should be added to or removed from the basket over time, leads many Ontarians to be confused about what is or is not available and how such decisions are made. Some LHINs have attempted to address this concern by developing their own transparent processes to assist in making funding decisions through their Health Service Improvement Proposal mechanism. Compounding the challenges created by the lack of a basket of core services are persistent gaps in information about Ontarians' needs and preferences for and use of mental health and addictions services, as well as the quality and outcomes of these services.(6) While there are several efforts addressing information gaps in the province, such as the development and implementation of the Ontario Common Assessment of Need instrument and the definition of a set of indicators and service standards for the mental health system,(1) these efforts are still in an early stage.

Many providers are involved in the delivery of services, and people who need them often have difficulty accessing them

Across the continuum of mental health and substance use problems, individuals often require a variety of services provided by a range of service providers, including both regulated professionals (e.g., nurses) and unregulated workers (e.g., peer-support workers), in a range of agencies and organizations, and in a range of sectors (e.g., health, social services and justice). While individually these providers may each deliver important services, their differing levels of connectedness to other providers and to the system as a whole can cause confusion for service recipients and may lead to individuals with the same needs being assessed, diagnosed and treated or supported in very different ways.

Simply working out how to access services can sometimes be challenging. Currently, no centralized intake, assessment and referral mechanism exists in all Local Health Integration Networks. While select organizations such as the Centre for Addiction and Mental Health, and select regions such as the Central East LHIN, Mississauga Halton LHIN, Toronto Central LHIN and Waterloo Wellington LHIN, have begun using these models, there is no consistent approach across the province. This is in contrast to other sectors such as, for example, home and community care, where Community Care Access Centres play a key role in supporting access to appropriate services. The lack of a clearly identified 'front door' to mental health and addictions services can place a significant burden on service recipients, caregivers and family members to navigate the system, can lead service recipients to first access mental health and addictions services (and even healthcare providers to refer service recipients to first access such services) through hospital emergency departments

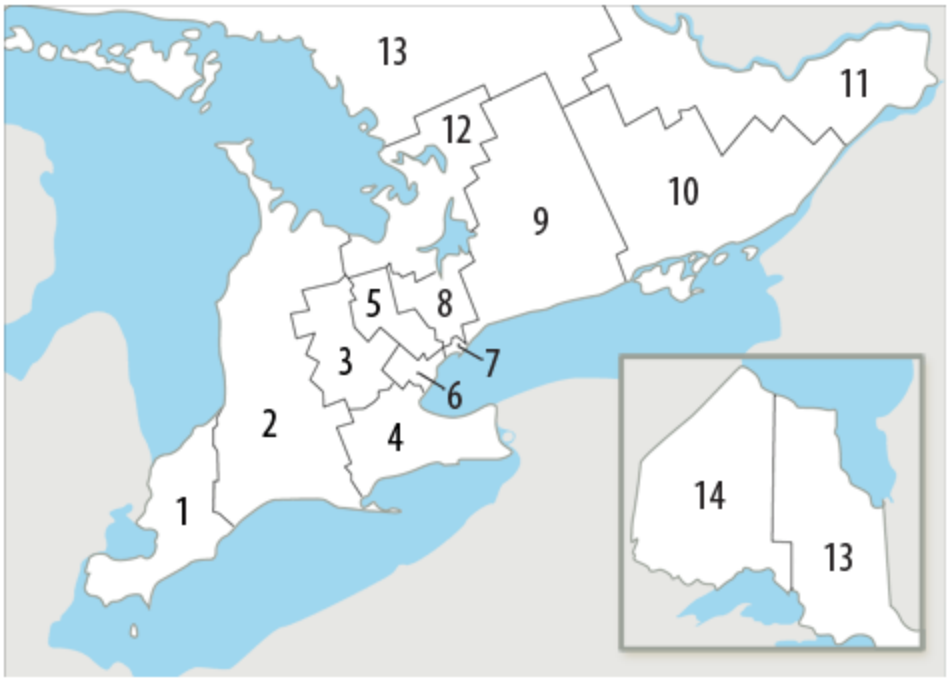
(which are often poorly equipped to provide appropriate referral and follow-up), and can undermine efforts to improve the coordination of services.(7)

Service recipients may also face lengthy wait times for needed services, leading some to essentially "give up" on seeking services. There is also a risk that an individual's mental health and/or substance use problem may deteriorate during the long wait for services, leading to a need for more acute or intensive services than would have otherwise been required.

Mental health and addictions agencies and hospitals are contracted to deliver a heterogeneous array of services, and some services are not publicly funded

The Ministry of Health and Long-Term Care provides funding to the LHINs, which in turn contract with mental health and addictions agencies and with hospitals to provide an array of services to support their respective population's mental health and addictions service needs (Figure 1). The contracting involves accountability agreements that lay out the expectations for the services that contracted agencies and hospitals are to provide. As of 2014, there were over 300 community-based mental health and addictions agencies and 71 hospitals holding such accountability agreements across the province.(4)

Figure 1: Map of Local Health Integration Network regions (Reproduced from (8))



Legend for Figure 1: 1) Erie St. Clair; 2) 2 South West; 3) Waterloo Wellington; 4) Hamilton Niagara Haldimand Brant; 5) Central West; 6) Mississauga Halton; 7) Toronto Central; 8) Central; 9) Central East; 10) South East; 11) Champlain; 12) North Simcoe Muskoka; 13) North East; and 14) North West.

While there are a large number of agencies and hospitals providing these services, the challenge with the current financial arrangements is that LHINs are contracting different services in different quantities (Tables 2 and 3), although several system stakeholders have noted that the available data do not always accurately reflect what services are delivered 'on the ground.' A further complication is that government ministries may also directly contract with some agencies.

Table 2: Availability of mental health services by Local Health Integration Network (9)

Service type	Local Health Integration Network number													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Abuse services	3	10	3	2	3	0	4	2	2	6	9	5	14	2
Alternative businesses	0	0	0	2	0	0	7	0	1	0	1	0	1	0
Assertive community treatment team (ACTT)	3	9	4	6	3	5	12	6	9	5	11	5	10	4
Case management/ supportive counselling and services	21	47	7	36	9	19	38	33	34	24	30	16	54	65
Centralized coordination/access	0	0	4	1	0	1	1	1	0	2	1	0	2	0
Clubhouse	0	0	0	2	1	0	1	0	0	0	0	1	1	1
Community development	0	0	0	0	0	0	2	0	0	0	0	0	1	0
Community service information and referral	0	2	0	4	0	0	1	1	0	0	0	0	8	0
Counselling and treatment	26	30	10	33	6	18	32	17	18	32	40	15	81	35
Crisis intervention	8	14	5	15	4	2	14	5	13	12	15	12	29	17
Diversion and court support	3	8	7	7	3	1	4	8	6	5	14	7	13	3
Early psychosis intervention	3	8	4	9	4	5	8	3	10	5	7	3	18	1
Family initiative	3	2	1	5	2	5	10	1	7	4	8	1	6	4
Health promotion and education	1	2	4	1	1	3	5	0	5	1	1	1	11	3
Homes for special care	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Inpatient	1	0	0	2	0	1	3	1	1	0	0	0	2	0
Peer/self-help initiatives	6	11	5	9	1	3	7	8	8	14	10	9	19	11
Primary day/night care	0	0	2	3	0	2	5	4	1	0	2	0	1	0
Short-term crisis support beds	3	6	2	4	1	3	6	4	4	3	6	2	5	4
Social rehabilitation/ recreation	2	23	0	7	2	0	8	6	9	8	9	0	10	7
Support within housing	4	26	7	25	5	12	52	11	14	17	22	6	21	15
Vocational/ employment	4	4	1	3	1	5	4	3	0	5	10	1	2	0

Table 3: Availability of addictions services by Local Health Integration Network (9)

Service type	Local Health Integration Network number													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Case management	0	3	1	1	3	1	2	3	5	1	28	6	11	8
Centralized/coordinated access	0	0	4	0	0	0	1	0	0	0	1	0	0	0
Community day/evening treatment	3	1	4	9	3	0	10	4	3	0	5	1	5	0
Community medical/psychiatric treatment	1	0	0	0	0	0	0	0	0	0	1	0	0	0
Community treatment	33	33	24	71	16	27	29	27	45	27	54	16	112	76
Community withdrawal management	2	2	0	1	0	5	4	5	7	0	6	2	2	1
Residential medical/ psychiatric treatment	0	0	0	0	0	0	0	0	0	0	1	0	0	0
Residential medical withdrawal management in-patient short term	0	0	0	0	0	0	1	1	0	0	0	0	0	0
Residential supportive treatment	0	3	1	4	0	0	7	0	0	1	10	0	7	6
Residential treatment	5	1	8	6	2	3	10	0	3	3	13	1	13	6
Residential withdrawal management	1	2	1	5	1	0	5	0	1	1	1	1	5	3
Support within housing	1	3	3	6	0	3	10	1	4	1	4	3	6	3

In theory, the observation that LHINs are contracting different services in different quantities makes sense, as local populations across the province may differ greatly in the services they require to meet their unique needs. In practice, however, several issues arise. First, the definitions of service types often overlap, leading to confusion about what a particular service includes. Second, without high-quality information about need (such as the prevalence and incidence data provided in Table 4, but broken down by LHIN, as can be done with the Health Indicator Tool) that can be compared to existing patterns of service utilization (again broken down by LHIN), these contractual arrangements can result in an inequitable distribution of services within a region (for different types of service recipients) or across regions (for the same types of service recipients). Third, without an attentiveness to the unique challenges faced by those living in rural and remote areas (such as LHINs 13 and 14), who may require culturally or linguistically appropriate providers and face complicated travel arrangements, these contractual arrangements can lead to the services offered in these areas being less comprehensive than their urban counterparts, and often requiring extensive travel by service recipients or providers.(10)

Table 4: Ontario prevalence and incidence of mental health and substance use disorders (11)

Indicators	Prevalence (Life)	Incidence (12 months)
Any selected disorder (mental or substance)	3,204,029	1,054,382
Any mood disorder	1,327,047	611,175
Major depressive episode	1,193,555	534,146
Bipolar disorder	292,240	193,876
Generalized anxiety disorder	890,444	276,215
Any substance use disorder (alcohol or drug)	2,067,760	456,652
Alcohol abuse or dependence	1,723,945	334,295
Cannabis abuse or dependence	688,752	132,792
Other drug abuse or dependence (excluding cannabis)	339,947	71,340
Cannabis use	4,386,897	1,331,299
Other drug use (excluding cannabis)	2,116,928	596,840
Suicidal thoughts	1,167,414	397,153

Further complicating matters is the reality that some services are not publicly funded in all or some regions, which creates concern about equity of access. Certain services may, for example, only be available across the province through private insurance coverage and out-of-pocket payment. Other services may be available in some regions or communities within region because local charities or philanthropists pay for the service.

THREE ELEMENTS FOR ADDRESSING THE PROBLEM

Many approaches could be selected as a starting point for deliberations to inform the development of a core basket of mental health and addictions services in Ontario. To promote discussion about the services to be included in such a basket, the evidence brief has been organized according to three elements, each corresponding with a set of services designed to meet the needs of a group located primarily at a particular point on the continuum of mental health and addictions challenges:

1) defining the basket of services for the general population and those at risk of mental health and/or substance use problems;
2) defining the basket of services for those with mild to moderate mental health and/or substance use problems; and
3) defining the basket of services for those with severe and persistent mental illness and/or addiction.

This approach was selected with the understanding that individuals' needs change throughout the lifespan, and therefore a person may require different services at different points in time, but possibly multiple services spanning several elements at the same time. The operationalization of the approach was undertaken and refined by examining the work of another government ministry (Ministry of Child and Youth Services) and another jurisdiction (Alberta), and by consulting with the steering committee and with key informants.

No approach is perfect, however, and three caveats need to be borne in mind. First, all three elements are important (so they are presented as elements, not options), but the relative priority accorded to each element and to the services comprising each element may vary based on both 'objective' measures of need and effectiveness and 'subjective' measures of the value attributed to particular services and their outcomes (which we return to below). Second, service recipients, such as those with acute and episodic needs (who are not captured explicitly in the three groups), may require services drawn from different elements. Third, services provided in combination may be more effective at times than single services alone, and hence some services may need to be bundled.

Explicit decisions about which services to include in a basket of core services are typically based on seven criteria:

1) burden of disease (i.e., need);
2) benefits and harms of the services (that is, the balance between desirable and undesirable effects);
3) values and preferences about the outcomes achieved and the balance between benefits and harms;

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

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

The available research evidence about elements for addressing the problem was sought from PubMed, ACCESSSS, and the Cochrane Library (for clinical evidence), Health Evidence (for public health evidence), Health Systems Evidence (for delivery arrangements like case management and implementation strategies like awareness raising), and the Campbell Collaboration (for social sector evidence). The research evidence was identified by searching the database for systematic reviews addressing the services grouped under 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 effectiveness of the service 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 a service 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.

Cost-effectiveness analyses were included only if they were reported in an included systematic review and if they compared options within a broad category of services.

Those interested in learning more about a particular service may want to search for a more detailed description of the service or for additional research evidence.

4) resource use, which includes both budget impact and cost-effectiveness;
5) impact on health equity;
6) acceptability to stakeholders; and
7) feasibility of implementation.(12)

Given the time constraints under which the 'Basket of Core Mental Health and Addictions Services' Task Group is working (and hence we as evidence-brief preparers are working), this section of the evidence brief focuses on criteria 2 and 5 and to a lesser extent part of 4 (and the next section, which is focused on implementation considerations, focuses to some extent on criterion 7). The stakeholder dialogue that the evidence brief was prepared to inform will provide an opportunity to discuss criteria 3 and 6 as well. If we proceed with a citizen panel, panelists can also address criteria 3 and 6. Once the basket of services is agreed upon, LHINs (and government ministries) can take criteria 1, part of 4, and 7 into account when making decisions for a particular region (or for the province as a whole when cost or other considerations mean that a services is best coordinated and funded centrally, as may be the case for, say, forensic services).

Again given time constraints, to address criteria 2 and 5 we focus on findings from systematic reviews, particularly those for which the search for studies was conducted within the last five years (unless we could find no reviews, in which case we conducted a targeted search for older reviews, which we note where applicable). For any given service, we describe the intervention that was studied and 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 appendix B for more details about the quality-appraisal process). We present separately the findings about what works (and what doesn't) in general (criterion 2) and separately, if available, for two prioritized groups of service recipients (see Box 2), which are those with co-morbidity and 'other groups' (criterion 5). The 'other groups' are Ontarians for whom challenges in service delivery or broader contextual factors may affect treatment effectiveness, namely:
1) French-speaking Ontarians;
2) indigenous Ontarians (that is, First Nations, Inuit and Métis);
3) transition-age youth (that is, those aged 16-25);
4) racialized Ontarians and new immigrants/refugees;
5) lesbian, gay, bisexual, transgender, queer and questioning (LGBTQQ) Ontarians;
6) Ontarians living in poverty;
7) Ontarians living in rural and remote communities; and
8) justice-involved Ontarians (for example, those in prison).

To complement the findings from the 127 systematic reviews described in the evidence brief, we also note whether the services are currently provided to adults in Ontario or in a LHIN, sector (child and youth mental health) or jurisdiction (Alberta) that has already gone through a similar prioritization process. An additional complement to this work that could be considered in future would be an examination of the services prioritized in recent national or provincial documents, such as the work led by the Mental Health Commission of Canada on peer support,(13-14) as well as their work addressing services for immigrant, refugee, ethnocultural and racialized groups.(15)

It is important to highlight that the volume of systematic reviews for mental health and addictions services is somewhat limited. As key informants and merit reviewers have noted, funding for applied mental health and addictions research has traditionally been limited, leading to fewer studies and therefore fewer systematic reviews of studies than is the case for other sectors. Additionally, the available systematic reviews typically focus on services that have a longer history of provision in the system, and many of the newer services (such as those in the area of peer support) have not yet reached the 'level' of systematic review. Furthermore, there is well-documented variability in mental health and addictions outcomes that can serve to 'dilute' findings at the systematic review level. Some of this variability has been attributed to the critical importance of the therapeutic relationship between service provider and service user.(16) Another source of variability is the myriad of sub-populations as well as the numerous mental health and addition problems that are possible for someone to experience.

Element 1 – Defining the basket of services for the general population and those at risk of mental health and/or substance use problems

The first element includes services geared towards the population at large and those at risk of mental health or substance use problems. This element looks primarily to mental health promotion and to mental illness and substance misuse prevention. This includes:

- mental health promotion services, namely:
  - stigma-reduction interventions,
  - befriending programs,
  - suicide awareness, education and information,
  - promoting well-being in the workplace; and
- mental illness and addictions prevention services, namely:
  - suicide-prevention interventions,
  - workplace screening for psychological health and safety,
  - screening for substance misuse and other addictions,
  - harm reduction interventions,
  - outreach interventions.

Our search yielded fewer high-quality reviews and conclusive evidence than for the two other elements presented in this brief. This finding reflects the views of system stakeholders that arose repeatedly in key informant interviews: that the system – and hence that research – continues to place emphasis on acute and intensive treatment for individuals experiencing mental illness and/or addictions. However, this reality should not undermine the importance of mental health promotion and the concept of mental well-being in reducing the incidence, duration and impact of mental illness and addictions. Many of the determinants of mental health, as with physical health, are largely reliant on social and economic aspects that may be difficult to measure in rigorous scientific studies and reviews, and that may fall outside of what would typically be considered health services.

Twenty-one reviews of varying quality were identified. While many of these reviews reported some levels of uncertainty in drawing conclusions, a few high-quality reviews noted the effectiveness of certain interventions, which we return to below. Some of the reviews focused on services targeting the general population (e.g., mass media campaigns (17)), while others specifically targeted individuals experiencing a mental illness or addictions (e.g. befriending interventions (18)). The reviews also encompassed a range of settings such as online environments,(19) treatment settings,(17;20-24) workplaces,(19-20;25-27) mobile,(28) and community settings.(24;29) Most of the reviews did not include studies specifically targeting the priority populations (those with co-morbidity and the 'other groups'), with only three exceptions: 1) a medium-quality review that examined suicide-prevention strategies for indigenous communities;(24) 2) a medium-quality review that examined family-based intervention to reduce alcohol misuse in indigenous communities;(29) and 3) a high-quality review targeting younger injection drug users.(30)

Mental health promotion

The evidence was strongest for health-promotion services targeting stigma reduction. In terms of broad, population-based approaches, there is some evidence to suggest that mass-media campaigns had a small effect on reducing prejudice toward mental illness.(17;19;31) Other strategies aimed at members of the public through approaches like training, psychoeducation and mental health first aid were found to be effective at increasing supportive behaviour towards those with mental illness, as well as increasing their perceived ability to assist individuals with mental illness. Importantly, one of these reviews found that this effect was sustained, at least in part, over the long term.(19) Furthermore, the individual experiencing mental illness or addiction can experience 'personal stigma', and a high-quality review found that services such as educational interventions and consumer contact had a small but significant effect at reducing personal stigma for a range of mental illness diagnoses (31) and for individuals using substances.(32)

Other mental health promotion strategies include suicide awareness, workplace mental health, and befriending interventions. Suicide-awareness interventions were found to be effective at improving citizens' awareness of suicide, with multifaceted interventions targeting suicide awareness and information, and those targeting specific communities found to be the most effective approach based on a review of medium quality.(33) Furthermore, based on a medium-quality review, strategies aimed at promoting well-being in the workplace, including physical activity and cognitive behavioural therapy interventions, had some effect on the rates of stress, depression and anxiety.(26) Finally, there is some evidence that some forms of peer support, such as befriending interventions, may be effective, but only for certain populations and groups.

Mental illness and addictions prevention

The evidence for suicide-prevention services is less clear, making it challenging to come to any general conclusions. Overall, our search found evidence for education and training,(13;23), gatekeeper training,(18;23), cognitive behavioural therapy,(29) and institutional policies,(18;23) being effective or somewhat effective strategies for suicide prevention, based on medium-quality reviews. In terms of specific populations and equity considerations, the evidence is most compelling for strategies targeting youth and young adults,(23;24) as well as for indigenous communities.(23-24;34)

The evidence for screening interventions for mental health and/or substance use problems is promising, but the diversity of interventions available, the range of settings in which they are delivered, the types of problems they screen for, and the limited quality of the available studies make it difficult to draw any firm conclusions. One high-quality systematic review focussing on screening for alcohol use in primary care demonstrated that electronic screening and brief interventions are effective at reducing alcohol consumption,(35) but a workplace depression screening review could not draw any firm conclusions regarding effectiveness.(16)

Prevention services may also include those focussing on reducing the potential for harm related to substance use, which is commonly referred to as 'harm reduction' services. Two high-quality reviews that assessed the impact of needle-and-syringe programs on reducing the prevalence of HIV and hepatitis C among people who inject drugs found these interventions to be effective.(30;36) One review also looked at the cost-effectiveness of these programs and determined that these interventions were cost-saving when compared to the cost of HIV treatment, however, mixed results were found regarding cost-savings for hepatitis C.(30) Behavioural-risk interventions, such as providing bleach, were also found to be effective.(30) In terms of equity considerations, family therapy and community reinforcement was effective in reducing harm in indigenous communities,(19) as was cognitive behavioural therapy.(19) Behavioural-risk interventions were particularly effective among ethnic minorities.(30)

A note of caution: some services were actually found to be harmful in some instances, such as school-based post-suicide interventions.(32)

A high-level summary of the reviews described here is provided in Table 5. For those who want to know more about the systematic reviews contained in Table 5 (or obtain citations for the reviews), a fuller description of the systematic reviews is provided in Appendices A1 and B1.
.

Table 5: High-level summary of evidence on effectiveness from systematic reviews relevant to Element 1 – Defining the basket of services for the general population and those at risk of mental health and/or substance use problems

Category of service	Intervention	What works (and what doesn't)			What's included?	
		In general	For people with co-morbidity	For other groups	Services currently provided in Ontario	Services included in other jurisdictions
Mental health promotion						
• Stigma reduction	Anti-stigma training and workshops	Effective (high Q)(19;31;37)			Yes, selectively	SE LHIN
	Mass media campaigns	Uncertain (high Q)(17)				
• Befriending services	Befriending	Somewhat effective (high Q)(18)				
• Suicide awareness	Media campaigns	Uncertain (med Q)(21;33)			Yes, selectively	SE LHIN
• Promoting well-being at the workplace	Physical activity	Somewhat effective (med Q)(21)				
Mental illness and addictions prevention						
• Suicide prevention	Education and training	Somewhat effective (med Q)(25;38)			Yes, selectively	Children; SE LHIN
	Gatekeeper training	Effective (med Q)(24;38-39)		Effective in indigenous communities(39)		
	Institutional policies	Effective (med Q)(24;38)				
	Family intervention	Not effective (med Q)(40)				
	Emergency access	Not effective (med Q)(40)				
	Brief intervention (contact)	Not effective (med Q)(41)				
	Cognitive behavioural therapy	Effective (med Q)(40)				
• Workplace depression screening	Screening, delivery of results and referral	Uncertain (med Q)(27)				
• Screening for alcohol misuse in primary care	Screening and brief intervention	Effective (high Q)(35)				
• Harm reduction	Needle and syringe exchange	Effective (high Q)(36;42)			Yes, selectively	SE LHIN; Alberta
	Family therapy and community reinforcement			Effective in indigenous communities (med Q)(29)		
	Cognitive behavioural therapy			Effective in indigenous communities (med		

Category of service	Intervention	What works (and what doesn't)			What's included?	
		In general	For people with co-morbidity	For other groups	Services currently provided in Ontario	Services included in other jurisdictions
				Q)(29)		
	Managed alcohol	Uncertain (high Q)(43)				
	Interventions to reduce behavioural risk (education; providing condoms; providing bleach; self-management)	Effective (med Q)(42)		More effective among ethnic minorities (med Q)		
• Outreach	Post-suicide onsite outreach	Effective (med Q)(22)			Yes, selectively	SE LHIN
	School-based post-suicide intervention	Somewhat harmful (med Q)(22)				
	Gatekeeper referrals	Effective for select populations (low Q)(44)				

Turning to cost-effectiveness analyses that compare options within a broad category of interventions, we identified one high-quality review that found mixed results for the cost-effectiveness of befriending interventions.(18)

Element 2 – Defining the basket of services for those with mild to moderate mental health and/or substance use problems

The second element moves further along the continuum of needs and focuses on mental health and addictions services geared towards those with mild to moderate mental health and/or substance use problems. Whereas element 1 focuses on the general population and those who may be at risk, element 2 is focused on individuals who are currently experiencing some mental health and/or substance use problems. This group may include individuals whose mental health and/or substance use needs are just emerging or are changing, as well as for those who have established problems but do not require intensive supports. Such service recipients may not have a diagnosis of a mental illness or addictions.

The key informants we interviewed during the preparation of this evidence brief repeatedly mentioned that the current publicly funded system does not adequately cater to individuals with these needs, and that gaps in services often lead individuals with mild to moderate challenges to wait until these progress into acute, severe or persistent challenges. Furthermore, some of these services are currently available only through private-insurance coverage (and even then the number of service units may be restricted) or out-of-pocket payments, and those that are funded publicly often have lengthy waiting lists. The services we included in our search targeting those with mild to moderate mental health and/or substance use problems include:

- crisis services, namely:
  - crisis intervention and suicide, and
  - mobile crisis response services;
- early identification and information/referral, namely:
  - community service information and referral,

  - initial screening and brief assessments, and
  - self-help resources;
- counselling and treatment, namely:
  - counselling,
  - community treatment, and
  - brief intervention;
- specialized consultation, assessment and treatment, namely:
  - internet, gaming disorders and problem gambling services, and
  - eating disorder programs and community treatment;
- psychosocial interventions, namely:
  - family interventions,
  - social skills training,
  - psychosocial education and skills-based training, and
  - psychosocial rehabilitation; and
- self-management and support group, namely:
  - self-management, and
  - peer-run support groups.

Once again, it is important to reiterate that many service recipients may require some of these services based on their needs at some point during their life. For example, these services could be appropriate for individuals experiencing, or recovering from, acute episodes, or for those no longer requiring intensive treatment but where some services are still needed to support recovery. The way in which these services are implemented and the guidelines and eligibility that are defined for their use will be important in determining how flexible these boundaries will be.

Crisis services

Crisis intervention services provide an alternative to emergency department visits and hospital admissions. One high-quality review found that short-term crisis intervention services were effective at reducing hospital admissions and improving the overall mental state of service recipients, as well as their satisfaction with services.(45) Crisis services also had promising effects when targeted to older adults, although no definitive conclusions could be drawn.(46) Our search did not find reviews that addressed other forms of crisis services.

Early identification and information and referral

Although it is logical to assume that three steps identifying mental health and/or substance use problems early, providing information about problems and referring when appropriate to services are important features of any health system, the systematic review-level evidence is inconclusive in this area.(47) Some of this challenge is due to the range of tools and approaches being used, and to variability in what people are being screened for.

Self-help

There are, however, several reviews that focus on self-help interventions with promising conclusions. In general, self-help interventions come in a wide array of forms, such as web-based, media-delivered and 'app' based, among others. They may be 'stand-alone' interventions or include a guided or facilitated component by a trained individual.(48) They have been designed to address a range of mental health and/or substance use problems including, but not limited to, alcohol use, anxiety, depression and psychotic disorders. Overall, most of these reviews point to self-help interventions as being effective, although there remains some debate as to whether they are as effective as face-to-face interventions delivered by a therapist.(49-50) Self-help interventions delivered via multi-media and the web may also be an effective tool to provide some level of support while individuals wait for face-to-face services with a therapist.(51) Self-help also seems to be effective in the youth population based on a high-quality review.(52) Mental health and substance use apps are a relatively new phenomenon and the evidence is still emerging, making it difficult to draw any firm conclusions.(53)

Counselling and therapy

Several key informants suggested that this category was very broad in terms of the large number of services that could be identified, such as cognitive behavioural therapy (CBT), motivational interviewing (MI), and dialectical behavioural therapy (DBT) and their variants, which are the most common and well-established therapies. However, some of the key informants cautioned that unless these therapies are delivered by people who are adequately trained and supervised, and fidelity to the practices monitored over time, individuals receiving services may not receive their full benefits. Overall, the systematic review-level evidence retrieved through our search identified CBT as being an effective therapy for a range of conditions,(54-56) including for group-based modes of delivery,(54) and when delivered online but with therapist support.(57). MI was also found to be effective, particularly for populations who are experiencing problematic substance use, and for youth.(51) Other forms of psychological therapy, including problem-solving therapy and interpersonal psychotherapy, have some evidence of effectiveness,(47) although no effects were found for supportive therapy.(49)

It is also important to note that the settings for counselling and therapy can range from at home (through outreach and mobile models of care), in the community, in primary-care settings or in hospital. Various types of psychotherapy delivered in the community have been found to safely reduce depressive symptoms in older adults with sub-threshold depression.(58) Community-based programs were also associated with positive outcomes in youth with anxiety and depression, based on a medium-quality review.(59) Ensuring these services are culturally appropriate is also important. For example, a medium-quality review found that adapting guidelines for community treatment of depression and anxiety to be more culturally sensitive increased their effectiveness among ethnic minorities.(60) Furthermore, community-based alcohol and substance abuse treatment programs, when adapted to culturally accepted norms, were found to be effective alternatives to traditional approaches for indigenous communities.(24) Thus, our search found some evidence for the effectiveness of services delivered in community settings, although many of the other reviews cited in this evidence brief address services that are normally provided in community settings anyways.

There is an emerging body of systematic review-level evidence that finds brief interventions are effective in addressing substance use problems. Several reviews noted the effectiveness of brief interventions on alcohol use in different settings and for different populations.(56-58) Furthermore, brief interventions seem to work well for emerging adults,(61) as well as when they are delivered using technology.(78)

Finally, family therapy, which includes family counselling, educational groups for relatives, and concurrent individual and family counselling, is effective, based on a medium-quality review.(50) There is also evidence for its effects in indigenous communities, as well as in young and marginalized populations.(19)

Specialized consultation, assessment and treatment

While it is not possible to succinctly summarize the specific findings relating to each specific type of mental health and/or substance use problem, certain areas of mental health have developed quite separate streams of services in Ontario. Two examples of this include gambling (including internet gambling and problem gambling services) and eating disorders (including, most commonly, anorexia and bulimia). Our search identified cognitive behavioural therapy and motivational interviewing as effective approaches to care for internet gaming and problem gambling based on a high-quality review.(62) Cognitive behavioural therapy was also effective for eating disorders,(63) although it is unclear whether group-based cognitive behavioural therapy (63) or therapy provided via the internet (61) have the same benefits.

Psychosocial interventions

Psychosocial interventions may include services such as social-skills training, psychosocial education and skills-based training, and psychosocial rehabilitation. There is limited systematic review-level evidence available related to many of these services. Social-skills training may have important benefits for individuals experiencing schizophrenia and other major mental illnesses. One medium-quality review found that such training improved various aspects of the negative symptoms and psychosocial functions among individuals

experiencing schizophrenia.(64) However, another high-quality review that focused on life-skills training found no significant difference in performance of skills or quality-of-life outcomes.(65)

Self-management and support groups

The systematic review-level evidence retrieved concerning self-management focused on services and supports that help people manage their day-to-day lives. Self-management does show evidence of effectiveness for individuals with serious mental illness, with specific improvements in medication adherence and reductions in re-hospitalization and psychiatric symptom severity, among other effects.(66) However, the evidence for its effectiveness when delivered as part of an integrated care model is less definitive.(67)

The evidence for peer-run support groups suggests that the benefits vary with the level of involvement and the type of problem. The more engaged people were with peer support, the more they benefited, and the effects were stronger when the individuals attending were experiencing depression or anxiety, and were less strong when people attended for bereavement.(68) As noted by some of our key informants, there has tended to be less research conducted on peer-run services than some of the more traditional medically (or more generally professionally) driven services, leading to less available systematic review-level evidence.

A high level summary table of the reviews described here is provided in Table 6. For those who want to know more about the systematic reviews contained in Table 6 (or obtain citations for the reviews), a fuller description of the systematic reviews is provided in Appendices A2 and B2.

Table 6: High-level summary of evidence of effectiveness from systematic review relevant to Element 2 – Defining the basket of services for those with mild to moderate mental health and/or substance use problems

Category of service	Intervention	What works (and what doesn't)			What's included?	
		In general	For people with co-morbidity	For other groups	Services currently provided in Ontario	Services included in other jurisdictions
Crisis intervention						
• Crisis intervention	Short-term crisis intervention (immediate assessment, identification and brief intervention)	Effective (high Q)(45;47)			Yes	Children; SE LHIN; Alberta
• Mobile crisis response teams	Multidisciplinary teams responding to crises in community settings	Uncertain (high Q)(46)			Yes, selectively	SE LHIN
• Emergency psychiatry		No reviews identified			Yes, selectively	SE LHIN
• Short-term assessment and treatment		No reviews identified			Yes	SE LHIN
• Short-term crisis support beds		No reviews identified			Yes	SE LHIN
Early identification and information and referral						
• Community service information	Online health communities	Uncertain (low Q)(69)			Yes, selectively	Alberta
• Centralized access/intake		No reviews identified			Yes, selectively	SE LHIN
• Initial screening, brief assessment and referral	Screening for drug use	Somewhat effective (high Q)(61;70)			No	Alberta
	Screening, brief intervention and referral to treatment	Effective for select populations (low Q)(71)				
• Client navigation services		No reviews identified			No	
Self-help resources						
• Self-help resources	Self-help apps	Uncertain (low Q)(28;53)			Yes	Alberta
	Online cognitive behavioural therapy	Somewhat effective (med Q)(50-51;72)				
	Written cognitive behavioural therapy	Somewhat effective (high Q)(48)				
	Guided self-help	Effective (high Q)(48)				
Counselling and therapy						
• Counselling and treatment	Cognitive behavioural therapy	Effective (high Q) (55;57;73-75)			Yes	Children; SE LHIN; and Alberta
	Group cognitive behavioural therapy	Effective (high Q)(54)				

Category of service	Intervention	What works (and what doesn't)			What's included?	
		In general	For people with co-morbidity	For other groups	Services currently provided in Ontario	Services included in other jurisdictions
	Motivational interviewing	Effective (high Q)(76)				
	Problem-solving therapy	Somewhat effective (high Q)(56)				
	Interpersonal psycho-therapy	Somewhat effective (high Q)(56)				
	Supportive therapy	Not effective for select populations (high Q)(77)				
• Community treatment	Adapting guidelines to be culturally sensitive			Effective for minority populations (med Q)(60)	Yes, selectively	Children; SE LHIN; and Alberta
	Community-based alcohol programs			Effective in indigenous communities (med Q)(78)		
	Stepped care	Effective for select populations (med Q)(58)				
	Cognitive behavioural therapy	Effective (med Q)(59)				
• Brief interventions	Technology-delivered brief interventions	Effective for select populations (med Q)(79)			Yes, selectively	Children
	Brief motivational interviewing	Effective for select populations (med Q)(80-82)				
• Family interventions	Family therapy (family counseling, educational groups for relatives, and concurrent family and individual counselling)	Effective (med Q)(83)		Effective for indigenous communities and among young and marginalized populations (med Q)(29)	Yes, selectively	Children; Alberta
Specialized consultation, assessment and treatment						
• Internet gaming disorders and problem gambling services	Cognitive behavioural therapy	Effective (high Q)(62)			Yes	SE LHIN
	Motivational interviewing	Effective (high Q)(62)				
	Integrative therapy	Not effective (high Q)(62)				
• Eating disorder programs and community therapy	Cognitive behavioural therapy	Effective (high Q)(84)			Yes, selectively	SE LHIN
	Group cognitive behavioural therapy	Uncertain (high Q)(52)				
	Internet cognitive behavioural therapy	Somewhat effective (med Q)(63)				
Psychosocial interventions						
• Social skills training	Social skills instruction, modelling and feedback	Effective for select populations (med			Yes, selectively	Alberta

Category of service	Intervention	What works (and what doesn't)			What's included?	
		In general	For people with co-morbidity	For other groups	Services currently provided in Ontario	Services included in other jurisdictions
		Q)(64)				
• Employment support	Supportive employment services	Effective (high Q)(85)		Less effective for minority populations (high Q)(85)	Yes, selectively	SE LHIN; Alberta
• Psychosocial education and skills-based training	Life-skills program	Not effective for select populations (high Q)(65)			Yes, selectively	SE LHIN
Self-management and support groups						
• Self-management	Self-management program (medication management, recognition of early signs of relapse, coping skills for persistent symptoms)	Effective for select populations (high Q)(66)			Yes, selectively	SE LHIN
	Self management as part of an integrated model	Uncertain (med Q)(67)				
• Peer support groups	Mutual self-help groups	Somewhat effective for select populations (med Q)(68)			Yes, selectively	SE LEHIN
• Indigenous support groups/elders	Indigenous support groups/elders	No reviews identified			No	SE LHIN

Element 3 – Defining the basket of services for those with severe and persistent mental illness and/or addictions

The third element once again moves along the continuum of need to focus on services supporting individuals experiencing severe and persistent mental illness and/or addictions. Individuals with needs that require this level of support have often (but not always) been diagnosed with a mental illness and/or addictions using the DSM V criteria or similar diagnostic instruments. Some key informants noted that these services can be the most costly per individual served, and some may be effective but too costly to implement as a broadly available service (for example, one key informant noted that some forms of employment supports may fall into this category). However, others identified that costs need to be considered in relation to outcomes, and that many of these services can provide better social outcomes and cost savings when a societal perspective is taken in value-for-money considerations. The fluidity of symptoms and the ability of individuals to recover and manage their illnesses means that this level of service is often not needed over the long term, and individuals may then move to needs that are more aligned with element 1 or 2. In general, these services tend to be delivered in more structured settings and with more complex or multi-layered approaches, including multiple service providers and combinations of psychological and/or pharmaceutical interventions. However, in some of the service areas, there was a large degree of overlap with element 2, so what is presented in the narrative below are additional reviews, with areas featuring large amounts of overlap specifically noted.

The services we included in this search were:

- crisis services (same as for element 2), namely:
  - crisis intervention,
  - mobile crisis response services.
  - emergency psychiatry,
  - short-term assessment and treatment, and
  - short-term crisis support beds;
- intensive treatment services, namely:
  - early psychosis intervention,
  - psychiatric treatment,
  - primary day/night care,
  - assertive community treatment,
  - intensive case management,
  - withdrawal management,
  - intensive harm reduction and relapse prevention, and
  - concurrent disorder treatment;
- intensive therapies, namely:
  - cognitive behavioural therapy,
  - pharmacological therapies, and
  - deep brain stimulation;
- specialized consultation, assessment and treatment (same as for element 2), namely:
  - internet, gaming disorders and problem gambling services,
  - inpatient hospital programs and services, and
  - case management services;
- peer support services, namely:
  - hospital transition support,
  - family initiatives, and
  - indigenous support groups/elders;
- transition services, namely:
  - transition from acute care to the community, and
  - social recovery;
- social determinants support services, namely:

  - clubhouse (multi-service psychosocial intervention),
  - Ontario Disability Support Program, Ontario Works and Canada Pension Plan advocacy,
  - rent supplements,
  - transitional housing,
  - long-term supportive housing,
  - addictions supportive housing,
  - social rehabilitation and recreation, and
  - vocational and employment services; and
- justice-related services, namely:
  - mobile crisis intervention teams (including police),
  - diversion and court support,
  - mandated impaired driver support services ('Back on Track'),
  - court supervised addictions treatment, and
  - forensic services.

Crisis services

These findings are covered as part of element 2.

Intensive treatment services

There is a wide range of available services that provide intensive treatment for mental illness and/or addictions.

Alternatives to inpatient treatment have also been explored and service models such as day treatment hospitals have been developed. One high-quality systematic review found day hospital care to be as effective as inpatient care for people experiencing acute psychiatric disorders, with no differences observed between days lost to follow-up or re-admission after discharge.(86) Another high-quality review found day hospital treatment resulted in less time spent in inpatient care when compared to outpatient appointments, although the diversity of studies prevents definitive conclusions.(87)

Assertive community treatment (ACT) involves a team of professionals who provide intensive treatment, rehabilitation and support for individuals experiencing a serious mental illness and who find it challenging to engage with other mental health services. One high-quality systematic review (completed in 2007) found that compared to standard treatment, ACT demonstrated a significant reduction in homelessness and improvement in psychiatric symptoms, but no differences in hospitalization outcomes.(88) However, one of the challenges with ACT and other intensive models, and a consideration for the basket of services, is that they can be difficult to provide with fidelity in rural or remote areas, although there is some evidence that ACT may be more feasible than other forms of intensive services in rural settings. However, there is concern that the adaptations that are often made to ACT to accommodate rural settings may reduce the model's overall effectiveness.(89) Another medium-quality review found that several intensive case-management models, including ACT, assertive outreach and intensive case management, when compared to hospital care, were more effective at reducing length of hospitalization and retention in care for individuals with serious mental illnesses.(90)

Intensive case management (ICM) is another form of intensive treatment characterized by smaller caseloads and an intensive brokering approach to ensuring each client has the services and supports they need. ICM, when compared to standard community care, significantly reduces the length of hospitalization and keeps people engaged with services, based on a medium-quality systematic review. However, the evidence was equivocal for the effects of ICM on other health and wellness outcomes, such as service use, quality of life and costs, among others.(90)

Individuals experiencing a mental illness and/or addictions also sometimes require intensive community supports in the form of harm reduction and relapse prevention. The systematic review-level evidence for several types of harm reduction is inconclusive, including computerized cognitive behavioural therapy (86)

and a 10-step program for 'beating the blues.'(87) However, combined antidepressants and psychological therapy was demonstrated to be effective for older adults.(87)

Individuals experiencing a mental illness tend to have higher rates of concurrent substance misuse or addictions problems. Likewise, people with addictions tend to have higher rates of concurrent mental health problems.(91) In Ontario, we call these 'concurrent disorders.' Thus, services targeting individuals experiencing concurrent disorders could be an important consideration for the basket of services. One high-quality systematic review (completed in 2004) examined the efficacy of antidepressants in treating individuals with comorbid substance use disorders and depression, finding a modest effect of antidepressants and concluding that antidepressants may be an important part of treatment for individuals experiencing concurrent disorders, but that people must also receive supports that specifically address substance use.(92) Another high-quality review examined the effectiveness of a wide range of psychosocial interventions for individuals experiencing concurrent disorders of all types. They could not find evidence to support one treatment type over another to reduce substance use and/or to improve mental state, or to remain in treatment.(93)

Case management services

Case management services are often offered as "stand alone" services or as part of other services for those will mental illness and/or addictions. One high-quality systematic review (conducted in 2007) found that case management did not have an effect on reducing the use of illicit drugs among substance users.(94) However, when combined with other treatment services, case management had a moderate effect on reducing substance use.(94) The same review also found that case management was effective at improving mental health, use of services, and the overall health of homeless people with HIV.(94)

Intensive therapies

Although there is overlap with the 'counselling and therapies' section of element 2, it is important to understand the effectiveness of these therapies for the level of need experienced by those with serious and persistent mental illness. Most of the high-quality reviews retrieved focused on anxiety and depression, although there was one review focussing on schizophrenia and another on cannabis use. Furthermore, many of the reviews focused on CBT and compared it to other forms of treatment. From the nine reviews retrieved in our search, there was evidence of effectiveness for CBT,(92,93,95,109) and when CBT was combined with antidepressants.(94) One of these reviews in particular focused on the effects of CBT on cannabis use.(93) Second-generation antidepressants alone also had some evidence of effectiveness, although the effect was not as strong.(94) Effects of transcranial magnetic stimulation for treatment-resistant depression are uncertain.(110-112) Dialectical behavioural therapy has also been demonstrated to be effective for individuals diagnosed with a borderline personality disorder.(113)

Specialized consultation, assessment and treatment

This evidence was covered in element 2.

Transition services

When a person experiences a transition across services and sectors, there is a risk that they may 'fall through the cracks' and miss the opportunity to benefit from the service on the 'other side' of the transition. There are many different types of transitions. For the purpose of this evidence brief, we focused on services and supports for emerging adults who may be transitioning from child and adolescent services to adult services, and for transitions from acute care to the community. In terms of transitional programs for youth, a systematic review of medium quality found that services that focus on individualized assessments and a lifespan approach, and that included social, educational, occupational, behavioural and cognitive interventions aimed at long-term recovery, were the most effective.(95). Given the heterogeneity of the included studies, it was not possible to pool the findings in a meaningful way.(95)

Acute care-to-community transitions are also key. Although the systematic reviews retrieved were mainly of low quality, they all found transitional services and planning were effective.(97-100) Keeping the length of the

hospital stay short,(97) providing acute continuous day hospital options,(99) adopting effective discharge planning (98) including pre-discharge needs assessment,(100) providing pre- and post- discharge psychoeducation,(100) having transitional managers,(100) using assertive outreach care,(99) and providing acute home services (99) were all found to be effective approaches in supporting these transitions.

Social determinant support services

Since people experiencing mental illness and/or addictions risk marginalization, stigmatization and other negative effects, services that address the social determinants of mental health are a particularly important support for recovery. Several key informants highlighted social determinants as the most urgent to address. Housing supports are one of the most salient of these. Permanent housing has been demonstrated to be effective at keeping individuals with serious mental illness housed, as well as achieve positive impacts on their mental well-being,(83, 114, 115) although the provision of housing during discharge planning demonstrated mixed effects.(101)

Of course, it is not just health-related outcomes that people experiencing severe and persistent mental illness and/or addictions are striving toward. As with all people, having a life that includes a strong social network and engaging in a variety of meaningful activities is critical to recovery. One medium-quality systematic review found that social-skills training for individuals with schizophrenia had a large effect on the content mastery of skills, moderate effects on social and daily living skills, community functioning and negative symptoms, and a small effect for other symptoms and relapse, when compared to control groups.(64) Furthermore, peer support offered through group mutual-help sessions were found to improve mental health outcomes among individuals with chronic mental illness, in a systematic review of medium quality, although mixed results were reported for depression, anxiety and bereavement.(68)

Justice-related services

While the vast majority of individuals with mental illness or addictions will not come into contact with the criminal justice system, the two systems are closely related and special consideration is needed to understand what is most effective in supporting those with mental illness or addictions when they do come into contact with the justice system. For example, Back on Track driving programs have been demonstrated to be effective in reducing recidivism for individuals who have been charged with substance use-related offenses.(104) There is also some evidence that fines and mandatory licence withdrawals are also effective in this regard.(104) However, our search retrieved no systematic reviews related to court diversion and support.

For individuals with mental illness who have been convicted of violent behaviours, one high-quality systematic review found that CBT and other psychological therapies had a positive effect on reducing violent behaviour, as did the use of atypical antipsychotic drugs.(96)

A summary of the key findings from the synthesized research evidence is provided in Table 7. For those who want to know more about the systematic reviews contained in Table 7 (or obtain citations for the reviews), a fuller description of the systematic reviews is provided in Appendices A3 and B3.

Table 7: High-level summary of key findings from systematic reviews relevant to Element 3 – Defining the basket of services for those with severe and persistent mental illness and/or addictions

Category of service	Intervention	What works (and what doesn't)			What's included?	
		In general	For people with co-morbidity	For other groups	Services currently provided in Ontario	Services available in other jurisdictions
Crisis services						
• Crisis intervention	See element 2					
Intensive treatments						
• Early intervention for psychosis	Cognitive behavioural therapy	Not effective (high Q)(75)			Yes	Children; SE LHIN
	Pharmaceutical therapy (risperidone and olanzapine)	Not effective (high Q)(75)				
	Combined cognitive behavioural therapy and risperidone	Effective (high Q)(75)				
	Omega-3	Somewhat effective (high Q)(75)				
	Phase specific treatment	Not effective (high Q)(75)				
	Training to recognize early warning signs	Somewhat effective (high Q)(86)				
• Primary day/night care	Day hospital treatment (psychoanalytic psychotherapy, expressive therapy, community meetings and education)	Effective (high Q) (87;97)			Yes, selectively	Children; SE LHIN
• Assertive community treatment	Assertive community treatment	Effective (med Q) (88-89)		Effective in rural communities (med Q)(89)	Yes	SE LHIN; Alberta
• Intensive case management	Combined case management and assertive community treatment	Somewhat effective (med Q)(90)			Yes, selectively	SE LHIN
• Intensive harm reduction and relapse prevention	Computerized cognitive behavioural therapy	Uncertain (high Q)(98)			Yes, selectively	
	Ten step beating the blues program	Uncertain (high Q)(99)				
	Collaborative care	Not effective in select populations (high Q) (100)				
	Combined antidepressants and psychological therapy	Effective for select populations (high Q)(99)				
• Withdrawal management	Combined psychological and pharmacological therapies	Effective (high Q)(101)			Yes, selectively	SE LHIN
	Magnesium treatment	Uncertain (high Q)(102)				

Category of service	Intervention	What works (and what doesn't)			What's included?	
		In general	For people with co-morbidity	For other groups	Services currently provided in Ontario	Services available in other jurisdictions
	Benzodiazepines	Not effective (high Q)(103)				
• Concurrent disorder treatment	Antidepressants	Effective in select populations (high Q)(92)			Yes, selectively	SE LHIN
	Integrated case management	Not effective in select populations (high Q)(93)				
	Combined cognitive behavioural therapy and motivation interviewing	Not effective in select populations (high Q)(93)				
	Cognitive behavioural therapy	Not effective in select populations (high Q)(93)				
	Motivational interviewing	Uncertain (high Q)(93)				
Case management						
• Case management	Case management	Not effective for select populations (high Q)(94)			Yes	SE LHIN
	Combined case management, assertive community treatment and assertive outreach	Effective (med Q)(104)				
Intensive therapies						
• Cognitive behavioural therapy	Cognitive therapy; psychoeducation; and behavioural activation training	Effective (high Q) (105-108)			Yes	
• Second generation antidepressants	Selective serotonin reuptake inhibitors	Somewhat effective (high Q)(109)			Yes, selectively	
• Combined therapy	Cognitive behavioural therapy and second generation antidepressants	Effective for select populations (high Q)(109)			Yes, selectively	
• Transcranial magnetic stimulation	Repeat transcranial magnetic stimulation	Uncertain (high Q)(110-112)			Yes, selectively	
• Dialectic behavioural therapy	Dialectic behavioural therapy	Effective for select populations (high Q)(113)			Yes	
Transition services						
• Transitions from youth to adult services	Transition interventions (wrap around, cross-system provider communication, collaborative care planning)	Effective (med Q)(95)			No	

Category of service	Intervention	What works (and what doesn't)			What's included?	
		In general	For people with co-morbidity	For other groups	Services currently provided in Ontario	Services available in other jurisdictions
• Transition from acute care to the community	Length of hospital stay (short stay)	Effective (high Q)(114)			Yes, selectively	SE LHIN
	Discharge planning	Effective (med Q)(115)				
	Acute continuous day hospital	Effective (low Q)(116)				
	Assertive outreach care	Effective (low Q)(116)				
	Acute home services	Effective (low Q)(116)				
	Pre- and post-discharge psychoeducation	Effective (low Q)(117)				
	Pre-discharge needs assessment	Effective (low Q)(117)				
	Transition managers	Effective (low Q)(117)				
	Inpatient/outpatient communication	Effective (low Q)(117)				
Social determinants support						
• Clubhouse	Clubhouse	No reviews identified			Yes, selectively	
• Housing support	Permanent housing	Effective (med Q) (88;118-119)			Yes, selectively	SE LHIN
	Provision of housing during discharge planning	Uncertain (high Q) (120)				
• ODSP, OW and CPP advocacy	ODSP, OW and CPP advocacy	No reviews identified			No	SE LHIN
• Social recovery and rehabilitation	Social skills training	Effective for select populations (med Q)(64)			Yes, selectively	SE LHIN; Alberta
• Peer support	Group help sessions	Effective for select populations (med Q)(68)			Yes, selectively	
• Vocational and employment services	See element 2				Yes, selectively	SE LHIN
Justice related services						
• Diversion and court support	Diversion and court support	No reviews identified			Yes, selectively	SE LHIN
• Back-on-track	Combined education and motivational intervention	Effective (med Q)(121)			Yes, selectively	
	Intensive supervision services	Uncertain (med Q) (121)				
	Driving under the influence courts	Uncertain (med Q) (121)				
	Fines and mandatory licence withdrawals	Effective (med Q)(121)				
• Forensic services	Forensic services	No reviews identified			Yes, selectively	SE LHIN

IMPLEMENTATION CONSIDERATIONS

A number of barriers might hinder the implementation of the core basket of mental health and addictions services, which need to be factored into any decision about whether and how to pursue the implementation of this approach (Table 8). These barriers exist at several levels including: service recipient/individual, care provider, organization and system. Many of the key informants we interviewed suggested that, while it is important to deliberate carefully about what services will be included in the basket of core services and to consider needs when doing so, it is even more critical to plan thoughtfully how such a basket would be implemented. Implementation was where they felt the most difficulties might lie, but also where the greatest potential for improvement could be realized.

At the individual level, service recipients may be currently using particular services that may not be included in the core basket. They may resist the loss of services they value, and if they're unsuccessful in making their case it could have impacts on their future engagement with the system and their personal recovery journey. Relatedly, individuals who are currently receiving services at a high intensity or acuity may initially resist a transition away from acute care to more upstream approaches. Additionally, as one reviewer noted, if the services in the core basket are not easy enough to navigate, with clear pathways and transitions, service recipients may not be able to find the exit and risk being 'trapped in the system.'

At the care-provider level, providers may resist the loss of services they feel competent to provide. This may be an ongoing problem that must be addressed each time the core basket is reviewed and new service mixes considered. Providers that are currently working in the privately funded system may also resist shifts toward public coverage of the services they provide, as this may threaten their client base and income stream. Additionally, unregulated workers may have to upgrade their skills and qualifications in order to deliver the services in the core basket and be hired by organizations to do so, which may mean becoming part of a regulated profession. Shifts toward more non-physician led services delivered in community settings may create tensions between professional groups, and may result in the mobilization of powerful professional associations to protect their interests and authority.

At the organizational level, some of the organizations currently providing services in Ontario's mental health and addictions system may resist the loss of services that constitute a large share of the organizations' work. Once again, this barrier will likely be an issue each time the basket of core services is revisited. On the other hand, some organizations may be faced with increased demand for certain services, putting pressure on them to find appropriately skilled and trained staff to provide services, and putting strain on organizational budgets to manage the increases in a way that still allows for services to be delivered in a timely fashion. Organizations that currently provide only mental health or addictions services may be forced to retrain staff in order to provide services to address concurrent disorders. Additional demands may also be placed on organizations to collect, synthesize and report data, demonstrate service outcomes, and become more skilled at continuously improving the quality of their services. This requires financial resources and potentially new or enhanced organizational capacities. Finally, organizations may be expected to forge new partnerships with other organizations that provide complementary services in order to create new service pathways. This may call for shifts in the type of organizational leadership that is most effective, and could represent a threat to current leaders.

At the systems level, introducing a basket of core services, which represents a significant change in the system, must be accompanied by appropriate changes to delivery, financial and governance arrangements to ensure that services are getting to those who need them most. Reallocating funding toward the new core services and determining the levels required of each service type will be challenging given the limited province-wide data available to support these decisions, the lack of infrastructure to support the measurement of outcomes, and the timelines needed to make adjustments to the supply of care providers. A shift toward ensuring those with mild to moderate mental health and/or substance use problems are well served by including these services as part of the core basket may put pressure on the government in terms of what it

can afford, especially given that this group comprises the largest number of those with identified mental health or substance use concerns. This was reinforced by one of the key informants who identified adequate funding as already a real challenge in the current system, and who noted that service recipients are currently waiting over a year for some psychological therapies, and much longer for services such as supportive housing. As well, thought needs to be given toward putting into place a mechanism or body to oversee and be accountable for the implementation of the basket of core services, or the process will lack the leadership needed to make the necessary changes. Finally, as many key informants and merit reviewers mentioned, defining a basket of core services and directing funding to those services may limit the ability of the system to foster emerging practices, new service models and other innovations.

It is important to note that the basket of core services will not be implemented in isolation. In fact, there will likely be several other changes rolling out concurrently from other initiatives being pursued by the Mental Health and Addictions Leadership Advisory Council. Multiple large-scale initiatives can create temporary instability in the system and also a risk that attention could be diverted from the implementation of the basket of core services, leaving the initiative to be realized on paper only with no real impact at the level of service provision. On top of the changes within the mental health and addictions system, other sweeping changes are underway to the health system in general. Perhaps most relevant is the pending 'Patients First' legislation,(122) which aims to realign community services and create sub-regions within each Local Health Integration Network. As one reviewer noted, this raises the question about the "level" of the system (LHIN, sub-LHIN or other) to which the basket of core services applies.

Table 8: Potential barriers to implementing a basket of core services approach to mental health and addictions services

Levels	Element 1 – Defining the basket of services for the general population and those at risk of mental health and/or substance use problems	Element 2 – Defining the basket of services for those with mild to moderate mental health and/or substance use problems	Element 3 – Defining the basket of services for those with severe and persistent mental illness and/or addictions
Patient/ Individual	• Service recipients may resist the loss of services they value	• Same as element 1, plus service recipients may become 'trapped' in the system if services are not sufficiently navigable with clear pathways and transitions	• Same as element 1, but with a greater challenge because these service recipients may have a long history of using the services
Care providers and teams	• Providers may resist the loss of services they feel competent to provide	• Same as element 1, plus providers currently working in the privately funded system may resist shifts to public coverage of the services they provide (because it threatens their client base and income stream)	• Same as element 1, plus unregulated workers may have to 'skill up' (academic upgrading) and become regulated professionals to provide some of these services • Also, professional associations may resist the shift to more non-physician led services delivered in community settings (outside of hospitals)
Organization	• Organizations may resist the loss of services that constitute a large share of the organization's work	• Same as element 1	• Same as element 1, plus organizations may not have the budgets to recruit a workforce that has the specialized competencies to provide some of these services or the scale to cross-train their workforce and increase concurrent disorder capacity
System	• Policymakers may not make the necessary changes to the delivery arrangements (e.g., because of the lack of	• Same as element 1, but with a greater challenge because of the greater costs associated with increasing investments in this	• Same as element 1, plus policymakers may be challenged by the degree of integration of mental health and addictions

	province-wide data to inform the process, the lack of infrastructure to support the measurement of outcomes or the timelines involved in making adjustments to the supply of providers), financial arrangements (e.g., because of the additional costs), and governance arrangements (e.g., because a mechanism or body is not put in place to oversee and be accountable for the implementation of the basket of core services) • Policymakers may resist losing the ability to flexibly foster emerging practices, new service models and other innovations	element	services required at this level to deal with complexity, severity and concurrent disorders with this population

There are also several potential windows of opportunity for implementing the basket of services approach at this time (Table 9). In general, there is currently significant government and stakeholder attention being given to mental health and addictions, and therefore support is likely to be garnered for actions that will address this issue in a way that provides good value for money. Also, significant progress has already been made in the child and youth mental health sector, including in defining the basket of core services. This means it will be a more familiar activity with an established implementation process that can be followed or modified as needed for adults. Additionally, there are some resources already identified. The 2015-2016 and 2016-2017 Ontario budgets have specified increased funding for mental health, primarily targeting the implementation of the comprehensive mental health strategy, of which this basket is part. Furthermore, other jurisdictions such as Alberta have recently undertaken an initiative to specify a set of core services and implement them across the province. This provides Ontario with an opportunity to learn from their experience while there is still institutional memory from which to draw. Finally, the Mental Health and Addictions Leadership Advisory Council is simultaneously undertaking efforts to address other issues pertaining to mental health and addictions in the province, which collectively could result in a comprehensive approach to system improvements so that more Ontarians get the services they need, when and where they need them. One merit reviewer noted, however, that these investments in infrastructure and services must continue for at least 10 years in order to see results at the systems level.

There have also been some targeted windows of opportunity relating to the elements identified in this brief. In relation to element 1, there have repeated calls in government and organizational reports to increase the availability and emphasis placed on mental health promotion, and on the prevention of mental health and/or substance use problems. In relation to element 3, there has also been a specific Ontario budget announcement for increased supportive housing units and housing spaces for people with mental health and substance use issues.

Table 9: Potential windows of opportunity for implementing the basket of services approach to mental health and addictions services

Type	Element 1 – Defining the basket of services for the general population and those at risk of mental health and/or substance use problems	Element 2 – Defining the basket of services for those with mild to moderate mental health and/or substance use problems	Element 3 – Defining the basket of services for those with severe and persistent mental illness and/or addictions
General	Significant government and stakeholder attention is being given to mental health and addictions Significant progress has already been made for the children and youth strategy, providing a familiar process of implementation to follow Ontario budgets for 2015-2016 and 2016-2017 provided increased funding for mental health, chiefly for the implementation of the comprehensive addictions and mental health strategy, of which this basket is a part Other jurisdictions (e.g., Alberta) have already undertaken a similar initiative, providing opportunities to learn from their experience Leadership Advisory Council is addressing the full spectrum of issues related to getting the right mix of services to those who need them		
Element-specific	Continued call in government reports and organizational reports to increase the availability and emphasis placed on promotion and prevention		Increased funding in budgets 2015/16 and 2016/17 for supportive housing units and housing spaces for people with mental health and addictions issues

REFERENCES

1. Ontario's Mental Health and Addictions Leadership Advisory Council. Better mental health means better health. Toronto: Mental Health and Addictions Leadership Advisory Council, 2010.
2. Centre for Addiction and Mental Health. Fact and fundng. 2016.
3. Legislative Assembly of Ontario. Select committee on mental health and addictions. 2010.
4. Government of Ontario. Open minds, healthy minds: Ontario's comprehensive mental health and addictions strategy: Government of Ontario, 2011.
5. Auditor General of Ontario. Child and youth mental health agencies: Follow-up on VFM section 3.04, 2008 annual report. Toronto: Government of Ontario, 2010.
6. Health Quality Ontario. Taking stock: A report on the quality of mental health and addictions services in Ontario. 2015.
7. Toronto Central Local Health Integration Network. Building an integrated access to care model. Toronto: Toronto Central Local Health Integration Network, 2014.
8. Network LHI. Map of Ontario's LHINs. 2016.
9. ConnexOntario. Mental health and addictions services. ConnexOntario; 2016.
10. Canadian Mental Health Association. Rural and Northern Community Issues in Mental Health, 2009.
11. Statistics Canada. Canadian community health survey: Mental health. 2012.
12. Guyatt G, Oxman A, Vist G, et al. GRADE: an emerging consensus on rating quality of evidence and strength of recommendation. *British Medical Journal* 2008; **336**: 924–26.
13. O'Hagan M, Cyr C, McKee H, Priest H. Making the Case for Peer Support. 2010.
14. Sunderland K, Mishkin W, Peer Leadership Group, Mental Health Commission of Canada. Guidelines for the practice and training of peer support. 2013.
15. Mental Health Commission of Canada, Centre for Addiction and Mental Health. Improving mental health services for immigrant, refugee, ethno-cultural and racialized groups: Issues and options for service improvement. 2009.
16. Krunnick J, Sotsky S, Simmens S, et al. The role of therapeutic alliance in psychotherapy and pharmacoptherapy outcome: Findings in the National Institute of Mental Health Treatment of Depression Collaborative Research Program. *Journal of Consulting and Clinical Psychology* 1996; **64**(3): 532-9.
17. Clement S, Lassman F, Barley E, et al. Mass media interventions for reducing mental health-related stigma. *Cochrane Database Syst Rev* 2013; **7**: Cd009453.
18. Mead N, Lester H, Chew-Graham C, Gask L, Bower P. Effects of befriending on depressive symptoms and distress: systematic review and meta-analysis. *Br J Psychiatry* 2010; **196**(2): 96-101.
19. Hanisch SE, Twomey CD, Szeto AC, Birner UW, Nowak D, Sabariego C. The effectiveness of interventions targeting the stigma of mental illness at the workplace: a systematic review. *BMC Psychiatry* 2016; **16**: 1.
20. Enns J, Holmqvist M, Wener P, et al. Mapping interventions that promote mental health in the general population: A scoping review of reviews. *Prev Med* 2016; **87**: 70-80.

21. Chu AH, Koh D, Moy FM, Muller-Riemenschneider F. Do workplace physical activity interventions improve mental health outcomes? *Occup Med (Lond)* 2014; **64**(4): 235-45.

22. Szumilas M, Kutcher S. Post-suicide intervention programs: a systematic review. *Can J Public Health* 2011; **102**(1): 18-29.

23. Harlow AF, Bohanna I, Clough A. A systematic review of evaluated suicide prevention programs targeting indigenous youth. *Crisis* 2014; **35**(5): 310-21.

24. Clifford AC, Doran CM, Tsey K. A systematic review of suicide prevention interventions targeting indigenous peoples in Australia, United States, Canada and New Zealand. *BMC Public Health* 2013; **13**: 463.

25. Milner A, Page K, Spencer-Thomas S, Lamotagne AD. Workplace suicide prevention: a systematic review of published and unpublished activities. *Health Promot Int* 2015; **30**(1): 29-37.

26. Furlan AD, Gnam WH, Carnide N, et al. Systematic review of intervention practices for depression in the workplace. *J Occup Rehabil* 2012; **22**(3): 312-21.

27. Dietrich S, Deckert S, Ceynowa M, Hegerl U, Stengler K. Depression in the workplace: a systematic review of evidence-based prevention strategies. *Int Arch Occup Environ Health* 2012; **85**(1): 1-11.

28. Nicholas J, Larsen ME, Proudfoot J, Christensen H. Mobile Apps for Bipolar Disorder: A Systematic Review of Features and Content Quality. *J Med Internet Res* 2015; **17**(8): e198.

29. Calabria B, Clifford A, Shakeshaft AP, Doran CM. A systematic review of family-based interventions targeting alcohol misuse and their potential to reduce alcohol-related harm in indigenous communities. *J Stud Alcohol Drugs* 2012; **73**(3): 477-88.

30. Jones L, Pickering L, Sumnall H, McVeigh J, Bellis MA. A review of the effectiveness and cost-effectiveness of needle and syringe programmes for injecting drug users (Report). Liverpool, UK: Centre for Public Health, 2008.

31. Griffiths KM, Carron-Arthur B, Parsons A, Reid R. Effectiveness of programs for reducing the stigma associated with mental disorders. A meta-analysis of randomized controlled trials. *World Psychiatry* 2014; **13**(2): 161-75.

32. Berks J, McCormick R. Screening for alcohol misuse in elderly primary care patients: a systematic literature review. *Int Psychogeriatr* 2008; **20**(6): 1090-103.

33. Dumesnil H, Verger P. Public awareness campaigns about depression and suicide: a review. *Psychiatr Serv* 2009; **60**(9): 1203-13.

34. Redvers J, Bjerregaard P, Eriksen H, et al. A scoping review of Indigenous suicide prevention in circumpolar regions. *2015* 2015.

35. Donoghue K, Patton R, Phillips T, Deluca P, Drummond C. The effectiveness of electronic screening and brief intervention for reducing levels of alcohol consumption: a systematic review and meta-analysis. *J Med Internet Res* 2014; **16**(6): e142.

36. Aspinall EJ, Nambiar D, Goldberg DJ, et al. Are needle and syringe programmes associated with a reduction in HIV transmission among people who inject drugs: a systematic review and meta-analysis. *Int J Epidemiol* 2014; **43**(1): 235-48.

37. Livingston JD, Milne T, Fang ML, Amari E. The effectiveness of interventions for reducing stigma related to substance use disorders: a systematic review. *Addiction* 2012; **107**(1): 39-50.

38. Harrod CS, Goss CW, Stallones L, DiGuiseppi C. Interventions for primary prevention of suicide in university and other post-secondary educational settings. *Cochrane Database Syst Rev* 2014; **10**: Cd009439.

39. Isaac M, Elias B, Katz LY, et al. Gatekeeper training as a preventative intervention for suicide: a systematic review. *Can J Psychiatry* 2009; **54**(4): 260-8.

40. Robinson J, Hetrick SE, Martin C. Preventing suicide in young people: systematic review. *Aust N Z J Psychiatry* 2011; **45**(1): 3-26.

41. Milner AJ, Carter G, Pirkis J, Robinson J, Spittal MJ. Letters, green cards, telephone calls and postcards: systematic and meta-analytic review of brief contact interventions for reducing self-harm, suicide attempts and suicide. *The British Journal of Psychiatry* 2015; **206**(3): 184-90.

42. Copenhaver MM, Johnson BT, Lee IC, Harman JJ, Carey MP. Behavioral HIV risk reduction among people who inject drugs: meta-analytic evidence of efficacy. *J Subst Abuse Treat* 2006; **31**(2): 163-71.

43. Muckle W, Muckle J, Welch V, Tugwell P. Managed alcohol as a harm reduction intervention for alcohol addiction in populations at high risk for substance abuse. *Cochrane Database Syst Rev* 2012; **12**: Cd006747.

44. Van Citters AD, Bartels SJ. A systematic review of the effectiveness of community-based mental health outreach services for older adults. *Psychiatr Serv* 2004; **55**(11): 1237-49.

45. Murphy SM, Irving CB, Adams CE, Waqar M. Crisis intervention for people with severe mental illnesses. *Cochrane Database Syst Rev* 2015; **12**: Cd001087.

46. Borschmann R, Henderson C, Hogg J, Phillips R, Moran P. Crisis interventions for people with borderline personality disorder. *Cochrane Database Syst Rev* 2012; **6**: Cd009353.

47. Toot S, Devine M, Orrell M. The effectiveness of crisis resolution/home treatment teams for older people with mental health problems: a systematic review and scoping exercise. *Int J Geriatr Psychiatry* 2011; **26**(12): 1221-30.

48. Lewis C, Pearce J, Bisson JI. Efficacy, cost-effectiveness and acceptability of self-help interventions for anxiety disorders: systematic review. *Br J Psychiatry* 2012; **200**(1): 15-21.

49. Dedert E, Williams JJ, Stein R, McNeil J, McDuffie J, Ross I. Interventions for alcohol misuse. Washington, USA 2014.

50. Mayo-Wilson E, Montgomery P. Media-delivered cognitive behavioural therapy and behavioural therapy (self-help) for anxiety disorders in adults. *Cochrane Database Syst Rev* 2013; **9**: Cd005330.

51. Richards D, Richardson T. Computer-based psychological treatments for depression: A systematic review and meta analysis. *Clin Psychol Rev* 2012; **32**: 329-42.

52. Reyes-Portillo JA, Mufson L, Greenhill LL, et al. Web-based interventions for youth internalizing problems: a systematic review. *J Am Acad Child Adolesc Psychiatry* 2014; **53**(12): 1254-70.e5.

53. Leigh S, Flatt S. App-based psychological interventions: friend or foe? *Evid Based Ment Health* 2015; **18**(4): 97-9.

54. Huntley AL, Araya R, Salisbury C. Group psychological therapies for depression in the community: systematic review and meta-analysis. *Br J Psychiatry* 2012; **200**(3): 184-90.

55. Twomey C, O'Reilly G, Byrne M. Effectiveness of cognitive behavioural therapy for anxiety and depression in primary care: a meta-analysis. *Fam Pract* 2015; **32**(1): 3-15.

56. Linde K, Sigterman K, Kriston L, et al. Effectiveness of psychological treatments for depressive disorders in primary care: systematic review and meta-analysis. *Ann Fam Med* 2015; **13**(1): 56-68.

57. Olthuis JV, Watt MC, Bailey K, Hayden JA, Stewart SH. Therapist-supported Internet cognitive behavioural therapy for anxiety disorders in adults. *Cochrane Database of Systematic Reviews* 2015; (3).

58. Lee SY, Franchetti MK, Imanbayev A, Gallo JJ, Spira AP, Lee HB. Non-pharmacological prevention of major depression among community-dwelling older adults: a systematic review of the efficacy of psychotherapy interventions. *Arch Gerontol Geriatr* 2012; **55**(3): 522-9.

59. Christensen H, Pallister E, Smale S, Hickie IB, Calear AL. Community-based prevention programs for anxiety and depression in youth: a systematic review. *J Prim Prev* 2010; **31**(3): 139-70.

60. Van Loon A, Van Schaik A, Dekker J, Beekman A. Bridging the gap for ethnic minority adult outpatients with depression and anxiety disorders by culturally adapted treatments. *J Affect Disord* 2013; **147**(1-3): 9-16.

61. Mitchell SG, Gryczynski J, O'Grady KE, Schwartz RP. SBIRT for adolescent drug and alcohol use: current status and future directions. *J Subst Abuse Treat* 2013; **44**(5): 463-72.

62. Cowlishaw S, Merkouris S, Dowling N, Anderson C, Jackson A, Thomas S. Psychological therapies for pathological and problem gambling. *Cochrane Database of Systematic Reviews* 2012; (11).

63. Aardoom JJ, Dingemans AE, Spinhoven P, Van Furth EF. Treating eating disorders over the internet: a systematic review and future research directions. *Int J Eat Disord* 2013; **46**(6): 539-52.

64. Kurtz MM, Mueser KT. A meta-analysis of controlled research on social skills training for schizophrenia. *J Consult Clin Psychol* 2008; **76**(3): 491-504.

65. Tungpunkom P, Nicol M. Life skills programmes for chronic mental illnesses. *Cochrane Database Syst Rev* 2008; (2): CD000381.

66. Zou H, Li Z, Nolan MT, Arthur D, Wang H, Hu L. Self-management education interventions for persons with schizophrenia: a meta-analysis. *Int J Ment Health Nurs* 2013; **22**(3): 256-71.

67. Kelly EL, Fenwick KM, Barr N, Cohen H, Brekke JS. A systematic review of self-management health care models for individuals with serious mental illnesses. *Psychiatr Serv* 2014; **65**(11): 1300-10.

68. Pistrang N, Barker C, Humphreys K. Mutual help groups for mental health problems: a review of effectiveness studies. *Am J Community Psychol* 2008; **42**(1-2): 110-21.

69. Carron-Arthur B, Ali K, Cunningham JA, Griffiths KM. From Help-Seekers to Influential Users: A Systematic Review of Participation Styles in Online Health Communities. *J Med Internet Res* 2015; **17**(12): e271.

70. Polen MR, Whitlock EP, Wisdom JP, Nygren P, Bougatsos C. U.S. Preventive Services Task Force Evidence Syntheses, formerly Systematic Evidence Reviews. Screening in Primary Care Settings for Illicit Drug Use: Staged Systematic Review for the United States Preventive Services Task Force. Rockville (MD): Agency for Healthcare Research and Quality (US); 2008.

71. Bray JW, Cowell AJ, Hinde JM. A systematic review and meta-analysis of health care utilization outcomes in alcohol screening and brief intervention trials. *Med Care* 2011; **49**(3): 287-94.

72. Van der Krieke L, Wunderink L, Emerencia AC, de Jonge P, Sytema S. E-mental health self-management for psychotic disorders: state of the art and future perspectives. *Psychiatr Serv* 2014; **65**(1): 33-49.

73. Cristea IA, Kok RN, Cuijpers P. Efficacy of cognitive bias modification interventions in anxiety and depression: meta-analysis. *Br J Psychiatry* 2015; **206**(1): 7-16.

74. Oud M, Mayo-Wilson E, Braidwood R, et al. Psychological interventions for adults with bipolar disorder: systematic review and meta-analysis. *Br J Psychiatry* 2016; **208**(3): 213-22.

75. Marshall M, Rathbone J. Early intervention for psychosis. *Cochrane Database of Systematic Reviews* 2011; **6**: 1-176.

76. Barnett E, Sussman S, Smith C, Rohrbach LA, Spruijt-Metz D. Motivational Interviewing for Adolescent Substance Use: A Review of the Literature. *Addictive behaviors* 2012; **37**(12): 1325-34.

77. Buckley L, Pettit T. Supportive Therapy for Schizophrenia. *Schizophrenia Bulletin* 2007; **33**(4): 859-60.

78. Jiwa A, Kelly L, Pierre-Hansen N. Healing the community to heal the individual: literature review of aboriginal community-based alcohol and substance abuse programs. *Can Fam Physician* 2008; **54**(7): 1000-.e7.

79. Farr SL, Hutchings YL, Ondersma SJ, Creanga AA. Brief interventions for illicit drug use among peripartum women. *Am J Obstet Gynecol* 2014; **211**(4): 336-43.

80. Fachini A, Aliane PP, Martinez EZ, Furtado EF. Efficacy of brief alcohol screening intervention for college students (BASICS): a meta-analysis of randomized controlled trials. *Substance Abuse Treatment, Prevention, and Policy* 2012; **7**: 40-.

81. McQueen J, Howe TE, Allan L, Mains D, Hardy V. Brief interventions for heavy alcohol users admitted to general hospital wards. *Cochrane Database Syst Rev* 2011; (8): CD005191.

82. Wachtel T, Staniford M. The effectiveness of brief interventions in the clinical setting in reducing alcohol misuse and binge drinking in adolescents: a critical review of the literature. *J Clin Nurs* 2010; **19**(5-6): 605-20.

83. Okpokoro U, Adams CE, Sampson S. Family intervention (brief) for schizophrenia. *Cochrane Database Syst Rev* 2014; **3**: CD009802.

84. Polnay A, James V, Hodges L, Murray G, Munro C, Lawrie S. Group therapy for people with bulimia nervosa: Systematic review and meta-analysis. *Psychological Medicine* 2013: 1-14.

85. Marshall T, Goldberg RW, Braude L, et al. Supported Employment: Assessing the Evidence. *Psychiatric services* 2014; **65**(1): 16-23.

86. Morriss R, Vinjamuri I, Faizal MA, Bolton CA, McCarthy JP. Training to recognise the early signs of recurrence in schizophrenia. *Cochrane Database Syst Rev* 2013; **2**: CD005147.

87. Marshall M, Crowther R, Almaraz-Serrano A, et al. Day hospital versus admission for acute psychiatric disorders. *Cochrane Database Syst Rev* 2003; (1): CD004026.

88. Coldwell CM, Bender WS. The effectiveness of assertive community treatment for homeless populations with severe mental illness: a meta-analysis. *Am J Psychiatry* 2007; **164**(3): 393-9.

89. Meyer PS, Morrissey JP. A comparison of assertive community treatment and intensive case management for patients in rural areas. *Psychiatr Serv* 2007; **58**(1): 121-7.

90. Dieterich M, Irving CB, Park B, Marshall M. Intensive case management for severe mental illness. *Cochrane Database Syst Rev* 2010; (10): CD007906.

91. Health CfAaM. Concurrent substance use and mental health disorders.

92. Nunes EV, Levin FR. Treatment of depression in patients with alcohol or other drug dependence: a meta-analysis. *JAMA* 2004; **291**(15): 1887-96.

93. Hunt GE, Siegfried N, Morley K, Sitharthan T, Cleary M. Psychosocial interventions for people with both severe mental illness and substance misuse. *Cochrane Database Syst Rev* 2013; **10**: CD001088.

94. Hesse M, Vanderplasschen W, Rapp RC, Broekaert E, Fridell M. Case management for persons with substance use disorders. *Cochrane Database Syst Rev* 2007; (4): CD006265.

95. Embrett MG, Randall GE, Longo CJ, Nguyen T, Mulvale G. Effectiveness of Health System Services and Programs for Youth to Adult Transitions in Mental Health Care: A Systematic Review of Academic Literature. *Adm Policy Ment Health* 2016; **43**(2): 259-69.

96. Hockenhull J, Whittington R, Leitner M, et al. A systematic review of previous and intervention strategies for populations at high risk of engaging in violent behaviour: update 2002-08. *Health Technol Assessment* 2012; **16**(3).

97. Shek E, Stein AT, Shansis FM, Marshall M, Crowther R, Tyrer P. Day hospital versus outpatient care for people with schizophrenia. *Cochrane Database Syst Rev* 2009; (4): CD003240.

98. Gili M, Vicens C, Roca M, Andersen P, McMillan D. Interventions for preventing relapse or recurrence of depression in primary health care settings: A systematic review. *Prev Med* 2015; **76 Suppl**: S16-21.

99. Wilkinson P, Izmeth Z. Continuation and maintenance treatments for depression in older people. *Cochrane Database Syst Rev* 2012; **11**: CD006727.

100. Rodgers M, Asaria M, Walker S, et al. The clinical effectiveness and cost-effectiveness of low-intensity psychological interventions for the secondary prevention of relapse after depression: a systematic review. *Health Technol Assess* 2012; **16**(28): 1-130.

101. Amato L, Minozzi S, Davoli M, Vecchi S. Psychosocial and pharmacological treatments versus pharmacological treatments for opioid detoxification. *Cochrane Database Syst Rev* 2011; (9): CD005031.

102. Sarai M, Tejani AM, Chan AH, Kuo IF, Li J. Magnesium for alcohol withdrawal. *Cochrane Database Syst Rev* 2013; **6**: CD008358.

103. Amato L, Minozzi S, Vecchi S, Davoli M. Benzodiazepines for alcohol withdrawal. *Cochrane Database Syst Rev* 2010; (3): CD005063.

104. Mueser KT, Bond GR, Drake RE, Resnick SG. Models of Community Care for Severe Mental Illness: A Review of Research on Case Management. *Schizophrenia Bulletin* 1998; **24**(1): 37-74.

105. Gould RL, Coulson MC, Howard RJ. Efficacy of cognitive behavioral therapy for anxiety disorders in older people: a meta-analysis and meta-regression of randomized controlled trials. *J Am Geriatr Soc* 2012; **60**(2): 218-29.

106. Churchill R, Moore TH, Furukawa TA, et al. 'Third wave' cognitive and behavioural therapies versus treatment as usual for depression. *Cochrane Database Syst Rev* 2013; **10**: CD008705.

107. Cooper K, Chatters R, Kaltenthaler E, Wong R. Psychological and psychosocial interventions for cannabis cessation in adults: a systematic review short report. *Health Technol Assess* 2015; **19**(56): 1-130.

108. Jauhar S, McKenna PJ, Radua J, Fung E, Salvador R, Laws KR. Cognitive-behavioural therapy for the symptoms of schizophrenia: systematic review and meta-analysis with examination of potential bias. *Br J Psychiatry* 2014; **204**(1): 20-9.

109. Amick HR, Gartlehner G, Gaynes BN, et al. Comparative benefits and harms of second generation antidepressants and cognitive behavioral therapies in initial treatment of major depressive disorder: systematic review and meta-analysis. *BMJ* 2015; **351**: h6019.

110. Dougall N, Maayan N, Soares-Weiser K, McDermott L, A M. Transcranial magnetic stimulation (TMS) for the treatment of schizophrenia. *Cochrane Database of Systematic Reviews* 2015.

111. Li H, Wang J, Xiao Z. Repetitive transcranial magnetic stimulation (rTMS) for panic disorder. *Cochrane Database of Systematic Reviews* 2014.

112. Rodriguez-Martin J, Barbanoj J, Schlaepfer T, et al. Transcranial magnetic stimulation (TMS) for depression. *Cochrane Database of Systematic Reviews* 2002.

113. Stoffers J, Vollm B, Rucker G, Timmer A, Huband N, Lieb K. Psychological therapies for borderline personality disorder. *Cochrane Database of Systematic Reviews* 2012.

114. Babalola O, Gormez V, Alwan NA, Johnstone P, Sampson S. Length of hospitalisation for people with severe mental illness. *Cochrane Database Syst Rev* 2014; **1**: CD000384.

115. Steffen S, Kosters M, Becker T, Puschner B. Discharge planning in mental health care: a systematic review of the recent literature. *Acta Psychiatr Scand* 2009; **120**(1): 1-9.

116. Vazquez-Bourgon J, Salvador-Carulla L, Vazquez-Barquero JL. Community alternatives to acute inpatient care for severe psychiatric patients. *Actas Esp Psiquiatr* 2012; **40**(6): 323-32.

117. Vigod SN, Kurdyak PA, Dennis CL, et al. Transitional interventions to reduce early psychiatric readmissions in adults: systematic review. *Br J Psychiatry* 2013; **202**(3): 187-94.

118. Brunette MF, Mueser KT, Drake RE. A review of research on residential programs for people with severe mental illness and co-occurring substance use disorders. *Drug Alcohol Rev* 2004; **23**(4): 471-81.

119. Chilvers R, Macdonald GM, Hayes AA. Supported housing for people with severe mental disorders. *Cochrane Database Syst Rev* 2006; (4): CD000453.

120. Nelson G, Aubry T, Lafrance A. A review of the literature on the effectiveness of housing and support, assertive community treatment, and intensive case management interventions for persons with mental illness who have been homeless. *Am J Orthopsychiatry* 2007; **77**(3): 350-61.

121. Miller PG, Curtis A, Sonderlund A, Day A, Droste N. Effectiveness of interventions for convicted DUI offenders in reducing recidivism: a systematic review of the peer-reviewed scientific literature. *Am J Drug Alcohol Abuse* 2015; **41**(1): 16-29.

122. Ministry of Health and Long-term Care. Patients first: A proposal to strengthen patient-centred health care in Ontario. 2015.

123. O'Neil ME, Peterson K, Low A, et al. Suicide Prevention Interventions and Referral/Follow-Up Services: A Systematic Review. VA Evidence-based Synthesis Program Reports. Washington (DC): Department of Veterans Affairs; 2012.

124. Farrand P, Woodford J. Impact of support on the effectiveness of written cognitive behavioural self-help: a systematic review and meta-analysis of randomised controlled trials. *Clin Psychol Rev* 2013; **33**(1): 182-95.

125. Cuijpers P, Donker T, Johansson R, Mohr DC, van Straten A, Andersson G. Self-guided psychological treatment for depressive symptoms: a meta-analysis. *PLoS One* 2011; **6**(6): e21274.

126. Kuerbis A, Sacco P. A review of existing treatments for substance abuse among the elderly and recommendations for future directions. *Subst Abuse* 2013; **7**: 13-37.

127. Elzerbi C, Donoghue K, Drummond C. A comparison of the efficacy of brief interventions to reduce hazardous and harmful alcohol consumption between European and non-European countries: a systematic review and meta-analysis of randomized controlled trials. *Addiction* 2015; **110**(7): 1082-91.

128. MacLean S, Cameron J, Harney A, Lee NK. Psychosocial therapeutic interventions for volatile substance use: a systematic review. *Addiction* 2012; **107**(2): 278-88.

129. Singh SP. Early intervention in psychosis. *The British Journal of Psychiatry* 2010; **196**(5): 343-5.

130. Fitzpatrick-Lewis D, Ganann R, Krishnaratne S, Ciliska D, Kouyoumdjian F, Hwang SW. Effectiveness of interventions to improve the health and housing status of homeless people: a rapid systematic review. *BMC Public Health* 2011; **11**(1): 1-14.

131. Czabala C, Charzynska K, Mroziak B. Psychosocial interventions in workplace mental health promotion: an overview. *Health Promot Int* 2011; **26 Suppl 1**: i70-84.

132. Lapierre S, Erlangsen A, Waern M, et al. A systematic review of elderly suicide prevention programs. *Crisis* 2011; **32**(2): 88-98.

133. Angus C, Latimer N, Preston L, Li J, Purshouse R. What are the Implications for Policy Makers? A Systematic Review of the Cost-Effectiveness of Screening and Brief Interventions for Alcohol Misuse in Primary Care. *Front Psychiatry* 2014; **5**: 114.

134. Abdul-Quader AS, Feelemyer J, Modi S, et al. Effectiveness of structural-level needle/syringe programs to reduce HCV and HIV infection among people who inject drugs: a systematic review. *AIDS Behav* 2013; **17**(9): 2878-92.

135. Revicki DA, Siddique J, Frank L, et al. Cost-effectiveness of evidence-based pharmacotherapy or cognitive behavior therapy compared with community referral for major depression in predominantly low-income minority women. *Arch Gen Psychiatry* 2005; **62**(8): 868-75.

136. Larsen M, Nicholas J, Christensen H. A Systematic Assessment of Smartphone Tools for Suicide Prevention. *PLoS One* 2016; **11**(4).

137. Lundahl B, Moleni T, Burke BL, et al. Motivational interviewing in medical care settings: a systematic review and meta-analysis of randomized controlled trials. *Patient Educ Couns* 2013; **93**(2): 157-68.

138. Minozzi S, Amato L, Davoli M. Detoxification treatments for opiate dependent adolescents. *Cochrane Database Syst Rev* 2009; (2): CD006749.

139. Rummel C, Hamann J, Kissling W, Leucht S. New generation antipsychotics for first episode schizophrenia. *Cochrane Database Syst Rev* 2003; (4): CD004410.

140. Lloyd-Evans B, Crosby M, Stockton S, et al. Initiatives to shorten duration of untreated psychosis: systematic review. *Br J Psychiatry* 2011; **198**(4): 256-63.

141. Pani PP, Trogu E, Pacini M, Maremmani I. Anticonvulsants for alcohol dependence. *Cochrane Database Syst Rev* 2014; **2**: CD008544.

142. Thoma NC, McKay D, Gerber AJ, Milrod BL, Edwards AR, Kocsis JH. A quality-based review of randomized controlled trials of cognitive-behavioral therapy for depression: an assessment and metaregression. *Am J Psychiatry* 2012; **169**(1): 22-30.

143. Nurjannah I, Mills J, Usher K, Park T. Discharge planning in mental health care: an integrative review of the literature. *J Clin Nurs* 2014; **23**(9-10): 1175-85.

APPENDICES A1-3

The following tables follow the same structure as Tables 4-6, but provide additional detail behind what was provided in the text.

Appendix A1: Summary of evidence on effectiveness from systematic reviews relevant to Element 1 – Defining the basket of services for the general population and those at risk of mental health and/or substance use problems

Category of service	Focus of studies of effectiveness	Evidence of effectiveness				Other information	
	Intervention	Participants/ setting	For all people	For people with co-morbidity	For other groups of concern	Offered now	Prioritized for other places or groups
Mental health promotion							
• Stigma reduction	Anti-stigma interventions (mental health first aid, role play, online training, psychoeducation, workshops, trauma risk management, and crisis intervention training)	Workplace (public and private sectors)	All interventions were effective in reducing at least one dimension of stigma. Ten of 11 interventions effectively increased mental health literacy. Nine of 14 interventions successfully reduced individuals' stigmatizing attitudes, specifically mental health first aid, trauma and risk management, and crisis intervention training. All interventions focused on changing behaviour had a positive effect on increasing supportive behaviour. Though a limited number of studies included examined sustainability, those that did found effectiveness was at least, in part sustained at two-year follow-up. (AMSTAR 9/9)(19)	No evidence	No evidence	Yes	Alberta; SE LHIN
	Mass media campaigns (internet, recordings and print)	General population	Mixed evidence was found on the ability of mass media campaigns to reduce discrimination outcomes. A small-to-medium level of effectiveness was found for mass media campaigns on reducing prejudice immediately after the intervention (SMD -0.38); at one to two months (-0.38); and at six to nine months (-0.49). (AMSTAR 11/11)(17)	No evidence	No evidence		
	Education, consumer contact and cognitive behavioural therapy		Interventions had a small effect in reducing personal stigma across all conditions and interventions (0.28; 95% CI 0.17 to 0.39). A similar effect was noted for educational interventions (0.30; 95% CI 0.19 to 0.42). Interventions of consumer contact were non-significant. Evidence showed that there was a small positive effect for interventions reducing stigma associated with depression (0.19, 95% CI 0.06 to 0.33), as well as for generic mental illness for educational interventions (0.34; 95% CI 0.12 to 0.56). Effectiveness of educational interventions for stigma around psychosis was non-significant. Interventions were not effective at reducing perceived stigma or internalized stigma. (AMSTAR 7/11)(31)	No evidence	No evidence		
	Self-stigma interventions (acceptance and commitment therapy, skills training, vocational counselling, removal of	General public, medical students and substance-using individuals	Acceptance and commitment training was found to significant reduce internalized shame (1.33; standard error 0.35) and internalized stigma (1.14; standard error 0.57) among substance-using individuals. Interventions did not lead to improved self-image. There was no significant effect from	No evidence	No evidence		

Category of service	Focus of studies of effectiveness	Evidence of effectiveness				Other information	
	Intervention	Participants/ setting	For all people	For people with co-morbidity	For other groups of concern	Offered now	Prioritized for other places or groups
	needle track marks) and social stigma interventions (critical reflection techniques and programs comprised of structured education)		the provision of factsheets. Educational interventions significantly reduced stigmatized attitudes towards heroine (1.50; standard error 0.13) and alcohol (1.25; standard error of 0.13). A structured drug and alcohol program for medical students resulted in small but significant decreases in the dislike for problem drinkers among first-year (0.30; standard error 0.10) and fourth-year (0.34; standard error 0.11) students. (AMSTAR 8/9) (37)				
	Gatekeeper training	School staff and counsellors, aboriginal community members, youth, veterans, primary-care personnel and air force personnel	Though no meta-analysis was possible. Gatekeeper training was found to be a successful intervention at improving knowledge, appraisals of efficacy and access to services. Further, programs that trained primary-care physicians found mixed results regarding a reduction in suicide rates.(AMSTAR 10/11)(39)		A 73% reduction in mean number of self-destructive events was reported following gatekeeper training with American aboriginal youth, but no change in overall number of completed suicides. (AMSTAR 10/11)(39)		
• Befriending interventions	Befriending interventions	Pregnant and post-natal women, individuals with schizophrenia	Befriending interventions had a significant effect on depressive symptoms against no care/treatment as usual in the short term (standardized mean difference - 0.27; 95% CI -0.48 to -0.06) and long term (standardized mean difference -0.18; 95% CI -0.32 to -0.05). Befriending was less effective than cognitive behavioural therapy for adolescents with depression (standardized mean difference 0.41; 95% CI -70.07 to 0.89) and for medication-resistant individuals with schizophrenia (standardized mean difference 0.23; 95% CI -70.18 to 0.65) (AMSTAR 10/11)(18)	Less effective in older adults recovering from myocardial infarction (AMSTAR 10/11)	Less effective in mothers living in deprived inner city areas. (AMSTAR 10/11)(18)		
• Suicide awareness	Short media campaigns, gatekeeper training, long	General public	Meta-analysis was not possible. Public awareness and information on suicide and depression overall improved	No evidence	No evidence	Yes, selectively	SE LHIN

Category of service	Focus of studies of effectiveness	Evidence of effectiveness				Other information	
	Intervention	Participants/ setting	For all people	For people with co-morbidity	For other groups of concern	Offered now	Prioritized for other places or groups
education and information	national programs and long local or community programs to raise awareness about suicide		knowledge and awareness of mental illness in the short term. The effect of these campaigns on public behaviour was uncertain. Multifaceted interventions and those tailored to specific, homogeneous communities were more effective than single strategies or national campaigns (AMSTAR 5/10)(33)				
• Promoting well-being in the workplace	Physical activity interventions (aerobic dance, weight training, and strength and resistance training) and yoga.	Workplace	Against control groups, physical activity showed improvement in stress scores (effect size 0.56). No evidence was found for the effects of physical activity on anxiety. Exercise combined with behaviour modification reduced depression scores by 26%. Compared to baseline mental health, improvements were seen in stress and anxiety for both physical activity and cognitive behavioural therapy. Cognitive behavioural therapy yielded a larger effect size. (AMSTAR 4/10)(21)	No evidence	No evidence		
Mental illness and substance use prevention							
• Suicide prevention	Self-directed violence prevention, referral and follow-up	Military veterans	No randomized control trials were found. Unable to determine effectiveness of prevention of suicide or self-directed violence among veterans. (AMSTAR 6/11)(123)	No evidence	No evidence	Yes, selectively	Children; Alberta
	Classroom instruction, institutional policies and gatekeeper training programs for warning signs of crises or suicide risk	University and college students	Insufficient evidence limits the recommendation of widespread adoption. Classroom based instruction (standardized mean difference 1.51, 95% CI 0.57 – 2.45) and gatekeeper training programs increased short-term knowledge of suicide (standardized mean difference 0.86; CI 0.28 to 1.44). No effect was found for any of the interventions on suicide prevention self-efficacy. Means restrictions policies reduced completed suicides 2.00 compared to 8.68 per 100,000. (standardized mean difference 0.86; CI 0.28 to 1.44). (AMSTAR 6/11)(38)	No evidence	No evidence		
					A scoping review found promising practices from: measurements of promotion and preventive practices; adaptation of		

Category of service	Focus of studies of effectiveness	Evidence of effectiveness				Other information	
	Intervention	Participants/ setting	For all people	For people with co-morbidity	For other groups of concern	Offered now	Prioritized for other places or groups
					community values; integrating technology into traditional practices; opening lines of communication around suicide; developing youth focused programs and services; integrating knowledge exchange practices with researchers; increased integration of western and community knowledge; and ensuring outcomes are mapped and reported. (AMSTAR 7/11) (34)		
	Education, community prevention and gatekeeper training	Indigenous communities		No evidence	No meta-analysis possible. Gatekeeper training resulted in significant short-term increases in participants'		

Category of service	Focus of studies of effectiveness	Evidence of effectiveness				Other information	
	Intervention	Participants/ setting	For all people	For people with co-morbidity	For other groups of concern	Offered now	Prioritized for other places or groups
					knowledge of identifying individuals at risk. Students receiving education interventions that were culturally tailored were less suicidal and showed a reduction in feelings of hopelessness. (5/10)(23)		
	Suicide prevention interventions: individual psychological therapies; group psychological therapies; family therapies; youth nominated support teams; and emergency access card	Young adults (12-25) who have presented in a clinical setting with suicidal ideation or attempt, or deliberate self-harm	Limited evidence was available, however cognitive behavioural therapy demonstrated some effectiveness compared to treatment as usual (standardized mean difference -3.4; 95% CI -6.54 to -0.26) at nine-month follow-up. None of family interventions, youth nominated support or emergency access interventions showed significant effects on the outcomes of interest. AMSTAR 6/11)(40)	No evidence	No evidence		
	Brief intervention contact (telephone contact, emergency or crisis cards and postcard or letter)	Individuals at-risk of suicide or self-harm	Brief contact interventions had a non-significant reduction in self-harm or suicide attempt. The number of repetitions of self-harm however, was significantly reduced from the intervention (incidence rate ratio 0.66; 95% CI 0.54 to 0.80). No significant reduction in the odds of suicide was found. (AMSTAR 6/11) (41)	No evidence	No evidence		
	General suicide training program and occupational-specific programs for suicide prevention	Workplace	Limited evaluations of interventions in workplace settings precluded comparative effectiveness, though positive results have been reported from the individual programs and studies. (AMSTAR 5/11) (25)	No evidence	No evidence		

Category of service	Focus of studies of effectiveness	Evidence of effectiveness				Other information	
	Intervention	Participants/ setting	For all people	For people with co-morbidity	For other groups of concern	Offered now	Prioritized for other places or groups
• Workplace screening for depression and anxiety	Screening for depression, delivery of screening results, psychoeducation and referral, and evaluation	Workplace	Review included only one study. Intervention was successful for all patients with depressive disorders, but was less beneficial for patients with higher rates of spontaneous remission. (AMSTAR 5/9)(27)	No evidence	No evidence		
	Interventions for depression in the workplace: psychological interventions; enhanced primary care; enhanced psychiatric care; enhanced occupational physician roles; integrated care management; exercise; and worksite interventions	Workplace	Evidence from included studies was considered too low quality to make conclusions about effectiveness. (AMSTAR 7/10)(19)	No evidence	No evidence		
• Screening in primary care for alcohol misuse	Electronic screening and brief intervention for alcohol use	Non-treatment seeking hazardous or harmful drinkers	Evidence that electronic screening and brief interventions are effective at reducing alcohol consumption at less than three months (standardized mean difference of – 32.74 g/week ; 95% CI -56.80 to - 8.68); at between three and six months (standardized mean difference of –17.33 g/week; 95% CI -31/82 to -2.84); and from six months to 12 months (standardized mean difference of -14.91 g/week ; 95% CI -25.56 to -4.26). (AMSTAR 8/11) (35)	No evidence	No evidence		
• Harm reduction	Needle and syringe programs	Injection drug users	Review precluded meta-analysis and pooling of effects. Evidence from one study showed that higher syringe coverage was associated with reduced risk behaviour in injection drug users. Mixed results were reported regarding whether setting of needle and syringe programs had an impact on behaviour, however, mobile delivery vans and vending machines for syringe and needle exchange are more effective for younger injection drug users. (AMSTAR 11/11) (30)	No evidence	No evidence	Yes, selectively	SE LHIN; Alberta

Category of service	Focus of studies of effectiveness	Evidence of effectiveness				Other information	
	Intervention	Participants/ setting	For all people	For people with co-morbidity	For other groups of concern	Offered now	Prioritized for other places or groups
	Needle and syringe exchange programs	Injection drug users	Needle and syringe programs reduced the risk of HIV transmission among people who inject drugs (pooled effect size of 0.66; 95% CI 0.43 to 1.01). (AMSTAR 8/11)(36)				
	Family-based interventions: family-therapy; cognitive behavioural therapy; and community reinforcement	Indigenous communities		No evidence	Though no meta-analysis was possible, the vast majority of studies included in the review reported reduced alcohol and substance consumption following family-based interventions when adapted with input from indigenous communities.(AMSTAR 5/11)(29)		
	Managed alcohol	Individuals with alcohol addictions and populations at high risk of substance use	No reviews were found to determine the effectiveness of managed alcohol as a harm reduction strategy (AMSTAR 7/7)(43)	No evidence	No evidence		
	Behavioural HIV risk reduction interventions: education; condom use skills; self-management-skills; drug treatment; provided bleach; provided condoms	Injection drug users and populations at high risk of HIV/AIDS	Interventions reduced injection drug use (effect size 0.08; 95% CI 0.03 to 0.13); decreased non-injection drug use (effect size 0.18; 95% CI 0.06 to 0.30); increased entry into drug treatment (effect size 0.11; 95% CI 0.02 to 0.21); increased condom use (effect size 0.19 95% CI 0.11 to 0.26); and reduced the frequency of trading sex for drugs (effect size 0.33; 95% CI = 0.10 to 0.57). Injection drug use outcomes were not found to fade. However, condom use outcomes had faded at follow-ups. (AMSTAR 5/11)(42)	No evidence	Interventions were more successful at reducing drug use among non-Caucasians when content focused on drug-related and sex-related		

Category of service	Focus of studies of effectiveness	Evidence of effectiveness				Other information	
	Intervention	Participants/ setting	For all people	For people with co-morbidity	For other groups of concern	Offered now	Prioritized for other places or groups
					risks, and for interpersonal skills training.		
• Outreach services	School-based post-suicide intervention programs, family-focused suicide intervention programs and outreach services	Youth who were affected by or witnessed suicide	No pooling or meta-analysis was possible. Some negative effects were found for school-based post-suicide interventions among adolescents in one study, which saw an increase in hospitalizations and suicide gestures. Outreach programs at the site of the suicide were found to increase the likelihood of seeking-help. (AMSTAR 5/10)(22)	No evidence	No evidence		
	Traditional referral sources, gatekeepers-non traditional referral sources to health services	Older adults	Included studies in the review precluded meta-analysis but found evidence that gatekeeper models are more effective than traditional referrals for recruiting older adults into interventions for treatment of depression. Multi-disciplinary outreach teams improved depressive symptoms and symptom severity among participating older adults. (AMSTAR 3/10)(44)	No evidence	No evidence	Yes, selectively	SE LHIN

Appendix A2: Summary of evidence on effectiveness from systematic reviews relevant to Element 2 – Defining the basket of services for those with mild to moderate mental health and substance use problems

Category of service	Focus of studies of effectiveness		Evidence of effectiveness			Other information	
	Intervention	Participants/ setting	For all people	For people with co-morbidity	For other groups of concern	Offered now	Prioritized for other places or groups
Crisis services							
• Crisis intervention	Crisis intervention (multi-disciplinary team of trained staff) including immediate assessment and identification followed by initial implementation of treatment	Severely mentally ill adults in crisis or who required immediate hospitalization	Crisis intervention services were found to have a small reduction on repeat admissions to hospital (risk ratios 0.75; 95% CI 0.50 to 1.13), to reduce family burden at six months (risk ratio 0.34; 95% CI 0.20 to 0.59), to improve mental state at three months (mean difference -4.03 ; 95% CI-8.18 and 0.12), to improve global state (mean difference 5.70; 95% CI -0.26 to 11.66), and to increase client satisfaction with care (mean difference 5.40; 95% CI 3.91 to 6.89). No significant difference was found between crisis intervention and standard care for number of deaths. (AMSTAR 9/11)(45)	No evidence	No evidence	Yes	Children; SE LHIN; Alberta
	Crisis resolution home treatment teams	Older adults with mental illness	Evidence contained in the review was inconclusive due to low quality data and was unable to draw conclusions of service effectiveness. (AMSTAR 5/9)(47)	No evidence	No evidence		
• Mobile crisis services	Short-term crisis interventions	Adults with a primary diagnosis of borderline personality disorder	Reviews were unable to determine the effect of home treatment teams and mobile crisis teams on the impact of length of hospital stay or maintenance of community residence for adults with borderline personality disorder. (AMSTAR 8/9)(46)	No evidence	No evidence	Yes, selectively	SE LHIN
• Emergency psychiatry			No systematic reviews identified				SE LHIN
• Short-term assessment and treatment			No systematic reviews identified				SE LHIN
• Short-term crisis support beds			No systematic reviews identified				SE LHIN
Early identification and information and referral							
• Community service information and referral	Online health communities/ information	General public	No pooling was possible. The review could not draw conclusions on effectiveness. (AMSTAR 3/10)(69)	No evidence	No evidence	Yes, selectively	Alberta
• Centralized access/intake			No systematic reviews identified			Yes, selectively	SE LHIN

Category of service	Focus of studies of effectiveness		Evidence of effectiveness			Other information	
	Intervention	Participants/ setting	For all people	For people with co-morbidity	For other groups of concern	Offered now	Prioritized for other places or groups
• Initial screening and brief assessments	Screening for illicit drug use in primary care and behavioural interventions (cognitive behavioural therapy, motivation interviewing, case management and other psychosocial)	Individuals who use or are dependent on illicit drugs	No evidence was found on the effects of health outcomes or on the effects of treatment outcomes following screening. Fair to good evidence was found that pharmacotherapies and behavioural interventions effectively reduce opiate, cocaine or marijuana use. Mixed evidence was found for the effect of treatment on social and legal outcomes. (AMSTAR 7/9)(70)	No evidence	No evidence	No	Alberta
	Screening, brief intervention and referral to treatment model	Adolescents (12-22) at risk of substance use disorders and whose use puts them at risk for injury	Pooling was not possible. Evidence was found for the use of screening instruments, though the variety of instruments available limits comparisons. The findings suggest that the model is well suited to address substance use among adolescents, but additional data is needed for definitive conclusions. (AMSTAR 3/10)(61)	No evidence	No evidence		
	Screening and brief intervention	Individuals who are at risk or use primary care and emergency department services for problems related to alcohol use	Screening and brief intervention had little to no effect on inpatient or outpatient healthcare utilization, but had a small though non-significant negative effect on emergency department utilization. (AMSTAR 7/11) (71)	No evidence	No evidence		
• Client navigation services			No systematic reviews identified.	No evidence	No evidence	No	
• Self-help resources	Apps for the management of bipolar disorder (screening and assessment, symptom monitoring, community support; and treatment)	Individuals diagnosed with bipolar disorder	Apps providing information were often (69%) not following core psychoeducation principles or best practice guidelines. Neither comprehensiveness of psychoeducation information nor adherence to guidelines were significantly correlated with user ratings. Few apps (40%) were found to use validated screening measures. Effectiveness was not assessed. (AMSTAR 5/9)(28)	No evidence	No evidence	Yes	Alberta

Category of service	Focus of studies of effectiveness		Evidence of effectiveness			Other information	
	Intervention	Participants/ setting	For all people	For people with co-morbidity	For other groups of concern	Offered now	Prioritized for other places or groups
	e-Interventions for alcohol use (CD-ROM, web-based, interactive voice response and mobile applications)	Individuals with or at risk of alcohol misuse	Evidence suggests that e-interventions produce small reductions in alcohol consumption at six months. CD, web-based and interactive voice response showed mixed levels of effectiveness at six months, and, following a sensitivity analysis, reported a small, significant reduction in alcohol consumption (mean difference-14.7 g/week; 95% CI -26.4 to -3.0). e-Interventions did not result in a significant reduction in binge drinking among adolescents at six months, and had no effect on negative social consequences. (AMSTAR 8/11)(49)	No evidence	No evidence		
	Written self-help materials, internet-delivered self-help programs, therapist contact	Individuals with anxiety disorders including obsessive compulsive disorder, generalized anxiety and panic disorders	Self-help interventions for anxiety were found to be effective (effect size 0.84) compared to waitlist. Larger effect sizes were seen for multi-media and web-based interventions (0.90), as well as for guided self-help interventions (0.97) compared to waitlist. There was a moderate effect size however, (0.34) in favour of therapist interventions over self-help. (AMSTAR 6/11)(48)	No evidence	No evidence		
	Internet- and mobile-based self-help interventions (depression programs, master your mood, depression and anxiety programs, problem solving, anxiety programs and cognitive bias modification)	Adolescents and young adults with depression, anxiety or at risk of suicide	No web-based interventions for the prevention of suicide were identified. The review instead included mobile and internet-based interventions. No meta-analysis was undertaken. However, individual effect sizes were reported, finding that half of these studies showed reduced symptoms of depression or anxiety with effect sizes ranging from small to large (0.15 to 3.65) when compared to waitlist or no treatment. (AMSTAR 8/10)(52)	No evidence	No evidence		
	Self-management interventions (psychoeducation, communication and decision-making, peer support, management of	Individuals with psychotic disorders	E-mental health services are at least as effective as usual care or non-technological approaches. Among the interventions, e-mental health self-management for medication management had a large effect (0.92), while the effect of both psychoeducation (0.37) and communication and shared decision-making (0.21) was small when compared to usual care and non-technological equivalents. No studies reported	No evidence	No evidence		

Category of service	Focus of studies of effectiveness		Evidence of effectiveness			Other information	
	Intervention	Participants/ setting	For all people	For people with co-morbidity	For other groups of concern	Offered now	Prioritized for other places or groups
	medication, daily functioning and lifestyle)		negative effects. (AMSTAR 6/10)(72)				
	Written cognitive behavioural therapy	Individuals with mild mental illness where cognitive behavioural therapy would be beneficial	Written cognitive behavioural self-help was found to be moderately effective (-0.49) compared to control conditions. Different types of support along with the written self-help results showed similar levels of effect (guided written cognitive behavioural therapy -0.53 and self-administered -0.42). Among the guided therapies, telephone support was found to be the most effective for cognitive behavioural therapy (-0.91). Interventions were substantially more effective for depression than other mental illnesses (guided: -0.71; and self-administered -0.76). (AMSTAR 8/11) (124)	No evidence	No evidence		
	Web-based interventions for depression (cognitive behavioural therapy, therapist email/contact, sadness program; and MoodGYM)	Adults with depression (self-report or diagnosis)	Meta-analysis revealed a moderate effect (- 0.56; 95% CI -0.71 to -0.46). Therapist-supported interventions across all depressions had a large effect size (1.35) which continued upon follow-up (1.29). The effect size for administrative-support interventions had a moderate effect size (0.95) which increased at follow-up (1.20). Interventions with no support had a lower, but still moderate effect on depression outcomes (0.78). Compared with waiting list and treatment as usual, there was a moderate effect on depression after treatment (-0.56; 95% CI -0.71 to -0.41). Computer-based interventions were associated with a three-fold increase in clinical improvement (odds ratio 3.68; 95% CI 2.12 and 6.40) and four-fold increase in recovery from depression (odds ratio 4.14; 95% CI 2.01 to 8.53) (AMSTAR 5/11)(51)	No evidence	No evidence		
	Self-guided cognitive behavioural therapy	General population and a recorded diagnosis of depression	Self-guided cognitive behavioural therapy had a small but significant effect on depressive symptoms at post-test (0.28) compared to control groups. The small effect of self-guided cognitive behavioural therapy remained during follow-ups between four and 12 months (0.23). (AMSTAR 8/11)(125)	No evidence	No evidence		
	Cognitive behavioural therapy or behavioural therapy using printed material, audio recordings, video or computers	Individuals with panic disorders, social anxiety and depression	Self-help may be useful for people who are not able to access other care, however face-to-face therapy was found to be superior. Compared to no interventions, medium effects were found in favour of self-help (standardized mean difference 0.67; 95% CI 0.55 to 0.80) and a greater response rate was found than for no treatment (risk ratio 2.34; 95% CI 1.81 to 3.03). In comparing to face-to-face therapy however, small	No evidence	No evidence		

Category of service	Focus of studies of effectiveness		Evidence of effectiveness			Other information	
	Intervention	Participants/ setting	For all people	For people with co-morbidity	For other groups of concern	Offered now	Prioritized for other places or groups
			effects were found for face-to-face treatment (standardized mean difference -0.23; 95% CI -0.36 to -0.09). (AMSTAR 11/11)(50)				
• Mental health and substance use apps	Mobile apps for suicide prevention and deliberate self-harm	Individuals with depression, at risk of suicide or at risk of self-harm	Mixed evidence exists on the effectiveness of mental health and substance use apps, most of which concludes that more research is required. However, there is some evidence that while they demonstrate effect sizes similar to conventional therapies on user engagement, they may not be as effective as other forms of psychotherapy. (No AMSTAR available) (53)	No evidence	No evidence		
Counselling and therapy							
• Counselling and treatment	Cognitive behavioural therapy and family intervention	Adults with prodromal symptoms or first episode psychosis	Early intervention services produced clinically important reductions in the risk of both relapse and hospital admission. In addition, a small effect favouring early intervention services was found in terms of reduced symptom severity (positive -0.21; 95% CI -0.42 to -0.01; negative -0.39; 95% CI -0.57 to -0.20) and likelihood to relapse (35.2% versus 51.9%; 95% CI 3 to 25) compared to standard treatment. When compared with standard care, cognitive behavioural therapy reduced symptom severity, but the effects were not significant at the end of treatment or at the two-year follow-up. Participants receiving family intervention were less likely to relapse or be admitted to hospital compared to standard care (14.5% versus 28.9%). (AMSTAR 10/10)(75)	No evidence	No evidence	Yes	Children; Alberta; SE LHIN
	Motivational interviewing alone, motivational interviewing with feedback, motivational interviewing delivered with another intervention	Youth aged 13-18 who use one or more substances	Of the included intervention, 67% showed reductions in some type of substance use. All interventions delivered in group settings demonstrated positive outcomes, while 63% of those delivered in individual settings showed positive outcomes. No significant difference was found between interventions containing feedback or those coupled with other interventions, and those without. No significant difference was found between interventions with additional programs versus stand-alone motivational interviewing. The effectiveness of motivational interviewing was found to change significantly depending on client engagement, implicit cognition and perception of risk. However, readiness or intention to change had no effect on the effectiveness of motivational interviewing. (AMSTAR 6/9)(76)	No evidence	No evidence		
	Cognitive	Adults with	Group cognitive behavioural therapy showed a medium	No	No		

Category of service	Focus of studies of effectiveness		Evidence of effectiveness			Other information	
	Intervention	Participants/ setting	For all people	For people with co-morbidity	For other groups of concern	Offered now	Prioritized for other places or groups
	behavioural therapy (cognitive restructuring training and/or promoting behavioural change)	depression being treated in primary care	effect when compared to usual care immediately post treatment (standardized mean difference -0.55; 95% CI -0.78 to -0.32), with some evidence of this effect being maintained in the short term (standardized mean difference -0.47; 95% CI -1.06 to 0.12) and medium- to long-term follow-up (standardized mean difference -0.47; 95% CI - 0.87 to -0.08). There was a moderate effect in favour of individually delivered treatment over group treatment post-treatment (standardized mean difference 0.38; 95% CI 0.09 to 0.66), but no evidence of this continuing over follow-up periods. (AMSTAR 7/11) (54)	evidence	evidence		
	Multi-modal cognitive behavioural therapy	Individuals experiencing symptoms of depression and anxiety	Multi-modal cognitive behavioural therapy was effective for anxiety and depression in primary care. It was found more effective than no treatment (0.59), and than treatment as usual in primary care (0.48) for anxiety and depression symptoms. The combination of multi-modal cognitive behavioural therapy and primary care was more effective than primary care treatment as usual (0.37). A sub-group analysis found multi-modal cognitive behavioural therapy more effective for anxiety symptoms than depression. (AMSTAR10/11)(55)	No evidence	No evidence		
	Psychological treatments (face-to-face problem-solving, face-to-face interpersonal psychotherapy, psychoeducational intervention, remote therapist-led cognitive behavioural therapy, remote therapist-led problem-solving therapy, guided self-therapy, no or minimal contact cognitive behavioural therapy)	Adults seeking treatment for depression in primary care	Evidence showed that psychological treatments in primary care were effective interventions for depression. Small to moderate effect sizes were found for a number of different psychological therapies. Small effect sizes were found for: face-to-face problem-solving therapy (-0.14; 95% CI -0.40 to -0.14); face-to-face interpersonal psychotherapy (-0.24; 95% CI -0.47 to -0.02); other face-to-face psychological interventions (-0.28; 95% CI -0.44 to -0.12); and no minimal contact cognitive behavioural therapy (-0.27; 95% CI -0.44 to -0.10). More moderate effect sizes were found for remote therapist led cognitive behavioural therapy (-0.43; 95% CI -0.62 to -0.24), remote therapist-led problem-solving therapy (-0.56; 95% CI -1.57 to -0.45) and guided self-help cognitive behavioural therapy (-0.40; 95% CI -0.69 to -0.11). Comparison between these therapies found no significant differences in outcomes. (AMSTAR 8/11)(56)	No evidence	No evidence		

Category of service	Focus of studies of effectiveness		Evidence of effectiveness			Other information	
	Intervention	Participants/ setting	For all people	For people with co-morbidity	For other groups of concern	Offered now	Prioritized for other places or groups
	Cognitive bias modification interventions (attention bias modification and interpretive bias modification)	Adults receiving cognitive bias modification therapy	Cognitive bias modification interventions may have small effects on mental health outcomes, but firm conclusions were not possible with included studies, due to non-significant patient samples. (AMSTAR 8/11)(73)	No evidence	No evidence		
	Therapist-supported internet cognitive behavioural therapy, unguided cognitive behavioural therapy, and face-to-face cognitive behavioural therapy	Adults with anxiety disorders as defined by DSM or ICD	Therapist-supported internet cognitive behavioural therapy is an effect treatment for adults with anxiety. Significant improvement was seen in symptoms of anxiety following treatment (3.75; 95% CI 2.51 to 3.60) compared to waitlist, attention, information or online discussion group. A moderate to large effect for disorder-specific symptoms (standardized mean difference -1.06; 95% -1.29 to - 0.82) and general anxiety symptoms (-0.75; 95% CI -1.29 to -0.82) favoured therapist-supported internet cognitive behavioural therapy. At post-treatment there was no significant difference between unguided cognitive behavioural therapy and therapist-supported internet cognitive behavioural therapy for disorder-specific symptoms or general anxiety. Therapist-supported internet cognitive behavioural therapy showed no significant difference in improvement of anxiety over face-to-face treatment, or in improvement on disorder specific and general anxiety symptoms. (AMSTAR 11/11)(57)	No evidence	No evidence		
	Supportive therapy	Adults with schizophrenia	For the treatment of schizophrenia, no significant differences were found for relapse, hospitalization and general functioning when comparing supportive therapy and standard care. Supportive therapy was less effective than all other therapies including cognitive behavioural therapy (problem-solving therapy psychoeducation, family therapy and psychodynamic psychotherapy). These therapies had a 1.82 (95% CI 1.11 to 2.99) times reduction in hospitalization rates; 1.27 (95% CI 1.04 to 1.54) improvement in mental state; and 3.19 (95% CI 1.01 to 10.7) increase in satisfaction of treatment compared to supportive therapy. There was no difference in rate of relapse between the interventions. (AMSTAR9/10)(77)	No evidence	No evidence		
	Face-to-face and interactive online	Adults with bipolar disorder	The review provides evidence that psychological interventions are effective for people with bipolar disorder.	No evidence	No evidence		

Category of service	Focus of studies of effectiveness		Evidence of effectiveness			Other information	
	Intervention	Participants/ setting	For all people	For people with co-morbidity	For other groups of concern	Offered now	Prioritized for other places or groups
	psychoeducation, cognitive behavioural therapy and medication-adherence therapy		Interventions were found to reduce relapse rates at post-treatment (risk ratio 0.66, 95% CI 0.48 to 0.92) and follow-up (RR 0.74, 95% CI 0.63 to 0.87) for adults with bipolar disorder, in addition to a 32% reduction in hospital admissions when compared to treatment as usual. In addition, group therapy had a small effect on reducing depression relapses at post-treatment. (AMSTAR 10/10)(74)				
• Community treatment	Culturally adapted guidelines for treatment	Adult outpatients with depression and anxiety disorders	No evidence	No evidence	Adapting guidelines for community treatment of depression and anxiety disorders to be culturally sensitive was found to increase efficacy among ethnic minority patients, with a pooled standardized difference of 1.06 (95% CI 0.51 to 1.62). (AMSTAR 5/11)(60)	Yes	Children; SE LHIN; Alberta
	Prevention education, prevention policy and harm reducing, community healing and appropriate aftercare	Substance using adults within indigenous communities	No evidence	No evidence	No pooling was possible. Community-based alcohol and substance-abuse treatment programs, when adapted to culturally accepted		

Category of service	Focus of studies of effectiveness		Evidence of effectiveness			Other information	
	Intervention	Participants/ setting	For all people	For people with co-morbidity	For other groups of concern	Offered now	Prioritized for other places or groups
					norms are effective alternatives to traditional approaches. (AMSTAR 5/9)(78)		
	Psychotherapies (problem-solving therapy stepped care, internet-based cognitive behavioural therapy and life review	Community dwelling older adults with sub-threshold depression	A 50% reduction in depression symptoms was reported compared to control groups (odds ratio 5.21; 95% CI 2.01 to 13.49) for each of stepped care (risk ratio 0.49; 95% CI 0.24 to 0.98), internet cognitive behavioural therapy and life review (effect size 0.58). This effect did not hold for group cognitive behavioural therapy when compared to a control. A moderate effect size was reported on depression symptoms and mental health function for drug interventions when compared to placebo. (AMSTAR 7/9) (58)	No evidence	No evidence		
	Cognitive behavioural therapy, exercise and stress management	11-25-year-olds with reported anxiety or depression	Therapy was effective in reducing symptoms of anxiety and depression. Community programs were associated with positive outcomes in treating youth with small to moderate effect on anxiety (effective size ranges from 0.57 to 1.09) and small effects on depression (0.5 to 0.75), where cognitive behavioural therapy was the most common treatment and found to consistently lower symptoms. (AMSTAR 5/11) (59)	No evidence	No evidence		
• Brief intervention	Brief interventions, care coordination, and inpatient and outpatient treatment	Older adults who use substances	There was a lack of evidence to the specific mechanisms or treatments that work best for older populations. It was generally found, however, that treatment showed similar effects in older adults as among the general population. However, with greater treatment exposure, older adults tend to show better results. (AMSTAR 3/10)(126)	No evidence	No evidence	Yes, selectively	Children
	Screening and brief intervention (less than 30 minutes) by non-specialized personnel	Non-treatment seeking, harmful or hazardous drinking adults	Brief interventions in primary care were effective in reducing alcohol consumption (g/week) at both the six-month (mean difference -21.98 g/week; 95% CI -37.40 to -6.57) and 12-month follow-up (mean difference -30.86 g/week; 95% CI -46.49 to -15.23). Interventions were also effective at the six-month (mean difference -17.97 g/week; 95% CI -29.69 to -6.24) and 12-month (-18.21 g/week; 95% CI -26.71 to -9.70) follow-up in emergency department settings. (AMSTAR 7/11)(127)	No evidence	No evidence		

Category of service	Focus of studies of effectiveness		Evidence of effectiveness			Other information	
	Intervention	Participants/ setting	For all people	For people with co-morbidity	For other groups of concern	Offered now	Prioritized for other places or groups
	Technology-delivered brief interventions without therapist contact	Peripartum women who use substances	No meta-analysis was undertaken and the two randomized control trials included in the review found no significant difference between intervention and control. The remaining two studies, however, found a small positive effect on reducing drug use and increasing abstinence among peripartum women. (AMSTAR 6/9)(79)	No evidence	No evidence		
	Brief motivational sessions	Heavy alcohol users admitted to general hospital inpatient units	The review found that brief intervention services were effective in reducing alcohol consumption in heavy alcohol users when admitted to hospitals, finding a reduction at both six (mean difference -69.43 , 95% CI -128.14 to -10.72) and nine months (mean difference -182.88, 95% CI-360.00 to -5.76), but this is not maintained at one year. in the services were also effective in reducing the number of deaths at the six-month (risk ratio 0.42, 95% CI 0.19 to 0.94) and 12-month follow-up (risk ratio 0.60, 95% CI 0.40 to 0.91). The review found that screening alone and asking participants about their drinking patterns may have a positive impact on consumption levels. (AMSTAR 10/11) (81)	No evidence	No evidence		
	Brief alcohol screening intervention (goal setting, motivational interviews and feedback)	College and university students	Brief interventions were effective in reducing alcohol consumption among college students who use alcohol, and motivating them to undergo treatment with a difference in means of 1.5 drinks per week (95% CI -3.24 to -0.29), and in reducing alcohol-related problems (mean difference -0.87; 95% CI -1.58 to -0.20) at the 12-month follow-up, compared to control groups. (AMSTAR 5/11) (80)	No evidence	No evidence		
	Brief intervention (motivational interviewing)		Though no pooling was possible, the majority of studies included in the reviews showed some positive reductions in alcohol consumption, particularly surrounding harm minimization. Definitive conclusions on effectiveness were not possible. (AMSTAR 3/11)(82)	No evidence	No evidence		
• Family intervention	Counselling groups, family therapy, educational groups for relatives and educational lectures for relatives	Adults with schizophrenia or schizophrenia-like conditions	Results were mixed as to whether brief family interventions reduced the utilization of health services as the long-term outcomes were non-significant between intervention and control. Brief family intervention, however, did increase the understanding among family members about mental illness (mean difference 14.90, 95% CI 7.20 to 22.60). No outcomes were found for days in hospital, adverse events, medication compliance, quality of life, or satisfaction with care. (AMSTAR 10/11)(83)	No evidence	No evidence	Yes, selectively	Children; Alberta

Category of service	Focus of studies of effectiveness		Evidence of effectiveness			Other information	
	Intervention	Participants/ setting	For all people	For people with co-morbidity	For other groups of concern	Offered now	Prioritized for other places or groups
	Individual sessions, individual sessions with concurrent group sessions and family or group sessions	Adults who use alcohol in indigenous communities	No evidence	No evidence	Though no meta-analysis was possible, family-based interventions demonstrated a positive effect in reducing alcohol consumption among problem drinkers, and improving the coping of family members in indigenous communities. (AMSTAR 6/10)(29)		
Specialized consultation, assessment and treatment							
• Internet gaming disorders and problem gambling services	Psychological therapies (cognitive behavioural therapy, motivational interviewing and integrative therapy)	Adults with pathological and problem gambling	Cognitive behavioural therapy was effective in reducing gambling behaviour and other symptoms. Interventions were overall beneficial with effects ranging from medium for financial loss from gambling (standardized mean difference -0.52, CI 95% -0.71 to -0.33) to very large effects for gambling symptom severity (standardized mean difference -1.82, 95% CI -2.61 to -1.02). Likewise, motivational interviewing had small effects on reducing financial loss at zero- to three-month follow-up (standardized mean difference 0.41, 95% CI -0.75 to -0.07), and a larger effect on decreasing frequency of gambling at nine to 12 months (standardized mean difference -0.53, 95% CI -1.04 to -0.02). Integrative therapies were found to have no effects on post-treatment or gambling severity. (AMSTAR 11/11)(62)	No evidence	No evidence	Yes	SE LHIN
• Eating disorder	Group cognitive behavioural therapy	Adults with bulimia nervosa	Low-quality evidence found that group cognitive behavioural therapy resulted in a reduction in remissions from binges (relative risk 0.77, 95% CI 0.062 to 0.96) and on binge	No evidence	No evidence	Yes, selectively	SE LHIN

Category of service	Focus of studies of effectiveness		Evidence of effectiveness			Other information	
	Intervention	Participants/ setting	For all people	For people with co-morbidity	For other groups of concern	Offered now	Prioritized for other places or groups
programs and community therapy			frequency (relative risk -0.56, 95% CI -0.96 to -0.15), compared to no treatment. Evidence was insufficient to compare individual and group cognitive behavioural therapy. (AMSTAR 8/11)(84)				
	Internet-based cognitive behavioural therapy and email-based cognitive behavioural therapy	Adults with eating disorders	No meta-analysis was attempted. Internet-based cognitive behavioural therapy was more effective at reducing eating disorder psychopathology than waitlist or email-based cognitive behavioural therapy. In-person sessions increased study compliance and effectiveness of interventions. (AMSTAR 7/10)(63)	Less effective in individuals with co-morbidities	No evidence		
Psychosocial interventions							
• Social skills training	Individually focused instructions on skills, live or taped modelling, role-play rehearsal, and positive and corrective feedback	Adults with schizophrenia or schizoaffective disorder	Social skills training was found to be an effective intervention among individuals with schizophrenia. Interventions were found to improve various aspects of the negative symptoms and psychosocial functions of individuals with schizophrenia, including large mean effect size for understanding the material (1.20; 95% CI 0.96 to 1.43); a moderate mean effect size for performance-based measures of social and daily living skills (0.52; 95% CI 0.34 to 0.71); moderate mean effect size for negative symptoms (0.40; 95% CI 0.19 to 0.61); and a small mean effect size for other symptoms (0.15; 95% CI -0.01 to 0.31). (AMSTAR 7/10)(64)	No evidence	No evidence	Yes, selectively	Alberta
• Psychosocial education and skills-based training	Life skills program (individually focused teaching of daily life skills and activities)	Individuals with a chronic mental illness	Life skills training was shown to have no significant difference in performance of skills, did not worsen study retention, and did not significantly improve quality of life. Evidence shows that results are equivocal for individuals who receive life skills training, peer support or standard care. There is currently no evidence to show that life skills training is an effective intervention for individuals with chronic mental illness. (AMSTAR 10/11)(65)	No evidence	No evidence	Yes, selectively	SE LHIN
• Occupational services	Supportive employment programs	Adults with mental illness or co-occuring addictions and mental illness	Though no meta-analysis was undertaken, supportive employment was found to be effective for individuals with mental health challenges. Supportive employment was shown to have better outcomes than vocational rehabilitation. Across studies included in the review, supportive employment improved competitive employment rates, achieving between 58-60% for those receiving supportive employment compared to 23-24% for control groups.	No evidence	Review found that individuals from minority backgrounds were less likely to see improved employment	Yes, selectively	SE LHIN; Alberta

Category of service	Focus of studies of effectiveness		Evidence of effectiveness			Other information	
	Intervention	Participants/ setting	For all people	For people with co-morbidity	For other groups of concern	Offered now	Prioritized for other places or groups
			Insufficient evidence was available to determine the impact of supportive employment on non-vocational outcomes. (AMSTAR 8/11)(85)		outcomes. (AMSTAR 8/11)(85)		
• Psychosocial rehabilitation	Case management, residential treatments, counselling, and recreation and engagement programs	Individuals who use volatile substances	No evidence	No evidence	Results of the study did not allow for a meta-analysis and no randomized control trials were found. Weak evidence supports family therapy and activity-led interventions in treating volatile substance use for young and marginalized populations. (AMSTAR 6/10)(128)	Yes, selectively	SE LHIN
Self-management and support groups							
• Self-management resources	Self-management (medication management, recognition of early signs of relapse, development of plans to prevent relapse, and coping skills for persistent symptoms)	Adults with schizophrenia	Self-management training was found to be an effective intervention for individuals with schizophrenia. The intervention resulted in increased adherence to medication (odds ratio 2.57; 95% CI 1.57 to 4.19); a reduction in re-hospitalization (odds ratio 0.55; 95% CI 0.39 to 0.77); a reduction in symptom psychiatric severity (weight mean difference – 2.12; 95% CI -3.04 to -1.20); reduced negative symptoms (weighted mean difference 2.96; 95% CI -4.09 to -1.83); and reduced general symptoms (weighted mean difference -3.15; 95% CI -4.21 to -2.91). (AMSTAR 8/11)(66)	No evidence	No evidence	Yes, selectively	
	Integrative model of care including self-management component	Individuals categorized as having a serious mental illness	Meta-analysis was not possible. Inconclusive evidence as to whether self-management when part of an integrated care model improved the medical health of individuals with serious mental illnesses. Evidence from the review supports	No evidence	No evidence		

Category of service	Focus of studies of effectiveness		Evidence of effectiveness			Other information	
	Intervention	Participants/ setting	For all people	For people with co-morbidity	For other groups of concern	Offered now	Prioritized for other places or groups
			the use of peers or professional staff to implement health care interventions. (AMSTAR 6/10)(67)				
• Peer-run support groups	Support group	Individuals with chronic mental illness, depression and anxiety, or individuals undergoing bereavement	Evidence was limited but provided some support for mutual help groups. There was no evidence that these groups were differentially effective for certain types of problems. The review did not pool results. Reported benefits of involvement with mutual help groups for those with chronic mental illness was associated with the level of involvement. (AMSTAR 4/10)(68)	No evidence	No evidence	Yes, selectively	SE LHIN; Alberta
• Indigenous support groups/elders			No systematic reviews were identified			No	SE LHIN

Appendix A3: Summary of evidence on effectiveness from systematic reviews relevant to Element 3 – Defining the basket of services for those with severe and persistent mental illness and addictions

Category of service	Focus of studies of effectiveness		Evidence of effectiveness			Other information	
	Intervention	Participants/ setting	For all people	For people with co-morbidity	For other groups of concern	Offered now	Prioritized for other places or groups
Crisis services							
• Crisis intervention			See element 2				
Intensive treatment services							
• Early psychosis intervention	Training on early warning signs of psychosis	Individuals with schizophrenia	Training to recognize early warning signs of psychosis had a positive effect on the rates of relapse (23% versus 43%; risk ratio 0.53, 95% CI 0.36 to 0.79) and hospitalization (19% versus 39%; risk ratio 0.48, 95% CI 0.35 to 0.66). Interventions however, were implemented alongside other psychological interventions, reducing the reliability of evidence. (AMSTAR 9/11)(86)	No evidence	No evidence	Yes	Children; SE LHIN
	Interventions to prevent psychosis	Individuals at high risk of developing schizophrenia	Moderate effect of CBT on transition to psychosis at 12 and 18 months (risk ratio 0.54), and when combined with risperidone (risk ratio 0.63). Complex psychosocial interventions also had some effect on delaying onset or reducing transition (risk ratio 0.19). Omega-3 fatty acids supplementation for 12 weeks had low quality evidence of effect (risk ratio 0.18). (AMSTAR 8/10)(129)				
• Primary day/night care	Outpatient day hospital treatment	Adults with acute psychiatric disorders	Day hospital care was found to be as effective as inpatient care for treating people with acute psychiatric disorders, as no difference was found in days lost to follow-up (risk ratio: 0.94; 95% CI 0.82 to 1.08) or re-admittance after discharge (risk ratio 0.91; 95% CI 0.71 to 1.15). Moderate evidence points to the duration of admission being longer for day patients than inpatient care (weighted mean difference 27.47 CI 3.96 to 50.98). (AMSTAR 11/11) (87)	No evidence	No evidence	Yes, selectively	Children; SE LHIN
	Day hospital treatment (psychoanalytic psychotherapy, expressive therapy, community meetings and education)	Adults with schizophrenia	Evidence was found to be limited due to a lack of reporting on select outcomes and high degree of heterogeneity. Interventions may reduce time spent in inpatient care compared to outpatient appointments (risk ratio 0.71 CI 0.56 to 0.89). Findings on social functioning are equivalent for inpatient and outpatient services, however, there was some indication that hospital care may decrease the risk of unemployment (risk ration 0.86; 95% CI 0.69 to 1.06). Measures of	No evidence	No evidence		

Category of service	Focus of studies of effectiveness		Evidence of effectiveness			Other information	
	Intervention	Participants/ setting	For all people	For people with co-morbidity	For other groups of concern	Offered now	Prioritized for other places or groups
			mental state showed no difference in effect between inpatient and day hospital care. (AMSTAR 11/11) (97)				
• Assertive community treatment	Assertive community treatment	Homeless adults with severe mental illness	Assertive community treatment was effective when compared to standard case management in treating homeless populations. Assertive community treatment demonstrated 37% greater reduction in homelessness (95% CI 18%-55%) and a 26% (95% CI 7%-44%), and greater improvement in psychiatric symptoms compared to standard treatment among those with severe mental illnesses. No significant difference was found in hospitalization outcomes. (AMSTAR 9/10)(88)	No evidence	No evidence	Yes	SE LHIN; Alberta
	Assertive community treatment	Individuals with acute mental illness living in rural communities	Sufficient evidence was not available to draw firm conclusions. Both intensive case management and assertive community treatment were found to be effective interventions, however, due to the high service volume required, assertive community treatment may be a more feasible model for rural areas. Further, assertive community treatment may be successful in reducing rates of hospitalization over a two-year time frame based on the current evidence. (AMSTAR 4/10)(89)	No evidence	Rural communities		
• Intensive case management	Intensive case management (assertive community treatment and case management)	Adults with severe mental illness	Intensive case management was found to be an effective intervention for individuals with severe mental illness. Intensive case management when compared to standard community care significantly reduced the length of hospitalization (mean difference -0.86 CI -1.37 to -0.34) and increased retention to care (risk ratio 0.43 CI 0.30 to 0.61). Additionally, it was found to improve global state (mean difference 3.41; 95% CI 1.66 to 5.16). When compared with non-intensive case management, intensive case management was equivocal on service use, mortality, social functioning, mental state, behaviour, quality of life, satisfaction and costs, but was superior at retaining individuals in services (risk ratio 0.72 CI 0.52 to 0.99). (AMSTAR 7/11) (90)	No evidence	No evidence	Yes, selective	SE LHIN
• Intensive harm reduction and relapse	Computerized cognitive-behavioural therapy, combination	Adults with depression in primary care	Data was too limited to pool results. None of the interventions were shown to have a statistical superiority at preventing relapse or recurrence of depression. (AMSTAR 9/10)(98)	No evidence	No evidence	Yes, selectively	

Category of service	Focus of studies of effectiveness		Evidence of effectiveness			Other information	
	Intervention	Participants/ setting	For all people	For people with co-morbidity	For other groups of concern	Offered now	Prioritized for other places or groups
prevention	therapy, 10-step beating the blues program, and relapse prevention program						
	Antidepressants and psychological therapy (behaviour therapy, cognitive behavioural therapy, third-wave cognitive behavioural therapy, integrative therapies and psychodynamic therapies)	Adults 60 years of age and older, who were in remission or who had recovered from a diagnosed depressive episode	Review found mixed evidence on the use of antidepressants in the prevention and recurrence of depression, limiting a firm conclusion. However, antidepressants and psychological therapies, when compared to a placebo, were shown to significantly reduce the recurrence of depression among older adults by 33% (risk ratio 0.67, 95% CI 0.55 to 0.82) at 12 months. These results disappeared at both the 24 and 36-month follow-up. (AMSTAR 10/11)(99)	No evidence	No evidence		
	Concurrent care program (face-to-face appointments, telephone calls and postal contact)	Adults with depression	No meta-analysis was possible, and inadequate evidence was found to determine the clinical or cost effectiveness of low intensity interventions. (AMSTAR 8/10)(100)	No evidence	No evidence		
• Withdrawal management	Psychosocial interventions (contingency management and community reinforcement, behavioural treatments, structured counselling, and family therapy) and pharmacological treatments (methadone and buprenorphine)	Adults dependant on opioids	Psychosocial interventions combined with pharmacological detoxification treatments were effective when compared to pharmacological interventions alone, in reducing dropouts from treatment (risk ratio 0.71; 95% CI 0.59 to 0.85), decreasing the use of opiates during treatment (risk ratio 0.82; 95% CI 0.71 to 0.93) and at followup (risk ratio 0.66; 95% IC 0.53 to 0.82), as well as reducing clinical absences during the treatment (risk ratio 0.48; 95%CI 0.38 to 0.59). (AMSTAR 10/11)(101)	No evidence	No evidence	Yes, selectively	SE LHIN
	Magnesium for alcohol withdrawal	Adults admitted to hospital who	There is insufficient evidence to determine the effects of magnesium for the prevention or treatment of alcohol	No evidence	No evidence		

Category of service	Focus of studies of effectiveness		Evidence of effectiveness			Other information	
	Intervention	Participants/ setting	For all people	For people with co-morbidity	For other groups of concern	Offered now	Prioritized for other places or groups
	treatment	are addicted to alcohol	withdrawal in hospitalized adults. (AMSTAR 10/10)(102)				
	Benzodiazepine for withdrawal from alcohol	Adults experiencing withdrawal symptoms from alcohol	Benzodiazepines performed better than placebos for reducing seizures (risk ratio 0.16; 95% 0.04 to 0.69), however, they were not found to be statistically superior to other drugs for withdrawal with the exception of controlling seizures when compared against non anti-convulsants. Benzodiazepines were less effective compared with other drugs at reducing the severity of alcohol withdrawal symptoms at both 48 hours and at the end of treatment. (AMSTAR 10/11)(103)	No evidence	No evidence		
• Concurrent disorder treatment	Antidepressant medications	Adults with depressive disorders and harmful alcohol or substance use	Antidepressant medication was moderately effective for the treatment of depressive syndromes for at least six weeks among patients with concurrent depressive syndromes and alcohol or drug dependence (pooled effect size 0.38 95% confidence interval, 0.18-0.58; high heterogeneity across studies). Those with larger depression effect sizes (greater than 0.5) demonstrated favourable effects of medication on quantity of substance use. Antidepressants, however, should not be delivered on their own, but rather as part of a concurrent therapy directly with an intervention targeting addiction. (AMSTAR 9/11)(92)	No evidence	No evidence	Yes, selectively	SE LHIN
	Integrated model of care (cognitive behavioural therapy, motivational interviewing, skills training and contingency management)	Adults with severe mental illness and concurrent substance use	Results were unable to be pooled due to low-quality evidence, and therefore firm conclusions could not be reported. Individual studies, however, reported that long-term integrated care for concurrent mental illness and substance use was found to have no significant difference compared to standard care on loss to treatment, alcohol use, substance use, global assessment of functioning, or general life satisfaction. Motivational interviewing plus cognitive behavioural therapy did not reveal any advantage for retaining participants at 12 months, nor did it have a significant benefit for reducing substance use compared to treatment as usual. Cognitive behavioural therapy alone compared to treatment as usual showed no benefits in reducing cannabis use or improving mental state at six months. (AMSTAR 10/11)(93)	No evidence	No evidence		

Category of service	Focus of studies of effectiveness		Evidence of effectiveness			Other information	
	Intervention	Participants/ setting	For all people	For people with co-morbidity	For other groups of concern	Offered now	Prioritized for other places or groups
Intensive therapies							
• Cognitive behavioural therapy	Cognitive behavioural therapy (including cognitive therapy, psychoeducation, relaxation training, graded exposure, problems-solving training and behavioural activation training)	Older adults with anxiety disorders	The review confirms the effectiveness of cognitive behavioural therapy, and the intervention was significantly better at improving anxiety outcomes measures than waitlist or treatment as usual (effect size 4.64), but was non-significant when compared with active controls. For depression outcomes between zero and three months, there was a non-significant small effect size over active controls, but a larger effect size against non-active controls (2.18). Among anxiety outcomes, at the three-month follow-up and 12-month follow-up, non-significant effect sizes were found. However, a small but significant effect size was found at the six-month follow-up (-0.29). With respect to depression, pooled effects were not possible at three months, and at six and 12 months, small but non-significant effect sizes were reported. (AMSTAR 9/11)(105)	No evidence	No evidence	Yes	
	Third-wave cognitive behavioural therapy (extended behavioural activation, acceptance and commitment therapy, and competitive memory training)	Adults with depressive disorders	Limited findings suggest that third-wave cognitive behavioural therapy is more effective than treatment as usual for acute depression. Third-wave cognitive behavioural therapy increased clinical response rates compared to treatment as usual (risk ratio 0.51, 95% CI 0.27 to 0.95). No significant difference was found in terms of treatment acceptability based on drop-out rates. (AMSTAR 10/10)(106)	Reduced effect in the presence of memory decline; cognitive impairment and multiple comorbid physical disorders in individuals over 74 years.	No evidence		
	Cognitive behavioural therapy	Adults with schizophrenia or schizophrenic-like symptoms	Cognitive behavioural therapy was found to have a small effect on overall schizophrenic symptoms (pooled effect size 0.33, 95% CI -0.47 to -0.19), a small effect on positive symptoms (-0.25 95% CI -0.37 to -0.13), and a small effect on negative symptoms (-0.13 95% CI -0.25 to -0.01). (AMSTAR 8/11)(108)	No evidence	No evidence		
	Multi-modal cognitive behavioural therapy	Adults with symptoms of anxiety and/or	The review found that multi-modal cognitive behavioural therapy was effective in the treatment symptoms of anxiety and depression in primary care.	No evidence	No evidence		

Category of service	Focus of studies of effectiveness		Evidence of effectiveness			Other information	
	Intervention	Participants/ setting	For all people	For people with co-morbidity	For other groups of concern	Offered now	Prioritized for other places or groups
		depression in primary care	Multi-modal cognitive behavioural therapy was more effective at treating anxiety and depression symptoms than both no primary-care treatment (0.59) and primary-care treatment as usual (0.48). Multi-modal cognitive behavioural therapy combined with primary-care treatment was shown to be more effective than treatment as usual for depression (0.37). The strongest levels of effectiveness among delivery methods were found for face-to-face cognitive behavioural therapy as compared to computerized/online and guided self-help. (AMSTAR 8/11)(55)				
	Internet-based cognitive behavioural therapy	Adults diagnosed with depression or anxiety according to the DSM	Internet cognitive behavioural therapy was found to be an effective treatment for anxiety in adults. The review found an improvement in anxiety at post-treatment for depression and anxiety favouring therapist-supported internet cognitive behavioural therapy over a waitlist, attention information or online discussion group (pooled risk ratio 4.18 95% CI 2.42 to 7.22). There were no statistically significant clinical improvements in anxiety or disorder-specific symptoms. Evidence of a significant decrease in general anxiety following internet cognitive behavioural therapy was found immediately after treatment (standard mean difference (-0.79, 95% CI -1.10 to -0.48), but no clear difference between unguided cognitive behavioural therapy and therapist-supported internet-based cognitive behavioural therapy at post-treatment was found on either disorder-specific symptoms or general anxiety symptoms. (AMSTAR 11/11)(57)	No evidence	No evidence		
	Second generation antidepressants and cognitive behavioural therapy	Adults with major depressive disorder diagnoses	Evidence found no difference in the treatment of adults with major depressive disorder through either second-generation antidepressants or cognitive behavioural therapy. (AMSTAR 10/11)(109)	No evidence	No evidence		
	Cognitive behavioural therapy	Adults who have harmful cannabis use	A meta-analysis was not possible, though cognitive behavioural therapy, and to a lesser extent motivational interviewing, improved outcomes among cannabis users. Cognitive behavioural therapy proved significantly better than waitlist following treatment on reduction of				

Category of service	Focus of studies of effectiveness		Evidence of effectiveness			Other information	
	Intervention	Participants/ setting	For all people	For people with co-morbidity	For other groups of concern	Offered now	Prioritized for other places or groups
			cannabis use, severity of dependence and cannabis problems. Some evidence exists that supportive expressive dynamic psychotherapy improved abstinence rates from cannabis and symptom severity compared to waitlist. Studies examining motivational interviewing found mixed results with some pointing to improvements over waitlists. There is some evidence that cognitive behavioural therapy of between six and 14 sessions may be more effective than brief motivational interviewing, and that the addition of vouchers to these interventions may increase long-term outcomes of a reduction in cannabis use. (AMSTAR 9/10)(107)				
• Transcranial magnetic stimulation	Transcranial magnetic stimulation	Adults diagnosed with schizophrenia	The review found insufficient evidence to determine whether transcranial stimulation is an effective treatment for adults with schizophrenia. However, some positive results were seen when comparing temproprioprietal transcranial magnetic stimulation to a placebo for both global state (mean difference -0.5; 95% CI -0.76 to -0.23) and reduction in positive symptoms (mean difference -6.09; 95% CI -10.95 to -1.22). An increase in headache was reported for those receiving temproprioprietal transcranial magnetic stimulation. No significant difference was reported in studies comparing temproprioprietal transcranial magnetic stimulation to treatment as usual, nor were they found for frontal transcranial magnetic stimulation when compared to placebo treatment. (AMSTAR 10/11)(110)				
	Repetitive transcranial magnetic stimulation	Adults who have been diagnosed with a panic disorder	No pooling was possible for this review. Two studies were included, where one found evidence in favour of prefrontal repetitive transcranial magnetic stimulation compared to a placebo while the other found no significant difference. (AMSTAR 10/11)(111)				
	Repetitive transcranial magnetic stimulation	Adults diagnosed with depression	Review found no strong evidence of the use of repetitive transcranial magnetic stimulation for the treatment of depression. No significant difference was found either between repetitive transcranial magnetic stimulation and a placebo, or for repetitive transcranial magnetic stimulation when compared to other treatments. Some positive effects were reported at the two-week				

Category of service	Focus of studies of effectiveness		Evidence of effectiveness			Other information	
	Intervention	Participants/ setting	For all people	For people with co-morbidity	For other groups of concern	Offered now	Prioritized for other places or groups
			timeframe after treatment for the repetitive transcranial magnetic stimulation on the left dorsolateral prefrontal cortex when applied with high frequency, however, it showed no significant difference when compared with electroconvulsive therapy. (AMSTAR 10/11)(112)				
• Dialectic behavioural therapy	Dialectic behavioural therapy	Adults diagnosed with borderline personality disorder	The review found dialectic behavioural therapy to be an effective treatment for borderline personality disorder patients. A moderate effect size was reported for dialectic behavioural therapy on borderline personality disorder reported from included randomized control trials (effect size 0.39; 95% CI 0.10 to 0.68). A smaller effect size was reported when comparing dialectic behavioural therapy to borderline specific treatments (effect size 0.11; 95% CI -0.20 to 0.42). A small effect size was reported for suicidal and self-injurious behaviours (0.37; 95% CI 0.17 to 0.57). The overall effect of dialectic behavioural therapy was shown to decrease at follow-up. (AMSTAR 10/11)(113)				
• Case management services	Case management	Adults with alcohol and other drug-use disorders	Evidence found that case management was effective at enhancing the coordination between other services. Case management was found to have a small but not significant effect in reducing illicit drug use among substance users. When combined with other treatment services, case management had a moderate effect at reducing substance use (standardized mean difference 0.42, 95% confidence interval=0.21 to 0.62). (AMSTAR 11/11)(94)	No evidence	Mixed results were found for case management for justice-involved individuals who use substances, with one study reporting no significant results in drug use, HIV risk behaviour or reoffending, while another reported statistically significant reduction in	Yes	SE LHIN

Category of service	Focus of studies of effectiveness		Evidence of effectiveness			Other information	
	Intervention	Participants/ setting	For all people	For people with co-morbidity	For other groups of concern	Offered now	Prioritized for other places or groups
					drug abuse. (AMSTAR 11/11)(96)		
	Intensive case management (assertive community treatment, assertive outreach and case management)	Adults with schizophrenia and psychosis, severe mood problem or personality disorder	Intensive case management was found to be an effective intervention for those with severe mental illnesses. Intensive case management was shown to have statistical superiority over standard hospital care for length of hospitalization (mean difference -0.86 CI -1.37 to -0.34), and an increase in retention to care (risk ratio 0.43 CI 0.30 to 0.61) for patients with severe mental illness. No differences were found for mental state, social functioning or quality of life. Additionally, the review found that the closer the model of intensive case management adheres to assertive community treatment, the more effective it is at reducing length of time in hospital. (AMSTAR 7/11)(90)	No evidence	No evidence		
• Addictions transitional case management services			No reviews were found	No evidence	No evidence	No	
Transition services							
• Transition from youth to adult services	Transition interventions (wrap around, cross-system provider communication and collaborative care planning)	Youth who are aging into adult services	Heterogeneity precluded pooling, however transition programs for youth, which adopted individualized assessments and a lifespan approach were successful in supporting the transition between youth and adult services. Other successful programs included social educational, occupational, behavioural and cognitive interventions aimed at long-term recovery. (AMSTAR 7/10)(95)	No evidence	No evidence	No	
• Transition from acute care to the community	Short stay hospitalization (as compared with longer stays)	Adults with severe mental illness in need of hospitalization	No pooling was possible. Low-quality evidence found no significant difference in death, mental state or readmission to hospital between short-term and long-term stays in hospital. Evidence found that a short-term stay did not result in readmissions or disjointed care for adults with severe mental illness. Short-stay hospitalization was associated with an increase in social functioning (risk ratio 0.61, CI 0.50 to 0.76). (AMSTAR 10/11)(114)	No evidence	No evidence	Yes	SE LHIN; Alberta

Category of service	Focus of studies of effectiveness		Evidence of effectiveness			Other information	
	Intervention	Participants/ setting	For all people	For people with co-morbidity	For other groups of concern	Offered now	Prioritized for other places or groups
	Discharge planning in mental health care from inpatient to outpatient	Mental health care institution/ hospital	Discharge planning was found to be effective. Discharge planning resulted in: a lower readmission rate (risk ratio 0.66 95% CI = 0.51 to 0.84); an improvement in overall quality of life (risk ratio 0.11 95% CI 0.05 to 0.28); and an increase in adherence to continuity of care (risk ratio 1.25, 95% CI 1.07 to 1.47) among people with mental health disorders. (AMSTAR 5/11)(115)	No evidence	No evidence		
	Acute continuous day hospital, assertive outreach care and acute home services	Adults in need of acute mental health services	No meta-analysis was undertaken. A critical analysis of the literature suggested that each of acute continuous day care and hospitals, assertive outreach care, and home acute care had positive effects on social function, long-term follow-ups and improvement in mental state. High levels of patient satisfaction have been reported for assertive outreach in comparison to other services. There is evidence to suggest that home acute care is associated with reductions in hospital admission, increases in patient symptomatic recovery and social adaptation, and reduces family burden. (AMSTAR 2/9)(116)	No evidence	No evidence		
	Pre-discharge interventions (psychosocial skills training and discharge planning), post-discharge interventions (telephone follow-up, psychiatric follow-up, home visits and peer support); bridging interventions (communication with other providers, transitional manager; and meeting with outpatient provider)	Adults transition from inpatient to outpatient mental health services	Transitional interventions were found to be effective, with an absolute risk reduction of 13.6 to 37% across interventions. Heterogeneity in studies precluded a meta-analysis. Among interventions there was substantial variability in readmission rates, ranging from 7 to 23% at three months and 0 to 63% at six months. Effective components of transition interventions for psychiatric admissions were found to be pre- and post-discharge patient psychoeducation, structure needs assessment, medication reconciliation and education, transition managers and inpatient/outpatient provider communication. (AMSTAR 3/9)(117)	No evidence	No evidence		

Category of service	Focus of studies of effectiveness		Evidence of effectiveness			Other information	
	Intervention	Participants/ setting	For all people	For people with co-morbidity	For other groups of concern	Offered now	Prioritized for other places or groups
Social determinant support							
• Clubhouse			No systematic reviews found			Yes, selectively	
• Housing support	Long-term residential programs and integrated residential dual-disorder programs	Adults with severe mental illness and co-occurring substance use	The review suggests that integration of substance abuse and mental health treatments improved outcomes among adults with severe mental illness and co-occurring substance use. Though no meta-analysis was undertaken, positive effects of both short- and long-term residential treatments were found for individuals with severe mental illness and co-occurring substance use disorders, particularly for homeless and treatment non-responding populations. (AMSTAR 5/10)(118)	No evidence	A single study examining incarcerated people reported no difference between a dual treatment program and a therapeutic program on re-incarceration rates or substance-related crime at the one-year follow-up.	Yes, selectively	
	Permanent housing and support combined with assertive community treatment and intensive case management	Homeless adults with mental illness	No meta-analysis was undertaken. Housing and support interventions found significant reductions in homelessness and hospitalization. Programs that combined e-housing and support had a moderate effect size (0.67) compared to assertive community treatment (0.47) and intensive case management (0.28) on housing outcomes. (AMSTAR 5/10)(120)	No evidence	No evidence		
	Planning for housing during hospital discharge	Homeless adults with acute mental illness and concurrent conditions	A meta-analysis was not possible due to high levels of heterogeneity. Mixed results were found regarding the provision of housing during discharge planning from the hospital for homeless individuals, on outcomes of stable housing, with nine of 10 studies reporting positive effects and one finding no significant difference. These nine studies included in the review found that coordinated treatment programs for homeless adults resulted in better health and access to health care than treatment as usual. (AMSTAR 9/10)(130)	No evidence	No evidence		

Category of service	Focus of studies of effectiveness		Evidence of effectiveness			Other information	
	Intervention	Participants/ setting	For all people	For people with co-morbidity	For other groups of concern	Offered now	Prioritized for other places or groups
• ODSP, OW and CPP advocacy			No systematic reviews found			No	SE LHIN
• Social recovery, rehabilitation and recreation	Social skills training	Adults with schizophrenia	Social skills training was found to be an effective intervention among individuals with schizophrenia. Interventions were found to improve various aspects of the negative symptoms and psychosocial functions of individuals with schizophrenia, including large mean effect size for understanding the material (1.20; 95% CI 0.96 to 1.43), a moderate mean effect size for performance-based measures of social and daily living skills (0.52; 95% CI 0.34 to 0.71), moderate mean effect size for negative symptoms (0.40; 95% CI 0.19 to 0.61), and a small mean effect size for other symptoms (0.15; 95% CI -0.01 to 0.31). (AMSTAR 7/10)(64)	No evidence	No evidence	Yes, selectively	SE LHIN; Alberta
	Group help sessions	Adults with chronic mental illness, depression; anxiety or bereavement	Evidence was limited but provided some support for mutual help groups. There was no evidence that these groups were differentially effective for certain types of problems. The review did not pool results. Reported benefits of involvement with mutual help groups for those with chronic mental illness was associated with the level of involvement. (AMSTAR 4/10)(68); (AMSTAR 7/10)(68)	No evidence	No evidence		
• Vocational and employment services			See element 2			Yes, selectively	
Justice-related services							
• Diversion and court support			No systematic reviews identified			Yes, selectively	SE LHIN
• Back-on-track	Education programs, interlock interventions, victim impact panels, intensive supervision programs, drug	Adults who have been convicted of driving under the influence	Meta-analysis was not feasible due to insufficient data. Ignition interlock was reported as effective while the device was in place, however, recidivism rates increased after its removal. Education programs that included other components such as motivation enhancement were effective at reducing repeat offenses after the programs' completion. Victim impact panels had mixed			Yes, selectively	

Category of service	Focus of studies of effectiveness		Evidence of effectiveness			Other information	
	Intervention	Participants/ setting	For all people	For people with co-morbidity	For other groups of concern	Offered now	Prioritized for other places or groups
	court, and other interventions		results showing either no difference between the intervention and control, or an increase in the number of re-arrests after the panels. Mixed results are reported for intensive supervision programs with two studies reporting recidivism rates up to five years following arrest, while another found no significant difference. Other studies examined interventions and found that the use of fines and mandatory licence withdrawal effectively reduced recidivism, and serving fewer than 120 days in prison was associated with the highest levels of recidivism, lower than those serving between four and six months. Comparison between these interventions was not possible, but multi-component interventions appear more successful than those targeting one aspect. (AMSTAR 5/10)(121)				
• Forensic services			No systematic reviews identified			Yes	SE LHIN

APPENDICES B1-3

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 individuals living with co-morbidities that may affect treatment effectiveness, or individuals for whom challenges in service delivery or broader contextual factors may affect treatment effectiveness. Similarly, for each economic evaluation and costing study, the last three columns note whether the country focus is Canada, if it deals explicitly with one of the prioritized groups, and if it focuses on individuals living with co-morbidities that may affect treatment effectiveness or individuals for whom challenges in service delivery or broader contextual factors may affect treatment effectiveness.

All of the information provided in the appendix tables was taken into account by the evidence brief's authors in compiling Tables 4-6 in the main text of the brief.

Appendix B1: Systematic reviews relevant to Element 1 – Defining the basket of services for the general population and those at risk of mental illness and/or substance use problems

Element	Services	Intervention	Focus of systematic review or economic evaluation	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
Services for the general population and those at risk of mental illness and substance abuse	Mental health promotion	Stigma reduction	Effectiveness of workplace anti-stigma interventions (19)	The aim of this review was to determine the effectiveness of workplace anti-stigma interventions. In this review, 16 studies were included, reporting on anti-stigma interventions, Mental Health First Aid, online training, anti-stigma workshops, pyschoeducation and crisis intervention training. The review showed evidence that each of these were effective in increasing mental health literacy, in improving workers' attitudes towards mental illness, and at increasing levels of supportive behaviour towards those with mental illness. An additional two studies examined participant mental health as a secondary outcome and reported a positive impact of anti-stigma intervention. The one study that examined cost-effectiveness deemed anti-stigma interventions to be cost-effective. Five of 11 studies conducted two-year follow-up visits and report that changes achieved from these interventions had been, at least in part, sustained.	2014	9/9 (AMSTAR rating from McMaster Health Forum's Impact Lab)	4/16	0/16
			Effectiveness of mass-media interventions on reducing prejudice and discrimination (17)	The aim of this review was to determine the effectiveness of mass-media interventions on prejudice and discrimination of the general population towards those who are mentally ill. This review included 22 studies, which used a variety of mass-media interventions. Authors note however, that many of these studies were of low quality, particularly those examining costs of interventions. Overall, the findings from these studies examining discrimination showed mixed results and were unable to	2011	11/11 (AMSTAR rating by the McMaster Health Forum)	1/22	0/22

Element	Services	Intervention	Focus of systematic review or economic evaluation	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
				determine the effect of mass-media interventions. However, studies that looked to prejudice indicate that mass media may have a small effect in reducing prejudice.				
			Effectiveness of education, consumer contact and cognitive behavioural therapy in reducing personal, perceived and internalized stigma (31)	The review aimed to assess the effectiveness of education, consumer contact and cognitive behavioural therapy at reducing personal, perceived and internalized stigma. The results reported that overall the interventions were effective in reducing personal stigma. Specifically, there was evidence that interventions with an educational component and consumer contact were effective, but there was no evidence to show that cognitive behavioural therapy was effective in reducing personal stigma. This pattern was consistent for both interventions delivered online via computer and those with a non-internet delivery, as well as across depression, psychosis and schizophrenia. Interventions focused on reducing both perceived stigma and internalized stigma were not found to be effective and require investigation. Authors note however, that interventions delivered via the internet were at least as effective those delivered face-to-face.	2012	7/11 (AMSTAR rating by the McMaster Health Forum)	0/33	2/33
			Effectiveness of interventions focused on reducing stigma related to substance use disorders (37)	While more than half of the studies reported achieving positive results across stigma-related outcomes including shame, perceived stigma, stigma-related rejection, self image, social distance and attitudes towards society, the lack of research, and diversity of studies included in the review prevent sweeping remarks from being made. The review however did reveal that ACT resulted in significantly decreased shame and internalized stigma among people with substance use disorders. Authors state that this is consistent with other literature, which shows that the best way to change public attitudes towards substance use disorders is through communication	2010	8/9 (AMSTAR rating by the McMaster Health Forum)	2/13	0/23

Element	Services	Intervention	Focus of systematic review or economic evaluation	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
				strategies. In contrast, studies using educational literature such as pamphlets were shown to have little effect. Authors of this review acknowledge its limitations particularly with regards to the lack of comparison across studies.				
		Befriending interventions	Effects of befriending on depressive symptoms and distress(18)	Studies included in this review compared befriending services and usual care, as well as befriending services with alternative psychological treatments. These services were provided to individuals with a number of mental illnesses including pregnant and postnatal women, people with schizophrenia and depression, and select other chronic diseases. While befriending services proved somewhat effective when compared with no treatment, they were not seen to meet the defined threshold for a recommendation of adoption (standardized mean difference of 0.5), and did not sufficiently lessen depressive symptoms. Befriending proved less effective than cognitive behavioural therapy for adolescents with depression, and to medication resistant individuals with schizophrenia. Of three cost-effectiveness studies, only one provided evidence that befriending could be cost-effective. Despite these results, researchers hypothesize that there may still be advantages to adopting befriending services, including as a low-cost intervention and for helping to support individuals through social inclusion.	2008	10/11 (AMSTAR conducted by the McMaster Health Forum)	2/24	2/24
		Suicide awareness education and information	Impact of public awareness campaigns about depression and suicide (33)	The review categorized public-awareness campaigns by short media campaigns, gatekeeper-training programs, long programs conducted nationally and long programs conducted locally. Almost all of the interventions focused on increasing awareness and public education surrounding depression and suicide crises.	2007	5/10 (AMSTAR rating by McMaster Health Forum)	0/15	2/15

Element	Services	Intervention	Focus of systematic review or economic evaluation	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
				Authors note that there were serious methodological limitations with assessing impact of the interventions, as only one of the studies was a randomized control trial, while the others were cohort studies with high loss to follow-up results. Reviews do suggest that public awareness and information about suicide and depression do improve the knowledge and awareness of mental illness in the population in the short term. The reviews also suggest that campaigns assist in developing more positive attitudes towards people with mental illness and social acceptance. The impacts of campaigns on public behaviour are less clear. Authors discuss how interventions coupled together (e.g. media campaign with education material or media campaign and training of gatekeepers) appeared more effective than single strategies. The review also makes clear that local interventions, with messages tailored to specific populations, were more effective than those implemented on a national scale.				
		Promoting well-being in the workplace	Effectiveness of workplace anti-stigma interventions (19)	This review examined the effectiveness of workplace anti-stigma interventions in terms of individuals' knowledge of mental disorders, attitudes towards people with mental health problems, and changes in supportive behaviour among colleagues. Interventions included mental health first aid, role-play, online training, psychoeducation, workshops, trauma risk management and crisis intervention training. Ten of 11 anti-stigma interventions were effective in increasing levels of knowledge of mental illness. The exception was mental health first aid training, which did not result in improved mental health literacy. The effectiveness of interventions on changing attitudes	2014	9/9 (AMSTAR rating from McMaster Health Forum)	4/16	0/16

Element	Services	Intervention	Focus of systematic review or economic evaluation	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
				of participants was mixed, with nine studies reporting effectiveness for specific interventions of trauma risk management, online training, crisis intervention and workshops. Eleven studies focused on behaviour and were all shown to have positive effects on employees' supportive behaviour, including perceived efficacy of identifying and dealing with people with mental health concerns as well as the likelihood of advising someone to seek professional help. Five studies included a follow-up and showed that all studies where changes were achieved were maintained, at least in part, over time. The authors discuss that findings from these studies corroborate those also found in the general population. In addition, they discuss advantages to workplace interventions including greater ability to target interventions as well as the ability to make work programs mandatory.				
			Impact of workplace physical-activity interventions on mental health outcomes (21)	The review examined whether physical activity (i.e. aerobic dance, weight training, strength or resistance training) and yoga exercise were an effective intervention to improve mental health outcomes. The review included 17 studies, 13 of which were randomized control trials. The other four were comparison trials and control trials. Seven studies examined physical activity against control groups, but only one high-quality study showed an improvement in stress scores. No effect was found for the effectiveness of physical activity on anxiety, though there was a reduction in stress among those who received the intervention for longer than 12 months. Studies found that	2013	4/10 (AMSTAR rating by the McMaster Health Forum)	0/17	0/17

Element	Services	Intervention	Focus of systematic review or economic evaluation	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
				individuals receiving both exercise training and behaviour modification significantly reduced depression scores. Yoga practice was shown in two low-quality studies to reduce stress as well as anxiety. Compared with baseline mental health scores, significant improvements in stress and anxiety were observed for both physical activity and cognitive behavioural therapy, however at six months following the intervention results had not continued. The effect of cognitive behavioural therapy, however, was found to yield a higher effect size. The review also showed a reduction in perceived stress among individuals participating in aerobic exercise. Overall, studies that combined exercise with behaviour modification were found to be effective in improving mental health outcomes.				
			Effectiveness of psychosocial interventions on workplace mental health (131)	The aim of this review was to identify effective mental health programs and interventions that promote mental health and prevent mental and behavioural disorders at the workplace. The review included 79 studies examining the following interventions: skills training, improvement of occupational qualifications, working conditions improvement, relaxation, physical exercise and multi-component interventions. Due to methodological limitation, a meta-analysis could not be performed and the review instead provided examples of effective interventions. One high-quality study that examined workplace organizational structure found that it might significantly hinder intervention results. A separate high-quality study showed positive results from social motivational training, whereby employees who participated in this intervention demonstrated greater responsibility, intentionality, sympathy and readiness to cooperate. In addition, the	2009	6/11 (AMSTAR rating by the McMaster Health Forum)	5/79	0/79

Element	Services	Intervention	Focus of systematic review or economic evaluation	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
				study showed changes in participants' social motivation with an increase in pro-social and decrease in anti-social behaviour. Overall, comparing the effectiveness of interventions was not possible. However, five of the most effective interventions stressed the importance and role that the organization and workplace structure has in facilitating changes.				
	Mental illness and substance abuse prevention	Suicide prevention	Impact of suicide-prevention interventions and referral/follow-up services (123)	The review found no randomized controlled trial studies of self-directed violence-prevention interventions in the military or for veterans. There are mixed results for the interventions conducted outside of veteran and military settings, which includes pharmacotherapy and psychotherapy. No interventions were effective over others. The review found no randomized controlled trial studies of suicidal self-directed violence-prevention referral and follow-up services in military or for veterans. There is insufficient to low-quality evidence for the effectiveness of any referral and follow-up services in prevention of self-directed violence. No intervention was effective over others in the prevention of suicidal or self-directed violence. One review reported that there is limited information related to costs. The review suggests to clinicians that they should consider which intervention is likely to be effective based on the prior conditions of the veteran or military service member.	2011	6/11 (AMSTAR rating by the McMaster Health Forum)	Not reported in detail	0/72

Element	Services	Intervention	Focus of systematic review or economic evaluation	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
			Effectiveness of interventions implemented in the post-secondary setting to reduce the rate of suicide and associated factors among students (38)	This review aims to identify effective primary-prevention interventions among post-secondary students. The review included eight studies, two randomized control trials and five controlled before-and-after studies. All interventions included primary and secondary suicide-prevention components. Classroom-based instructions programs were found to greatly increase short-term knowledge of suicide and increased knowledge of suicide prevention, but had no significant increase on suicide prevention self-efficacy. Policy-based interventions, including means restrictions and mandatory assessments for suicidal behaviour, were found to reduce rates of completed suicide. Finally, gatekeeper-training programs were found to yield differences in effectiveness with one trial reporting enhanced short-term knowledge of suicide and one reporting no significant impact. In this case, intervention duration appeared to be an important factor in influencing results, with knowledge of suicide prevention and self-efficacy improving for longer interventions. Overall, these programs were found to increase short-term knowledge of suicide and suicide prevention, and gatekeeper training may improve suicide prevention self-efficacy.	2013	11/11 (AMSTAR rating by McMaster Health Forum)	0/8	3/8
			Effectiveness of suicide prevention interventions targeting indigenous populations (24)	The purpose of this review is to examine the effectiveness of suicide-prevention interventions targeting indigenous populations. This systematic review included nine intervention evaluations of community prevention interventions, gatekeeper training and education programs. Gatekeeper training resulted in a significant short-term increase in participants' knowledge and confidence in	2012	5/10 (AMSTAR rating from McMaster Health Forum)	1/9	9/9

Element	Services	Intervention	Focus of systematic review or economic evaluation	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
				identifying individuals at risk of suicide. When education interventions were culturally tailored, participants were less suicidal and reported fewer feelings of hopelessness. A one-off multi-media intervention significantly improved knowledge of risk behaviours. Community prevention interventions reported differing outcomes, two of four interventions reported reductions in rates of suicide and suicidal behaviour, while the two others reported increases in protected behaviours in youth exposed to the intervention.				
			Impact of suicide-prevention programs for indigenous youth (23)	The review aims to assess evaluated suicide programs aimed at indigenous youth. Eleven articles were identified evaluating nine programs, six of which were conducted in a school setting. All nine programs were culturally tailored to their population and reported favourable outcomes, however, most study designs were not rigorous enough to result in reliable evidence of intervention effect. The three interventions with the highest levels of effectiveness were all programs with community involvement and ownership. Overall, while the studies were not able to provide reliable evidence on effectiveness, the review revealed the importance of community-integrated development and youth involvement in the design of primary suicide-prevention interventions targeted at indigenous youth.	2012	5/11 (AMSTAR rating from McMaster Health Forum)	0/11	11/11
			Impact of interventions for adolescents and young adults in reducing suicide attempt, deliberate self-harm or suicidal ideation	This study aims to conduct a systematic review of all randomized controlled trials testing interventions for adolescents and young adults (12-25) who have presented to a clinical setting with suicidal ideation, suicidal attempt and deliberate self-harm. Included studies used a variety of different interventions. Psychological therapy demonstrated some effectiveness	2010	7/11 (AMSTAR rating from the McMaster Health Forum)	0/21	21/21

Element	Services	Intervention	Focus of systematic review or economic evaluation	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
			(40)	when compared with treatment as usual. But this effect was not evident when compared with a control intervention. One study comparing dialectic behavioural therapy with client-centred therapy in people with borderline personality disorders found fewer suicide attempts and less suicide ideation. Cognitive behavioural therapy showed positive effects compared to treatment as usual, reporting less self-harm at the nine-month follow-up. None of family interventions, youth-nominated support intervention or emergency-access intervention showed significant effectives in any of the outcomes of interest. Overall, the review shows evidence that CBT-based interventions report a positive effect among adolescents and young adults.				
			Effectiveness of suicide prevention programs for elderly adults (132)	Review examines the effectiveness of interventions aimed at suicidal elderly persons. A total of 11 different interventions across 19 articles were included. The interventions included primary-care collaborative treatment strategies, community-based outreach interventions, telephone counselling, clinical treatment, and interventions to improve resilience. Of these 11 interventions, nine focused on risk predictors, with interventions such as depression screening, information, treatment options, use of medications and interventions to reduce social isolation. Of these nine studies, six reported positive outcomes associated with a reduction in the level of patients' suicidal ideation or suicide rate in participating community. The other three studies used depression measures, of which two reported significant reductions in reported rates of depressive symptoms. A gender-analysis was conducted in select studies and showed that programs benefited women more than men.	2009	1/10 (AMSTAR rating by the McMaster Health Forum)	Not reported	0/11

Element	Services	Intervention	Focus of systematic review or economic evaluation	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
				In addition, the analysis confirmed that women were more likely than men to use social resources and mental health services. Older men were found less inclined to seek medical advice and more receptive to intervention programs that focused on action and problem solving. Overall, all types of prevention programs were found effective in the population they targeted, however none stood out from the others for their effect on measured outcome variables.				
		Workplace screening for depression and anxiety	Impact of intervention practices for depression in the workplace (26)	The review aimed to identify workplace interventions for managing workers' depression and to reduce associated productivity losses. The review identified 14 papers from 12 studies, 10 of which were randomized controlled trials and two of which were non-randomized studies. Interventions include psychological interventions, enhanced primary care, enhanced psychiatric care, enhanced occupational physician roles, integrated care management, exercise and a worksite intervention. Low-quality evidence from the included studies precludes authors from recommending one intervention as effective. This finding is consistent with previous literature reviews.	2010	7/10 (AMSTAR rating from McMaster Health Forum)	1/15	0/15
		Screening for alcohol misuse in primary care	Effectiveness of electronic screening and brief interventions for reducing alcohol consumption (35)	This review aims to determine the effectiveness of electronic screening and brief intervention over time in non-treatment-seeking hazardous and harmful drinkers. Seventeen studies were included in this meta-analysis and examined the reduction in grams of ethanol consumed per week. The majority of these studies were conducted on student populations. A statistically significant difference was found in the grams of ethanol consumed per week between those who	2013	8/11 (AMSTAR rating by the McMaster Health Forum)	2/17	6/17

Element	Services	Intervention	Focus of systematic review or economic evaluation	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
				received electronic screening and brief intervention services, and a control group, for up to three months, between three months and less than six months, and between six months and less than 12 months. Results of the meta-analysis show no statistically significant difference for long-term follow-up. The greatest reduction in ethanol was found at less than three-months follow-up and the impact was found to reduce over time.				
			Efficacy of screening and brief interventions for alcohol misuse in primary care (133)	Examines the efficacy and cost effectiveness of screening and brief interventions in primary care for excessive alcohol use. The review included 23 papers reporting results from 22 studies, nine of which were economic evaluations alongside clinical trials, and 13 which were stand-alone modelling evaluations. Studies examining levels of brief intervention concluded that models of stepped-care interventions were the most cost-effective. Studies comparing brief intervention to treatment as usual found few significant results, however, this may be in part due to short time spans of programs. Almost all studies examining the provision of screening and brief intervention compared to do-nothing scenarios found that screening and brief interventions were either cost-saving and health-improving, or had very low costs relative to health gains. Overall, this review concludes that there is strong evidence that screening and brief interventions services in primary care are a cost-effective policy option for reducing alcohol-related harms in high-income countries.	2014	8/10 (AMSTAR rating by the McMaster Health Forum)	1/23	0/23

Element	Services	Intervention	Focus of systematic review or economic evaluation	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
			Effectiveness of screening interventions in primary care for elderly adults with alcohol misuse (32)	The review examines the effectiveness of screening interventions in primary care for elderly individuals. Eight studies were included in the review. Studies examined the use of three pen-and-paper screening tools: the Michigan alcohol screening test, the CAGE questionnaire, and the alcohol use disorder identification test. In the 60-years-and-over population, the tests gave similar findings, however, the alcohol use disorder identification test appeared superior to the CAGE questionnaire and to the various forms of the Michigan alcohol-screening test. The best results for screening for lifetime and current abuse and dependence was found using the CAGE questionnaire. Overall, pen-and-paper screening in primary care is recommended for targeted groups of older adults presenting with specific risk factors. However, this type of screening is likely not cost-effective for the entire population.	Not reported	4/11 (AMSTAR rating by the McMaster Health Forum)	Not reported	0/9
		Harm reduction	Effectiveness and cost-effectiveness of needle and syringe programs for people injecting drugs (30)	The review was undertaken to determine what coverage of needle and syringe programs is most effective and cost-effective. The review focused on populations currently injecting opiates, stimulants, methadone and non-prescribed anabolic steroids. In total, 24 studies met the reviewers' criteria. Of these studies, 13 were included as economic evaluations (12 cost-effectiveness and one cost-benefit). The remaining 11 reviews were systematic reviews. Addressing the questions of coverage, there was evidence from one study to suggest that higher syringe coverage was associated with lower injection risk behaviour among injection drug users. Evidence from the same study's	2008	11/11 (AMSTAR rating from the McMaster Health Forum)	3/24	2/24

Element	Services	Intervention	Focus of systematic review or economic evaluation	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
				cross-section analysis determined that injection drug users who were homeless typically had lower levels of syringe coverage. In examining the question of what types of needle and syringe programs are most effective and cost-effective, there is evidence from two reviews that proximity to needle and syringe programs can lead to greater utilization of services and a reduction in risk behaviours. Two randomized control trials, one of moderate quality and the other of high quality, suggest that the setting of needle and syringe program does not impact behaviour, however this is contradicted by six low-quality observational studies. Three cross-sectional studies show evidence that providing needles and syringes through mobile vans and vending machines may better attract young injection drug users. Additionally, there is some evidence from one high-quality randomized control trial that providing hospital-based programs can increase the accessibility of outpatient services among injection drug users. One systematic review examined the feasibility of a syringe exchange program in prisons and concluded that this may be possible in small prisons. However, evidence is inconclusive for larger facilities. There is evidence from one randomized control trial that suggests case-management services delivered through a needle and syringe program may increase entry into drug treatment among injection drug users. There was evidence in 11 studies which showed that needle and syringe programs were cost-effective, and when compared to the cost of HIV/AIDS, were cost-saving. Mixed conclusions were found regarding cost-savings among those with hepatitis C.				

Element	Services	Intervention	Focus of systematic review or economic evaluation	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
			Impact of family-based interventions related to alcohol misuse and harms reduction among indigenous communities (29)	This review aims to identify family-based interventions that reduce alcohol-related harms in indigenous communities. In total, 19 studies were examined, all of which were counselling based. Of these studies, 11 targeted problem drinkers and eight targeted family members of problem drinkers. Interventions took the form of individual sessions, individual sessions with concurrent group/family sessions, group sessions or family sessions. Within the review, 18 of 19 studies reported positive effects either of reducing problem drinking or increasing family coping skills. Methodological limitations in the evaluation designs however, led authors to conclude that this was poor evidence of effectiveness. The review identified one study that targeted indigenous populations specifically, and concluded that family therapy and cognitive behavioural therapy were effective and appropriate to deliver in indigenous communities. The review also concluded that programs targeting family members that help to reduce negative consequences of relatives' drinking can be adapted to the indigenous context. Effective programs include community reinforcement and family training, coping skills training and 12-step facilitation. Overall, family-based interventions appear effective and adaptable to indigenous communities. However, the lack of methodological rigour in many of the studies included in this review should be kept in mind.	2010	5/11 (AMSTAR rating by the McMaster Health Forum)	0/19	1/19
			Impact of needle and syringe programs and HIV transmission reduction (36)	The review aims to assess the association between needle and syringe programs and HIV transmission. The review included 12 studies: one cross-sectional study, 10 cohort studies and one case-control study.	2011	8/11	5/12	0/12

Element	Services	Intervention	Focus of systematic review or economic evaluation	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
				Following a meta-analysis, there was evidence of effectiveness of needle and syringe programs at reducing the risk of HIV across all of the 12 studies included in the review. The overall quality of the evidence however was rated as low. A sub-group analysis was performed and found a protective association between needle and syringe programs and HIV. Overall, the review suggests that there is evidence to support the effectiveness of needle and syringe exchange programs on reducing HIV transmission within the injection drug use population.				
			Effectiveness of managed alcohol as a harm-reduction intervention for alcohol addiction (43)	The review evaluates the effectiveness of managed alcohol against conventional interventions for alcohol dependence. In this review, no studies met the inclusion criteria for the meta-analysis. Though 22 articles were considered potentially relevant, 21 of these were excluded as they did not consider managed alcohol programs as either the experimental or control intervention, and the other study was excluded for having participants under the age of 18. Overall, no evidence on the effectiveness of managed alcohol programs compared to conventional treatment was found.	2012	7/7 (AMSTAR rating by the McMaster Health Forum)	0/0	0/0
			Efficacy of behavioural HIV risk reduction among people who inject drugs (42)	This review aims to identify intervention components that are most helpful for risk reductions among people who inject drugs. The review included 37 randomized control trials in the meta-analysis evaluating a total of 49 independent interventions. Populations included in the review were	2004	5/11 (AMSTAR rating by the McMaster Health Forum)	0/37	1/37

Element	Services	Intervention	Focus of systematic review or economic evaluation	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
				individuals who were both currently enrolled in drug treatment and others who were not. Overall, interventions were found to reduce injection drug use, reduce non-injection drug use, increase entry into drug treatment programs, increase condom use, and reduce the frequency of trading sex for drugs relative to control conditions. Interventions were not consistent across groups for injection drug use and were found to be more effective for non-Caucasian participants, participants who received interpersonal skills training for safer needle use, and those who received equivalent intervention content of drug-related and sexual-related HIV risks. Overall, the review noted modest efficacy on risk behaviour outcomes including facilitating condom use, promoting entry into drug treatment, and reducing injection-drug use, non-injection drug use, and sex trading.				
			Effectiveness of structural-level needle programs in the reduction of HIV infection among people who inject drugs (134)	The review aims to assess the effectiveness of structural-level interventions that reduce the risk of HIV and hepatitis C among persons who inject drugs. The review included 15 studies that described 10 distinct needle and syringe exchange programs. The interventions focused on changes in access and availability of sterile injecting equipment. A meta-analysis to determine the effectiveness was not possible in this review due to heterogeneity in methodologies and interventions. Across the 10 structural-level interventions, all interventions showed some reduction in the risk and incidence of HIV and hepatitis C among people who use injection drugs.	2011	4/11 (AMSTAR rating by the McMaster Health Forum)	2/15	0/15

Element	Services	Intervention	Focus of systematic review or economic evaluation	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
				One study, which examines rates of hepatitis C among people who inject drugs, saw a greater reduction among those under the age of 25 than in the remainder of the injection drug using population. An additional study performed a sub-group analysis among participants and found that the greatest reduction in hepatitis C prevalence occurred within the group who had been injecting for between six and 12 years. This study also demonstrated that those recruited into the study at a harm reduction centre registered statistically lower HIV prevalence compared to those recruited within the community. Overall, the studies included in this review demonstrate a variety of effectiveness of needle and syringe programs at reducing prevalence of HIV and hepatitis C.				
		Outreach services	Effectiveness of suicide post-vention programs on suicide attempts and suicide, as well as on grief symptoms, metal distress, and mental health (22)	This study aims to determine the effectiveness of suicide post-vention programs on suicide attempts, grief symptoms, mental distress and mental health. Two literature reviews were conducted, one to find results for the effectiveness of suicide post-vention programs and the second to find literature on the cost-effectiveness of bereavement programs. The effectiveness literature included 16 studies, while only two studies were included for the cost-effectiveness of bereavement programs. Six studies looked to the effectiveness of school-based post-vention programs and found no protective effect. This included one study which reported negative effects from the post-vention including an increase in hospitalizations and suicide gestures. Among youth-group-based debriefings, the only significant effect was an increased scope on a self-efficacy scale among youth who had experienced both the suicide and the intervention.	2010	5/10 (AMSTAR rating by the McMaster Health Forum)	1/14 (only six settings provided)	0/14

Element	Services	Intervention	Focus of systematic review or economic evaluation	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
				Evaluations of family-focused suicide post-vention programs report improvements in depressive symptoms, anxiety symptoms and other psychological symptoms at both the short-term and 12-month follow-up. Outreach programs at the site of a suicide were found to increase the likelihood of seeking help compared to no contact. The review was unable to determine cost-effectiveness of bereavement services for those who are bereaved by suicide. Overall, the review found evidence that family-based strategies, outreach at the time of suicide, and bereavement support groups when run by trained facilitators is efficacious for post-suicide interventions.				
			Effectiveness of community-based mental health outreach services for older adults (44)	This review aims to evaluate the effectiveness of geriatric mental health outreach services at improving access to mental health care. The review included 14 studies and examined the use of mental health services and improvement in psychiatric symptoms. Studies that examined the effectiveness of case-identification models found that the gatekeeper model when compared with traditional referrals were more effective at reaching individuals who were more likely to be affected by economic and social isolation and are less likely to gain access to services through conventional referral approaches. All multidisciplinary care-management interventions were associated with significant improvements in depressive symptoms as well as a reduction in symptom severity.	2004	3/10 (AMSTAR rating by the McMaster Health Forum)	Not reported	0/14

Element	Services	Intervention	Focus of systematic review or economic evaluation	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
				Further, longitudinal cohort studies of multidisciplinary outreach teams, which found improved global functioning, reduced psychiatric symptoms and led to fewer behavioural disturbance relative to baseline measurements. The studies included in the review ranged in type and methodological rigour, limiting the overall evidence. However, the studies included found some evidence that psychogeriatric outreach programs and multidisciplinary outreach teams were effective interventions for elderly individuals.				

Appendix B2: Systematic reviews relevant to Element 2 – Defining the basket of services for those with mild to moderate mental illness and/or substance use problems

Element	Services	Intervention	Focus of systematic review or economic evaluation	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
Services for those with mild to moderate mental health and/or substance use problems	Crisis services	Crisis intervention	Effectiveness of crisis intervention for people with severe mental illnesses (45)	This review aims to investigate the effects of crisis intervention models of care for people with serious mental illness experiencing acute phases, compared to standard care. These models were proposed as a possible solution to deliver an acceptable amount of care to treat acute episodes of mental illness. A literature search identified eight randomized controlled trials. Crisis interventions were found to decrease repeated hospital admissions, especially for those that employed mobile crisis teams. Crisis interventions appeared to reduce family burden, and resulted in higher satisfaction level for both patients and families, as well as improved mental state at three months after crisis. There was a lack of strong evidence on the cost-effectiveness of crisis-interventional models, as well as a lack of data on staff satisfaction, carer input, complications with medication and relapses, thus indicating the need for more evaluative studies. Overall, crisis-intervention principles are regarded as an appropriate and viable way of treating those affected with serious mental illnesses.	2010	9/11 (AMSTAR rating by the McMaster Health Forum)	2/8	0/8
			Effectiveness of crisis intervention for adults with borderline personality disorder (46)	This review examined the evidence for the effectiveness of crisis intervention for adults with borderline personality disorder (BPD). Two ongoing randomized controlled trials (RCT) comparing crisis interventions with usual care or no intervention, were included in the review, with a total predicted sample size of 688. Studies with a lack of randomization, retrospective design, or the use of complex psychological therapy approach, were	2011	8/9 (AMSTAR rating by the McMaster Health Forum)	0/2	0/2

Element	Services	Intervention	Focus of systematic review or economic evaluation	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
				excluded. As the trials are ongoing and no RCT-based evidence currently exists, conclusions about the effectiveness of crisis intervention could not be drawn.				
		Mobile crisis response services	Effectiveness of crisis resolution/home treatment teams for older people with mental illness (47)	This review aims to evaluate the effectiveness of crisis resolution/home treatment teams (CRHTTs) for older people with mental health issues, as well as to conduct a scoping exercise on the types of CRHTTs in practice. Ten studies were included in the review. While CRHTTs can effectively reduce the number of hospital admissions, their impact on length of hospital stay and maintenance of community residence was inconclusive due to inadequate data. The scoping exercise investigated three types of home treatment service model including generic home treatment teams, specialist older adults home treatment teams, and intermediate care services, which all appeared to be effective in managing crisis. The findings suggest a need for randomized controlled trials to assess the efficacy of CRHTTs.	2008	5/9 (AMSTAR rating by the McMaster Health Forum)	0/10	0/10
	Early identification and information/referral	Community service information and referral	Patterns of user participation across online health communities (69)	This review aims to identify the patterns of people's participation in online health communities (OHCs), which would be useful for building community, disseminating information, and understanding social dynamics. The review included 20 studies that investigated the nature of participation in OHCs. Participatory styles were either multidimensional or one-dimensional. Multidimensional styles ranged from Influential Users to Topic-Focused Responders. The one-dimensional style focused on the level of online engagement based on participation frequency. Little	2014	3/10 (AMSTAR rating by the McMaster Health Forum)	2/20	0/20

Element	Services	Intervention	Focus of systematic review or economic evaluation	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
				evidence was found for consistent participatory styles across health communities. The review established a nomenclature for OHC participatory styles and provides a basis for future research.				
			Cost-effectiveness of pharmacotherapy or cognitive behavioural therapy for women experiencing major depression (135)	This randomized clinical trial conducted in 267 low-income minority women with current major depression aims to evaluate the cost-effectiveness of pharmacotherapy or cognitive behaviour therapy (CBT) compared with community referral. The study found that pharmacotherapy and CBT reduced depressive symptoms by having significantly more participants experiencing depression-free days compared to community referral. However, these treatments had higher costs relative to community referral.	2005	N/A	0/1	0/1
		Initial screening and brief assessments	Routine screening for drug misuse (70)	This review aims to investigate available evidence on routine screening for drug misuse and assess the need for the U.S. Preventive Service Task Force to update and make a recommendation on the topic. Twenty-eight articles were included in the review. No evidence was found for the effects of drug misuse treatments on the health outcomes of people who underwent screening. Some drug misuse treatments, such as pharmacotherapies and behavioural interventions, were found to effectively reduce cocaine, opiate, or marijuana misuse. Some evidence suggests that reduced mortality and morbidity are associated with a decrease in drug misuse. Majority of studies were only conducted among treatment-seeking populations, which limits the	2006	7/9 (AMSTAR rating by the McMaster Health Forum)	0/17	0/17

Element	Services	Intervention	Focus of systematic review or economic evaluation	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
				relevance of outcomes and the generalizability of findings to the broader population.				
			Effect of screening and brief intervention on patient healthcare utilization outcomes (71)	This review aims to assess the effect of screening and brief intervention (SBI) on outpatient, inpatient and emergency department (ED) healthcare utilization outcomes. The review included 29 publications with 21 studies conducted in a primary-care setting and four conducted in an ED setting. The findings suggest that SBI has little to no effect on outpatient or inpatient healthcare utilization, but a small, negative effect on ED utilization. SBI could potentially reduce overall health care costs, though the effect sizes are very small and insignificant. More rigorous studies are therefore needed to demonstrate the estimated effects of SBI.	2010	7/11 (AMSTAR rating by the McMaster Health Forum)	1/29	1/29
		Self-help resources	Features of mobile apps for bipolar disorder (28)	Smartphone apps can enhance the management of chronic illnesses such as bipolar disorder (BD) by delivering interventions and psychoeducation. They are also cost-effective, accessible and convenient to use. This article aims to identity the types of available mobile apps for BP in Google Play and iOS stores, as well as to assess their content quality. A total of 82 apps were included in this study; 32 of them provided information and 50 of them contained management tools for screening, symptom monitoring, support, and treatment. Overall, only a third of the included apps covered the core psychoeducation principles and cited the information source. Only 15% of the apps provided best-practice guidelines, which also were found to be uncorrelated with average user ratings. Over 50% of symptom monitoring apps did not account for information such as medication or sleep, and 60% of self-	2014	5/9 (AMSTAR rating by the McMaster Health Forum)	0/1	0/1

Element	Services	Intervention	Focus of systematic review or economic evaluation	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
				assessment apps did not use validated measures. The findings suggest that users and clinicians should be cautious when using these apps, as they generally fail to align with practise guidelines and established principles. Evidence-based mental health research should be integrated in public mobile apps.				
			Effects of e-interventions for alcohol misuse (49)	Traditional treatment for alcohol use disorder (AUD) can be problematic due to financial and clinical resource barriers, and electronic interventions (e-interventions) could act as a potential venue for extending the traditional services for AUD. As 87% of the U.S. population has access to the internet, e-interventions allow the engagement of people living in rural areas, those requiring flexible schedules, and those who wish to remain anonymous. This review of 26 randomized controlled trials assessed the characteristics and effects of e-interventions for alcohol misuse. CD-ROM-based, web-based, and interactive voice response, or mobile applications of e-interventions were included. The majority of e-interventions were found to be brief sessions and did not incorporate supplementary human support, which could have otherwise aided the effects of e-interventions. Weak evidence suggests e-interventions decreased weekly alcohol consumption and the risk of relapse. More intensive treatments were found to be associated with greater alcohol consumption reductions. The findings suggest insufficient evidence to support the substitution of e-interventions for brief, in-person treatment. Future studies should target effects of more intensive or longer e-interventions.	2014	8/11 (AMSTAR rating by the McMaster Health Forum)	1/26	12/26

Element	Services	Intervention	Focus of systematic review or economic evaluation	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
			Efficacy, cost-effectiveness and acceptability of self-help interventions for anxiety disorders (48)	This review aims to assess the efficacy, cost-effectiveness and acceptability of self-help interventions for anxiety disorders. These interventions have become a popular alternative for therapist-based interventions. The review included 31 randomized controlled trials. A meta-analysis demonstrated a significantly high favourability of self-help interventions compared to waiting list for people with anxiety disorders. A moderate effect size, though insignificant, was found to be in favour of therapist-based interventions over self-help. Supplementing self-help interventions with additional guidance and multimedia material was shown to improve treatment outcomes. Self-help interventions were found to be an effective treatment method for people with social phobia and panic disorders, though further research should also include economic evaluation and acceptability of these interventions.	2010	6/11 (AMSTAR rating by the McMaster Health Forum)	2/31	0/31
			Web-based interventions for youth with anxiety or depression (52)	This review examined published reports on web-based intervention programs for anxiety, depression and suicide prevention in children, adolescents and emerging adults. The review included 25 articles that described 17 studies focusing on eight internet-based programs and one mobile application. Web-based interventions were found to significantly reduce symptoms of anxiety and depression with a range of effect sizes. These interventions also demonstrated diagnostic improvements and better outcomes during follow-up. No suicide-prevention interventions were identified. There is a lack of evidence for the effectiveness of	2013	8/10 (AMSTAR rating by the McMaster Health Forum)	1/25	9/25

Element	Services	Intervention	Focus of systematic review or economic evaluation	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
				web-based interventions for anxiety and depression in youth, signalling a need for further research and program development.				
			Effects of e-mental health self-management for psychotic disorders (72)	This review aims to investigate the role and potential of informational technology in supporting self-management of psychotic disorders among service recipients. The review included 28 studies in order to examine the types, effectiveness, and degree of user-orientation of the identified interventions. Several types of self-management interventions were identified, such as psychoeducation, communication and decision-making, peer support, management of medication, daily functioning, and lifestyle. Effect sizes ranged from large for medication management to small for psychoeducation and communication. The results demonstrate that e-mental health services are effective services, if not more, compared to usual care or non-technological approaches.	2012	6/10 (AMSTAR rating by the McMaster Health Forum)	1/28	0/28
			Impact of support on effectiveness of written cognitive behavioural self-help (124)	Cognitive behavioural therapy (CBT) is regarded as an effective approach to mental health issues. This review explores the impact of support on the effectiveness of written cognitive behavioural self-help, as well as the degree of effectiveness based on the type of support available. The meta-analyses included 38 studies, which resulted in a significant, medium effect size for written CBT self-help when compared to control conditions. The overall effect size was similar for different types of support. Effect size tends to vary by the type of mental health condition for guided and self-administered support. For guided self-help, the effect size associated with telephone support was significantly larger than other forms of support.	2011	8/11 (AMSTAR rating by the McMaster Health Forum)	4/38	0/38

Element	Services	Intervention	Focus of systematic review or economic evaluation	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
				Minimal contact was found to have a greater effect size than guided support. In addition, for depression, larger effect sizes were associated with higher baseline severity. The type of support should be taken into consideration when dealing with written CBT self-help as the effects may differ depending on the mental health condition.				
			Evaluation of self-guided psychological treatment for depressive symptoms (125)	This study is the first quantitative meta-analysis to examine the available literature on the effects of self-guided psychological interventions for depressive symptoms. Seven randomized controlled trials were included in the review, with low heterogeneity and no significant differences in subgroup analysis for outcome measures. All interventions used in the studies were based on cognitive-behavioural techniques. Beck Depression Scale was the most commonly used for outcome measure. Overall, findings suggest that self-guided psychological treatment had a small but significant effect on individuals with increased levels of depressive symptoms.	2010	8/11 (AMSTAR rating by the McMaster Health Forum)	0/7	1/7
			Effects of media-delivered behavioural and cognitive behavioural therapies for anxiety disorders in adults (50)	This review aims to evaluate the effects of media-delivered cognitive behavioural therapy and behaviour therapy for anxiety disorders in adults. The review included 101 randomized controlled clinical trials of self-help with 8,403 participants. Of these, 92 trials were included in the quantitative analysis, where media-delivered interventions were compared with no treatment or face-to-face interventions. Media-delivered interventions demonstrated moderate effects and greater response compared to no treatment, and was not significantly	2013	11/11 (AMSTAR rating by the McMaster Health Forum)	5/101	0/101

Element	Services	Intervention	Focus of systematic review or economic evaluation	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
				different from face-to-face therapy. Low- to moderate-quality evidence supported benefits of media-based interventions for quality of life, depression and mental health-related conditions. Overall, findings suggest that self-help complemented by professional support is more effective than no treatment, but may also be less effective than normal in-person therapy.				
			Evaluation of smartphone tools for suicide prevention (136)	This study aims to examine the features of publicly available mobile apps for suicide prevention, and the current evidence of effective prevention strategies. A total of 123 apps on the Android and iOS stores pertaining to suicide or deliberate self-harm were reviewed, and 49 of them contained an interactive suicide-prevention component. All reviewed apps had at least one strategy that aligned with best-practise guidelines. Thirteen apps focused on crisis support, which had the strongest literature evidence for suicide prevention. Most apps focused on one prevention strategy, whereas the safety plan apps focused on a mean of 3.9 techniques. As none of the reviewed apps offered comprehensive evidence-based support, and some harmful apps were also identified, there is a need to develop multifaceted and pragmatic apps for suicide prevention.	2015	N/A	0/1	0/1
			Evaluation of app-based psychological interventions (53)	App-based self-delivered treatments for mental health disorders have become a popular alternative to conventional psychological therapies for service delivery, which have demonstrated only limited success in meeting the increasing demand and needs of the population.	2015	N/A	0/1	0/1

Element	Services	Intervention	Focus of systematic review or economic evaluation	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
				App-based treatments have demonstrated effect sizes compared to conventional therapies, as user engagement, rather than the type of therapy, is important in obtaining desired outcomes. While app usage eliminates barriers such as financial burdens and lack of available professionals, they may not be as effective as some forms of psychotherapy. Often there is a high availability of apps, but low levels of evidence to support the content and guidelines of these apps, many of which deal with bipolar disorder, bulimia nervosa, and post-traumatic stress disorder. There needs to be more regulation and quality control for the existing, validated app-based psychological treatments in order for them to be evidence-based, demonstrate effectiveness and provide significant patient benefits.				
	Counselling and therapy services	Counselling and treatment	Effects of early intervention for psychosis (75)	The review identified 18 studies to evaluate the effects of early detection, phase-specific treatments, and specialized early intervention for the treatment of people with prodromal symptoms or first-episode psychosis. Six studies were identified to address the prevention of psychosis and found little benefit in the use of olanzapine and cognitive behavioural therapy (CBT). The utilization of risperidone in combination with CBT and a specialized team had a greater effect than the use of a specialized team alone in the treatment of prodromal symptoms. There is some support for phase-specific treatments. CBT and a combination of a specialized team with family therapy had some effect on the treatment of	2009	10/10 (AMSTAR rating by the McMaster Health Forum)	1/18	4/18

Element	Services	Intervention	Focus of systematic review or economic evaluation	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
				prodromal symptoms. Moreover, phase-specific cannabis, psychosis therapy, and crisis assessment did not demonstrate any benefit or reduce hospitalization. When compared to specialized early intervention services with standard care, there was an improvement in compliance. There is limited evidence to draw conclusions on whether people with prodromal symptoms or first-episode psychosis can be helped by these therapy services.				
			Effectiveness of health system services and programs for youth-to-adult transitions in mental health care (95)	This review aims to examine effectiveness of services and dedicated programs to assist in the transition between child and adolescent mental health services and adult mental health services. The review examined six articles, of which one was a pre-post design, three were program evaluations and two were studies that used an exploratory qualitative design. Findings from the studies emphasized that transition related meetings including transfer-planning meetings, joint working and information transfer between caseworks, youth and guardians, help to promote effective transitions. Similar effectiveness was seen for 'wrap around' process, which facilitates consultations between children's and adults' mental health providers. The addition of a cross-service worker able to have formal and informal discussions across mental health systems was a recommended intervention.	2013	7/10 (AMSTAR rating from McMaster Health Forum)	0/6	6/6

Element	Services	Intervention	Focus of systematic review or economic evaluation	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
				An important barrier of effective transitions between services that was identified in the review was the difference in definitions between children and adult mental health services. Adult mental health services typically have narrower definitions of diagnoses causing gaps in eligibility between the two systems. Overall, the review suggests that transition-aged youth benefit when planned and structured transition processes are in place.				
			Effectiveness of motivational interviewing for adolescent substance use (76)	The review evaluated the effectiveness of motivational interviewing (MI) to treat adolescent substance use , and to explore the impact of different intervention formats and designs. MI interventions may include motivating adolescents to participate in skills-based training, follow-up to another treatment, or encourage the use of MI and another treatment. Twenty-six of the 39 included studies reported statistically significant reductions in substance use including alcohol (seven studies), tobacco (six studies), marijuana (seven studies) and combination (eight studies). The studies were categorized as motivational interviewing only, motivational interviewing with feedback, motivational interviewing with another intervention, and motivational interviewing with feedback and another intervention. There were no significant differences in substances use outcomes, between motivational interviewing with or without feedback, and between interviewing with or without other interventions. Programs were delivered to groups or individuals, or a combination of these. Formats included face-to-face, telephone, and computer or internet. All three	2012	6/9 (AMSTAR rating by the McMaster Health Forum)	0/39	0/39

Element	Services	Intervention	Focus of systematic review or economic evaluation	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
				interventions formats demonstrated significant effects in the reduction of at least one substance use. Moreover, involving parents and providing feedback face-to-face is more effective than computerized feedback. Personalized feedback interventions targeting alcohol use found an overall effect size in reduced alcohol consumption.				
			Effectiveness of group-based cognitive behavioural therapy for depression (54)	The review identified 23 studies on the effectiveness of cognitive behavioural therapy (CBT) intervention, which is defined by the authors as cognitive restructuring training and/or promoting behavioural change. The primary outcome was clinical improvement in depression. 14 studies indicated that group-based behavioural therapy (CBT) was more effective than usual care for the treatment of depression. Seven studies found that individually delivered therapy may be more effective than group-delivered immediately post-treatment. Four studies showed clinical improvement in depression following dialectical behaviour therapy (DBT), interpersonal therapy, and self-control therapy with self-care; however, there are methodological weaknesses to drawing firm conclusions. One study found that group-based CBT was more effective, but more expensive than usual care. The author noted that the review is limited to individuals over the age of 18 with depression, and may not necessarily apply to those under that age or to other types of mental illness.	2010	7/11 (AMSTAR rating by the McMaster Health Forum)	1/23	0/23

Element	Services	Intervention	Focus of systematic review or economic evaluation	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
			Effectiveness of cognitive behavioural therapy for anxiety and depression (55)	The review determined the effectiveness of multi-modal cognitive behavioural therapy (CBT) for symptoms of anxiety and depression in primary care. Seven of the 29 RCTs found multi-modal CBT was effective for treating anxiety and depression symptoms when compared to no primary-care treatment. A sub-analysis indicated that there is more robust evidence for CBT for anxiety symptoms than CBT for depression symptoms. There is strong evidence for computerized and/or online CBT with a smaller effect size for guided self-help CBT. Fourteen of the 29 RCTs found that multi-modal CBT was more effective than primary care for both anxiety and depression symptoms. A sub-analysis indicated that there is more robust evidence for CBT for anxiety symptoms than CBT for depression symptoms. Nine of the 29 RCTs found that multi-modal CBT in combination with primary care treatment as usual was shown to be more effective than primary care TAU for depression symptoms. There is strong evidence for the utilization of both face-to-face CBT and guided-self-help CBT in combination with primary care treatment as usual. Overall, the authors indicated that there is sufficient evidence to justify the utilization of CBT in primary care.	2014	8/11 (AMSTAR rating by the McMaster Health Forum)	0/29	0/29
			Effectiveness of psychological treatment for depressive symptoms (56)	There is evidence to suggest that psychological treatments (i.e. face-to-face problem-solving therapy, face-to-face interpersonal psychotherapy, psychoeducational intervention, remote therapist-led CBT, remote therapist-led problem-solving therapy, guided self-therapy, and no or minimal contact CBT)	2013	8/11 (AMSTAR rating by the McMaster Health	0/30	0/30

Element	Services	Intervention	Focus of systematic review or economic evaluation	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
				for treating depressed primary-care patients are more effective in comparison to usual care or placebo. There were no statistically significant differences among the effects of the different psychological interventions within the 30 studies. The authors indicated that there were no significant differences in outcomes due to delivery mode and treatment concept. There is some evidence to suggest that psychological treatments might be less effective in patients with minor depression or dysthymia compared to patients with major depression.		Forum)		
			Efficacy of cognitive bias modification interventions in anxiety and depression (73)	The review of 44 studies examined the efficiency of cognitive bias modification (CBM) interventions. For both attention bias modification intervention and interpretative bias modification intervention, there were small yet significant effects on both depression and anxiety. Overall, the meta-analysis indicated CBM might have small effects on mental health problems; however, the low-quality studies prevented the authors from drawing firm conclusions.	2013	8/11 (AMSTAR rating by the McMaster Health Forum)	0/44	0/44
			Effects of therapist-supported internet cognitive behavioural therapy for anxiety disorders among adults (57)	The review examined the effects of therapist-supported internet CBT (ICBT) (i.e. online modules on psychoeducation, cognitive restructuring, behavioural activation, challenging core beliefs, and relapse prevention, with e-mail and phone support from a therapist for module activities) on the reduction of anxiety symptoms and remission of anxiety disorder in adults in comparison to no treatment, unguided CBT, or face-to-face CBT. Twenty-two of the 30 low- to moderate-quality studies compared therapist-delivered ICBT with a waiting list, attention, information, or online discussion group only There was no statistically significant clinical improvement in anxiety or	2013	11/11 (AMSTAR rating by the McMaster Health Forum)	0/30	0/30

Element	Services	Intervention	Focus of systematic review or economic evaluation	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
				reduction in the severity of disorder-specific anxiety symptoms. Fourteen of the 30 low- to moderate-quality studies found a significant decrease in general anxiety following ICBT. Overall, there is low- to moderate-quality evidence to indicate that ICBT with therapist support was significantly more effective than no treatment. Four low- to very low-quality studies indicated that there were no significant differences in the effectiveness of ICBT with therapist support and unguided CBT in the primary outcomes of clinical improvement in anxiety, reduction in the severity of disorder-specific anxiety symptoms, and the reduction in general anxiety symptom severity. Six studies compared therapist-supported ICBT with face-to-face CBT and found no significant differences in outcomes.				
			Effects of supportive therapy for schizophrenia (77)	Twenty-four very low-quality studies were identified to assess the effects of support therapy (i.e. advocacy, therapy manuals or protocol with therapists) for people with schizophrenia. The primary outcomes measured were relapse, hospitalization, important change in mental state, global functioning, engagement with services, and satisfaction with care. Five of the 24 studies found no significant differences between supportive therapy and standard care in primary outcomes of relapse and hospitalization, and clinical improvement in mental state. Twenty of the 24 studies compared supportive therapy with other psychological therapies, and	2009	9/10 (AMSTAR rating by the McMaster Health Forum)	0/24	0/24

Element	Services	Intervention	Focus of systematic review or economic evaluation	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
				found that all other therapies were superior, such as CBT, problem-solving therapy, psychoeducation, family therapy, psychodynamic psychotherapy in terms of clinical improvement in mental state, and patient satisfaction. Determining the effectiveness of support therapy for schizophrenia is difficult due to the limited number of available studies.				
			Efficacy of psychological interventions for adults with bipolar disorder (74)	The review focused on the efficacy of psychological interventions for adults with bipolar disorder. There is moderate-quality evidence of reduced relapses at post-treatment and follow-up (34% and 26% reduction respectively), in addition to reduction in hospital admissions (32%) among individual psychological interventions (i.e. face-to-face and interactive online psychoeducation, cognitive therapy or CBT, and medication adherence therapy), when compared to treatment as usual. One RCT found a medium effect of supportive therapy on depressive symptoms, and a small effect on mania symptoms. CBT reduced depression relapses. Twelve RCTs reported fewer relapses of depression at post-treatment and follow-up among group interventions (i.e. psychoeducation, CBT, mindfulness therapy, social cognition and interaction training, and dialectical behavioural therapy) in comparison to treatment as usual. Additionally, seven RCTs reported that family psychoeducation reduced symptoms of depression and mania when compared to treatment as usual.	2014	10/10 (AMSTAR rating by the McMaster Health Forum)	3/55	0/55

Element	Services	Intervention	Focus of systematic review or economic evaluation	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
				Two of the five RCTs reported there is some evidence to suggest collaborative care reduced the number of hospital admissions at post-treatment in comparison to treatment as usual. There is insufficient evidence to recommend one specific treatment over others.				
		Community treatment	Effectiveness of culturally adapted treatments for depression and anxiety disorders in ethnic minority adults (60)	More culturally sensitive guidelines have been used to increase the effectiveness of treatments for ethnic minority patients with depression and anxiety disorders. This review aims to examine the outcomes associated with such guideline-driven adaptations and interventions. This review included nine U.S. studies, all of which assessed the outcomes of culturally adapted guideline drive treatments in comparison to usual care or a waiting list. The ethnic groups included African-, Asian-, White-, and Latino-Americans. Culturally adapted psychotherapies included cognitive behavioural treatment, exposure therapy, and panic control therapy. Despite the presence of significant heterogeneity among studies, overall results demonstrated that the adaptation of culturally sensitive interventions for anxiety and depression seems to be worthwhile and effective.	2011	5/11 (AMSTAR rating by the McMaster Health Forum)	0/9	0/9
			Efficacy of brief interventions to reduce harmful alcohol consumption (127)	This review aims to assess the efficacy of brief intervention (BI) in reducing hazardous alcohol consumption under healthcare and emergency department settings. Twenty randomized controlled trials with a total of 8,226 participants were included. Pooled results of meta-analysis reported statistically significant benefits	2014	7/11 (AMSTAR rating by the McMaster Health Forum)	0/20	0/20

Element	Services	Intervention	Focus of systematic review or economic evaluation	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
				of BIs at both six- and 12-month follow-up. Subgroup analyses of outcomes for European versus non-European studies demonstrated no significant differences. Overall findings support the effectiveness and generalizability of BIs across many countries and harmful drinking cultures.				
			Evaluation of Aboriginal community-based alcohol and substance abuse treatment programs (78)	Substance abuse in aboriginal communities is a complex issue needing sensitive and multifaceted approaches. This review aims to assess culturally based and community-based alcohol and substance abuse treatment programs for the Aboriginal population. Thirty-four articles were included in the review. Prevention education, prevention policy and harm reducing, community healing, as well as appropriate aftercare were described in the study. Benefits of community-based programs include overcoming barriers created by off-reserve programs and the fear of unknown. Such programs also promote the inclusion of family and friends, and users' engagement in post-treatment support. As every Aboriginal community is unique in its culturally accepted norms and patterns of substance abuse, flexible programs need to be developed to meet the specific needs of each area. Community-based prevention and treatment modalities are effective alternatives to traditional approaches.	2006	5/9 (AMSTAR rating by the McMaster Health Forum)	11/34	34/34
			Efficacy of psychotherapy interventions among older adults with sub-threshold depression	This review aims to assess the efficacy of psychotherapy among older adults with depressive symptoms that do not meet the criteria for major depression.	2010	7/9 (AMSTAR rating by the McMaster	0/5	0/5

Element	Services	Intervention	Focus of systematic review or economic evaluation	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
			(58)	The review examined the types and outcome of interventions of five randomized controlled trials (RCTs) with 1,083 participants. All studies were quality grade 1 according to the United States Preventive Services Task Force guidelines. Problem-solving therapy, stepped care for depressive disorders, life review, and cognitive behavioural therapy were implemented by the study trials, all of which demonstrated significant effect. Overall findings suggest that psychotherapy can safely and effectively reduce the burden of depression among adults with sub-threshold depression.		Health Forum)		
			Effectiveness of community-based prevention programs for anxiety and depression in youth (59)	This review aims to evaluate the effectiveness of community-based prevention programs for adolescents and young adults. Forty-four studies of controlled and randomized controlled trials were included in the review, 18 of which examined anxiety and 26 of which examined depression. 60% of the community programs were associated with positive outcomes, where youth reported reduced anxiety and depression symptoms. Cognitive behavioural therapy programs were found to be effective in preventing or reducing symptoms of depression or anxiety. Computerized programs also appeared to be potentially effective programs. The review suggested that further research should be conducted to evaluate the cost-effectiveness, as well as the successful components of these programs.	2008	5/11 (AMSTAR rating by the McMaster Health Forum)	1/44	16/44

Element	Services	Intervention	Focus of systematic review or economic evaluation	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
			Effectiveness of brief interventions for illicit drug use among peripartum women (79)	This review evaluates the effectiveness of brief interventions on illicit drug use, treatment retention, and pregnancy outcomes among pregnant and postpartum women. Four published studies of randomized controlled trials (RCTs) for illicit drug use were included in the review. Three RCTs used technology-delivered brief interventions without therapist contact, and two of them demonstrated small-to-moderate positive effect in reducing drug use and increasing abstinence. No significant effects of brief interventions were found in the trials involving specialized treatments. Computer-based brief interventions may serve as an important component in reducing substance abuse. Future research should include larger RCTs and focus on evaluating the performance of such interventions among pregnant women.	2013	6/9 (AMSTAR rating by the McMaster Health Forum)	0/4	0/4
			Effectiveness of brief interventions for heavy alcohol users admitted to hospitals (81)	Brief interventions are often motivational sessions to encourage users to reduce alcohol consumption. This review aims to assess the effectiveness of brief interventions in reducing alcohol consumption and improving outcomes for heavy users admitted to general hospital inpatient units. This review included 14 controlled and randomized controlled trials involving 4,041 participants, most of which were male. The study found significant reduction in alcohol consumption at both six- and nine-month follow-up for patients receiving brief interventions compared to the control groups. The brief intervention groups also reported significantly fewer deaths at both six- and 12-month follow-up. In addition, findings suggest that screening patients about drinking issues may have a positive influence	2008	10/11 (AMSTAR rating by the McMaster Health Forum)	0/14	0/14

Element	Services	Intervention	Focus of systematic review or economic evaluation	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
				on drinking behaviour and consumption level. Benefits such as reduced alcohol consumption and death rates were found as a result of offering brief interventions. Further research should focus on assessing content and exposure level of these interventions, and include patients with a wider range of characteristics in order to increase the generalizability of study results.				
			Efficacy of motivational interviews in medical care settings (137)	This review examines the effectiveness of motivational interviewing (MI), which is used to encourage people to make behavioural adjustments and improve health outcomes, in medical care settings. Forty-eight studies involving 9,618 participants were included in the review. All were randomized controlled trials comparing MI to no MI under a variety of settings such as hospitals, clinics and therapy settings. A significant effect for MI was reported compared to the control group, though statistically significant heterogeneity was present. MI appeared to benefit several outcomes, including body weight, physical strength, substance use, blood pressure and cholesterol, quality of life, self-monitoring, death rate, and attitude to change and treatment. No difference between MI and the control group was detected for eating disorders and some risk-reduction behaviours. Significant effects of MI were reported across all settings, except in HIV treatment clinics. Interventions delivered by mental health providers or interdisciplinary teams demonstrated statistically significant positive outcomes. Patient characteristics did not affect the outcome. Overall, MI resulted in	2011	5/11 (AMSTAR rating by the McMaster Health Forum)	1/48	0/48

Element	Services	Intervention	Focus of systematic review or economic evaluation	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
				beneficial outcomes across settings.				
			Evaluation of substance abuse treatments for older adults (126)	This review aims to evaluate the effectiveness of substance abuse treatments (SAT) for older adults by examining available literature published within the last 30 years. Twenty-five studies were included in the review, though many of them had limited methodological rigor and very small sample sizes. Implemented treatments for substance use by older adults include brief interventions, care coordination programs, and inpatient and outpatient treatments. In the context of mixed-age treatments, older adults generally demonstrated fewer alcohol issues, and lower psychiatric distress and rates of drug use than the younger cohorts. There is a lack of evidence pertaining to the specific mechanisms of treatments that work best for the older population. Regardless of the level of care, treatments generally showed more positive outcomes at the end of treatment and at follow-up for older adults compared to the general population. The likelihood of positive outcomes was linked to the increasing frequency of treatments received. Additionally, findings also suggested that in comparison to mixed-age treatments, age specific treatments for older adults might be more effective in improving outcomes.	2012	3/10 (AMSTAR rating by the McMaster Health Forum)	0/25	0/25
		Brief intervention	Efficacy of brief alcohol screening intervention for college students (80)	This study aims to evaluate the efficacy of Brief Alcohol Screening Intervention for College Students (BASICS) to reduce excessive alcohol consumption and associated negative consequences. BASICS is a specific type of brief intervention conducted over two standardized sessions, and involves goal-setting, motivational interview and personalized feedbacks.	2011	5/11 (AMSTAR rating by the McMaster Health Forum)	0/18	13/18

Element	Services	Intervention	Focus of systematic review or economic evaluation	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
				Eighteen studies of randomized controlled trials were included in the review, with a total sample size of 6,233 students. All studies had good or excellent methodological quality. The review reported a significant reduction for alcohol consumption, as well as alcohol-related issues for students who underwent BASICS compared to the controls. The results of the review and meta-analysis supported the effectiveness of BASICS in lowering alcohol-dependence in heavy college drinkers and motivating them to undergo treatments. The identification of the predictors of heavy drinking behaviour, as well as the mechanisms of positive change, such as the involvement of peer providers, will contribute to the development of more effective interventions.				
			Effectiveness of brief contact interventions for reducing self-harm, suicide attempts and suicide (41)	This review aims to evaluate current evidence on the effectiveness of brief contact interventions for reducing self-harm, suicide attempts and suicide. Fourteen studies were included in the review, and 12 of them were included in the meta-analysis. Brief contact interventions included telephone contacts, emergency or crisis cards, and postcard or letter contacts. A reduction, though statistically insignificant, was found for the occurrence of subsequent episode of suicide attempt or self-harm in those who underwent interventions compared to the control. Overall, limited evidence suggests a non-significant positive effect of brief interventions on self-harm, suicide attempts and suicide. Further research needs to be conducted in order to recommend brief	2013	6/11 (AMSTAR rating by the McMaster Health Forum)	0/14	0/14

Element	Services	Intervention	Focus of systematic review or economic evaluation	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
				contact interventions for clinical implementation.				
			Effectiveness of brief interventions in reducing alcohol misuse in adolescents (82)	This review aims to evaluate the effectiveness of brief interventions in clinical settings in reducing alcohol misuse and alcohol consumption, specifically for Australian adolescents. Fourteen studies of randomized controlled trials with 3,120 participants aged 12-25 were included in the review. Community-based programs and family interventions were excluded. The generalizability of results was limited due to different interventions, settings and outcome measures employed in each study. Results suggested that motivational interviewing had promising effects in minimizing harm. Significant reductions in alcohol consumption were reported by long-term follow-up trials using motivational interviewing. Trials that included other types of intervention, such as interactive computer and audio sessions, were ineffective in reducing alcohol misuse. While definite conclusions could not be drawn due to confounding evidence, certain successful brief intervention styles noted by previous studies such as face-to-face and motivational interviewing warrant further research.	2008	3/9 (AMSTAR rating by the McMaster Health Forum)	0/14	4/14
	Specialized consultation, assessment and treatment	Internet, gaming disorders and problem gambling services	Efficacy of psychological therapies for pathological and problem gambling (62)	This review aims to determine the efficacy of psychological therapies for pathological and problem gambling. Randomized clinical trials involved cognitive behaviour therapy (CBT), motivational interviewing therapy, integrative therapy, and other types of psychological therapy. Fourteen studies with 1,245 participants were included in the review. Nine studies found significant benefit derived from CBT immediately after	2011	11/11 (AMSTAR rating by the McMaster Health Forum)	4/14	0/14

Element	Services	Intervention	Focus of systematic review or economic evaluation	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
				treatment, though the durability of these effects remain undetermined. Motivational interviewing was found to have small effect on reducing financial loss from gambling at zero to three months follow-up, and a significant effect on decreasing gambling frequency at nine to 12 months follow-up. Integrative therapies were found to have medium effect on lowering gambling severity. The findings support the efficacy of CBT in reducing pathological and problem gambling. Motivational interviewing and integrative therapies also demonstrated some benefits, though further research is needed to draw conclusions.				
		Eating disorder day programs and community therapy	Effectiveness of group therapy for treatment of bulimia nervosa (84)	This review aims to evaluate the effectiveness of group therapy for bulimia nervosa (BN) compared to individual therapy, other therapies, or no treatment in regards to remission from binge eating and binge frequency. This review included 10 studies of randomized controlled trials of group therapies adhering to standard guidelines. Most studies had small sample sizes and an unclear risk of bias. Due to limited evidence, conclusions could only be made regarding cognitive behavioural therapy (CBT). Five studies compared group CBT with no treatment. Low-quality evidence demonstrated a clinically relevant difference in favour of group CBT for remission from binges and binge frequency at the end of therapy. There was no sufficient information for follow-up outcomes. Findings suggest that group CBT may be superior to no treatment for people with BN, but further research is needed to address the uncertainty of its	2013	8/11 (AMSTAR rating by the McMaster Health Forum)	0/10	0/10

Element	Services	Intervention	Focus of systematic review or economic evaluation	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
				effects.				
			Effectiveness of internet-based treatment for eating disorders (63)	This review aims to evaluate the effectiveness of internet-based treatment for eating disorders (ED) based on current literature. This review included 21 studies with varying methodological quality, 14 of which focused on internet-based cognitive behavioural therapy (CBT), and three focused on email-based CBT. The study dropout rates ranged from 5.3 to 76.8%. Overall, internet-based treatments were more effective at reducing ED psychopathology, frequency of binge eating and purging, and improving quality of life. Individuals with less comorbid psychopathology, those with binge eating disorder instead of bulimia nervosa, or restrictive problems, responded better to internet-based treatments. Individuals who were more compliant to treatments demonstrated better improvements in ED symptoms. Results also showed that in-person sessions such as therapy support and assessments appeared to increase study compliance. Findings suggest that internet can be viewed as an appropriate venue for treating ED. More research should focus on comparing the effectiveness of internet-based and face-to-face treatments.	2012	7/10 (AMSTAR rating by the McMaster Health Forum)	0/21	1/21
	Psychosocial interventions	Family intervention	Effectiveness of brief family interventions for people with schizophrenia or related conditions (83)	This review aims to examine the effects of brief family interventions for people with schizophrenia or schizophrenia-like conditions, compared to standard care. Positive family environments have been shown to improve the outcomes of these patients. Four randomized studies with 163 participants were included in the review. Low-quality evidence suggested that brief family intervention significantly	2005	10/11 (AMSTAR rating by the McMaster Health Forum)	0/4	0/4

Element	Services	Intervention	Focus of systematic review or economic evaluation	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
				increased the understanding of family members about mental illness. However, as most results were equivocal at medium or long term, it remained unclear whether brief family interventions could reduce hospital admission, decrease the number of people using health services, and reduce relapse of schizophrenia. None of the studies assessed other outcomes such as adverse events, quality of life, length of hospital stay, or economic evaluation. Overall, definite conclusions could not be drawn due to limited data, though brief family interventions have shown potential to be more effective with guided good practice.				
			Effectiveness of family-based alcohol interventions to reduce alcohol-related harm in indigenous communities (29)	This review aims to evaluate the effectiveness of family-based alcohol interventions in reducing alcohol-related harms in indigenous communities. The review included 19 studies, 11 of which included the involvement of family members during treatment, and eight of which specifically targeted the family members as part of the treatment. A meta-analysis of the most commonly reported outcomes was deemed inappropriate due to large variability between studies. Participant engagement in treatment ranged from 55 to 92%. Overall, family-based interventions demonstrated positive effect in reducing alcohol consumption among problem drinkers, and improving coping of family members. Further research needs to include more representative samples and high-quality economic evaluations.	2010	6/10 (AMSTAR rating by the McMaster Health Forum)	0/19	1/19
		Social skills training	Effects if social skills training for schizophrenia (64)	This study aims to assess the effectiveness of social skills training (SST) for individuals with schizophrenia.	2007	7/10 (AMSTAR rating by	0/23	0/23

Element	Services	Intervention	Focus of systematic review or economic evaluation	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
				The review included a meta-analysis of 23 randomized controlled trials focusing on individual SST interventions and a total of 1,539 participants. Results of the analysis demonstrated a large mean effect size for content-mastery exams, medium effect size for daily living skills, performance-based measures, community functioning and negative symptoms, and small mean effect size for relapse and other symptoms. The impact of SST was determined to be the strongest for the domains most proximal to the intervention, and weakest for the domains most distal to the intervention. Overall findings suggest that social skills training could improve various aspects of the negative symptoms and psychosocial functioning of individuals with schizophrenia.		the McMaster Health Forum)		
		Psychosocial education and skills-based training	Effects of life skills programs for chronic mental health problems (65)	This review aims to evaluate the effects of life-skills programs compared to standard care or support groups for individuals affected by chronic mental illnesses. Life-skills programs are often included as part of the rehabilitation process as they focus on the ability of self-care and functioning. This review included seven randomized trials of life-skills programs with a total of 483 participants. Comparing life-skills training to standard care and support groups, no significant differences were found in terms of life skills performance, study retention, quality of life, or social performance skills. Available evidence suggests that the effects of interventions between those that receive life skills training, peer support, or standard care appeared to be equivocal.	2010	10/11 (AMSTAR rating by the McMaster Health Forum)	0/9	0/9

Element	Services	Intervention	Focus of systematic review or economic evaluation	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
		Psychosocial rehabilitation	Evaluation of psychosocial therapeutic intervention for volatile substance use (128)	Volatile substance use (VSU) caused by inhalation of toxic chemical components of industrial products, is associated with adverse outcomes such as cognitive impairment and death. It occurs disproportionally in marginalized and young populations. This review examines the psychological interventions for treating VSU. This review included 19 studies of VSU therapeutic interventions, including case management, residential treatments, counselling, recreation and engagement programs. Weak evidence from the review supports family therapy as an effective VSU intervention, though high relapse rates have been reported. There was a lack of high-quality evidence due to limited sample size and high heterogeneity. Some challenges faced by researchers include participants' erratic treatment engagement, limited diversity of programs, and difficult implementation of programs in remote areas. As definite conclusions for the VSU psychological treatments could not be drawn, more rigorous study designs are in demand.	2010	6/10 (AMSTAR rating by the McMaster Health Forum)	3/19	10/19
			Effectiveness of psychosocial and pharmacological treatments versus pharmacological treatments alone for opioid detoxification (101)	The psychological, behavioural and social conditions present after an elimination of physical dependence on the drug may still make individuals prone to relapse, which makes psychosocial therapy an important component of the treatment process. This review aims to evaluate the effectiveness of psychosocial and pharmacological interventions versus only pharmacological treatments for opioid detoxification. This review included 11 studies with a total of 1,592 participants. The studies included four psychosocial	2011	10/11 (AMSTAR rating by the McMaster Health Forum)	0/11	0/11

Element	Services	Intervention	Focus of systematic review or economic evaluation	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
				interventions: contingency management and community reinforcement behavioural treatments, structured counselling, and family therapy. The studies also included two pharmacological treatments, namely methadone and buprenorphine. The results demonstrated that psychosocial interventions plus pharmacological treatments are effective at significantly reducing dropout rates, opiate use during treatment and at follow-up, and clinical absences during treatment. Despite the heterogeneity and limited number of studies available, overall findings suggest the coupling of psychosocial treatments with pharmacological approaches may be more effective at drug detoxification.				
			Effectiveness of pharmacological detoxification among adolescents (138)	This review evaluates the effectiveness of detoxification treatments compared with pharmacological maintenance treatment or psychosocial intervention in reducing opioid use among adolescents. This review included two randomized trials with 190 participants. One trial compared buprenorphine with clonidine for detoxification, and the other compared maintenance treatment versus detoxification treatment. The first trial found no difference in the duration and severity of withdrawal symptoms, though buprenorphine favoured a lower dropout rate. The second trial found that maintenance treatment had a lower dropout rate, and also decreased self-reported opioid use and increased number of adolescents participating in addictions programs. Due to the very limited sample size, it was difficult to	2008	8/9 (AMSTAR rating by the McMaster Health Forum)	0/2	1/2

Element	Services	Intervention	Focus of systematic review or economic evaluation	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
				draw any definite conclusions. Future research of similar nature may face practical and ethical challenges.				
	Self-management and support groups	Self-management resources	Outcomes of self-management education inventions for individuals with schizophrenia (66)	This review evaluates the efficacy of self-management education interventions for individuals with schizophrenia. Thirteen studies of randomized controlled trials with 1,404 participants met the inclusion criteria for meta-analysis. All interventions took place under group settings, and four core areas of self-management: medication management, recognition of early signs of relapse, development of plans to prevent relapse, and coping skills for persistent symptoms. Results from the meta-analysis demonstrated that self-management education resulted in better adherence to medication, and fewer relapses or re-hospitalizations. Nine studies showed significant reductions in symptom severity among individuals enrolled in self-management programs compared to the control group. Self-management also allowed patients to have a greater sense of autonomy and responsibility when dealing with schizophrenia. Although the impact of self-management education on psychosocial functioning was not explored in this review, overall findings suggest that these interventions have positive effects on patients with schizophrenia.	2010	8/11 (AMSTAR rating by the McMaster Health Forum)	0/13	0/13
			Effects of self-management interventions for individuals with serious mental illnesses (67)	This review aims to evaluate the effects of integrated care models that include self-management components in improving the general medical health and healthcare of people with serious mental illnesses. This review included 14 studies. Ten of them were	2014	6/10 (AMSTAR rating by the McMaster Health Forum)	0/14	0/14

Element	Services	Intervention	Focus of systematic review or economic evaluation	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
				randomized controlled trials (RCTs), and four were within-person pre-post designs. Group-based trainings and the use of peer trainers appeared to be associated with significant improvements in self-management skills. Due to limited studies available, it was unclear whether the interventions could be more effectively applied to a specific mental condition or mental illnesses in general. Aggregated evidence supports self-management models as an effective approach to improving certain health outcomes for individuals with serious mental illnesses. A desirable integrated care model should include patients and a system that are all responsive and receptive. Future research should include large RCTs to determine the features of self-management interventions responsible for improving outcomes.				
		Peer-run support groups	Effects of mutual help groups for individuals with mental health problems (68)	This review focuses on the effectiveness of mutual help groups in improving psychological and social functioning for individuals with mental health problems. This review included 12 studies with a total of 2,656 participants. There were four randomized controlled trials (RCTs), four prospective longitudinal studies, three controlled clinical trials, and one cross-sectional study. Benefits of groups on chronic mental illness were associated with the level of group involvement. For individuals with bereavement, no significance difference was found between group and non-group members. Improvements on self-reported and clinician-assessed outcomes were shown for those with depression and anxiety. Strong evidence from two RCTs demonstrated that the outcomes of mutual help groups and of professional interventions were equivalent.	2002	4/10 (AMSTAR rating by the McMaster Health Forum)	Not reported	0/12

Element	Services	Intervention	Focus of systematic review or economic evaluation	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
				Overall, mutual help groups had positive impact on individuals with chronic mental illness, bereavement, depression and anxiety, without any negative effects. More high-quality research should be conducted to assess the impact of groups across a broad range of mental health issues.				

Appendix B3: Systematic reviews relevant to Element 3 – Defining the basket of services for those with severe or persistent mental illness and/or substance use problems

Element	Service category	Services	Focus of systematic review or economic evaluation	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
Services for those with severe and persistent mental illness and addictions	Intensive treatment services	Early psychosis intervention	Effects of new generation antipsychotics for schizophrenia (139)	The review identified new generation antipsychotic drugs for people with first episode of schizophrenia, which include amisulpride, clozapine, olanzapine, quetiapine, risperidone, sulpiride, ziprasidone and zotepine. Only two studies were included. One study compared risperidone and haloperidol with a starting dose of 2mg twice daily to a maximum increment to 8mg. One study compared olanzapine and haloperidol, with a dosage of 5mg a day with a 5mg increment after seven days. It is unclear how olanzapine and risperidone affects the mental state. In both studies, participants left the study early due to adverse effects from haloperidol. There is limited evidence to draw conclusions on the effects of the new generation antipsychotics for people with a first episode of schizophrenia or schizophrenia-like psychoses.	2002	7/9 (AMSTAR rating from McMaster Health Forum)	0/2	0/2
			Effects of early intervention for psychosis (75)	The review identified seven studies to evaluate the effects of early detection, phase-specific treatments, and specialized early intervention for the treatment of people with prodromal symptoms or first-episode psychosis. Six studies were identified to address the prevention of psychosis and found little benefit in the use of olanzapine and cognitive behavioural therapy (CBT). The utilization of risperidone in combination of CBT and a specialized team had a greater effect than the use of a specialized team alone in the treatment of prodromal symptoms.	2009	10/10 (AMSTAR rating from McMaster Health Forum)	0/7	0/7

Element	Service category	Services	Focus of systematic review or economic evaluation	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
				There is some support for phase-specific treatments. CBT and a combination of a specialized team with family therapy had some effect on the treatment of prodromal symptoms. Moreover, phase-specific cannabis, psychosis therapy, and crisis assessment did not demonstrate any benefit or reduce hospitalization. When compared to specialized early intervention services with standard care, there was an improvement in compliance. There is limited evidence to draw conclusions on whether people with prodromal symptoms or first-episode psychosis can be helped by these therapy services.				
			Effectiveness of early detection to reduce duration of psychosis (140)	The 11 studies evaluated eight early detection initiatives to reduce long duration of untreated psychosis (DUP) (i.e. UK LEOCAT and REDIRECT, Scandinavian TIPS Programme, two Australian EPPIC services, Irish DETECT Initiative, Canadian PEPP, and Singapore EPIP). Scandinavian TIPS and Singapore EPIP initiatives reported significant reductions in DUP, however, these findings were not assessed for statistical significance. These campaigns involved more use of mainstream media, and more emphasis on promoting help-seeking and changing attitudes to psychosis. However, Australian EPPIC and Canadian PEPP services did not report significant reductions in DUP. None of the studies found clear evidence of an increase in referrals to services following an early detection initiative for people with first-episode psychosis.	2009	7/10 (AMSTAR rating from McMaster Health Forum)	1/11	0/11

Element	Service category	Services	Focus of systematic review or economic evaluation	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
				Overall, there is mixed evidence on the effectiveness of early detection of multi-focus initiatives. No studies evaluated initiatives targeting young people from non-health organizations.				
			Effectiveness of training in recognizing early signs of schizophrenia (86)	The review reported on the effectiveness of early warning signs intervention plus treatment as usual in comparison to treatment as usual for those with schizophrenia. The primary outcomes included time to relapse, hospitalization, and functioning, negative and positive symptomatology. There are positive benefits of training in early warning signs. It reduces rates of relapse and rehospitalization. However, the studies are very low quality. Additionally, the review reported insufficient evidence to support the use of early warning signs interventions alone or with low-dose antipsychotic maintenance medication. Three studies reported on satisfaction with care and found no significant differences between early warning signs training and treatment as usual. Nine studies reported improvement in general mental state.	2012	9/11 (AMSTAR rating from McMaster Health Forum)	1/34	0/34
		Primary day/night treatment	Effects of day hospital versus admission for acute psychiatric disorders (87)	The review reported that day hospital care is as effective as inpatient care for people with acute psychiatric disorders. Eleven studies reported that there are no differences in the following: 1) number lost to follow-up by one year between day hospital care and inpatient care; and 2) re-admittance to inpatient or day patient care after discharge. There is moderate evidence that the duration of admission is longer for patients in day hospital care than inpatient care. The review found some evidence from three randomized control trials that the duration of day	2010	11/11 (AMSTAR rating from McMaster Health Forum)	0/11	0/11

Element	Service category	Services	Focus of systematic review or economic evaluation	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
				patient care is longer for patients in day hospital care than inpatient care.				
			Effects of day hospital care for schizophrenia (97)	The review assessed the effects of day hospital care on service use, hospitalization and compliance. The authors wanted to determine if day hospital care (i.e. psychoanalytic psychotherapy, group therapy, expressive therapy, community meetings, education and support) could be used as an alternative to continuing outpatient care (i.e. appointments with one healthcare professional) for people with schizophrenia. For service use, there is a statistically significant reduction of inpatient admission rates following day hospital care. For hospitalization, there is limited evidence that suggests day hospital care reduces time in inpatient care. For compliance, the review reported no difference in outcome between day hospital care and outpatient care. Overall, there is insufficient evidence to determine if day hospital care has any advantage over outpatient care.	2009	11/11 (AMSTAR rating from McMaster Health Forum)	0/4	0/4
		Assertive community treatment	Effects of assertive community treatment and intensive case management in rural areas (89)	For assertive community treatment, one study reported no significant differences between the intervention group (i.e. utilization of a rural integrated service agency) and rural control groups for number of hospitalization days. Rate of hospitalization was significantly lower in the intervention group for the first two years. Another study found no significant differences were found for symptoms and medication compliance.	2005	4/10 (AMSTAR rating from McMaster Health Forum)	0/6	0/6
			Effectiveness of assertive community treatment for homeless persons with mental illness (88)	The review assessed the effectiveness of assertive community treatment in the rehabilitation of homeless persons with severe mental illness. Six RCTs reported that assertive community treatment subjects demonstrated a 37% greater reduction in	2003	6/11 (AMSTAR rating from McMaster Health	0/10	0/10

Element	Service category	Services	Focus of systematic review or economic evaluation	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
				homelessness and a 26% greater improvement in psychiatric symptom severity compared with standard case management treatments. Hospitalization outcomes were not significantly different between assertive community treatment and standard case management. Overall, there is evidence to support the utilization of assertive community treatment to improve outcomes for homeless persons with severe mental illness.		Forum)		
		Intensive case management (90)	Effects of intensive case management for severe mental illnesses	A total of 35 studies assessed the effects of intensive case management (ICM) in comparison with non-intensive case management and with standard community care among people with severe mental illness. The review additionally evaluated whether the effect of ICM on hospitalization depends on its fidelity to the assertive community treatment (ACT) model and found that it is better at decreasing time in hospital when ICM is adherent to the ACT model. Twenty-four studies reported on ICM in comparison to standard care and found that results favoured ICM in terms of length of hospitalization. Nine studies found participants in the ICM group were less likely to be lost to psychiatric services. The studies also reported patient satisfaction with ICM. ICM versus non-ICM The review reported that in comparison to non-ICM, ICM had no significant advantage in reducing the average length of hospitalization, service use, mortality, social functioning, mental state, behaviour, quality of life, satisfaction and costs. ICM was only reported to be more advantageous	2010	7/11 (AMSTAR rating from McMaster Health Forum)	1/35	3/35

Element	Service category	Services	Focus of systematic review or economic evaluation	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
				than non-ICM in reducing the rate lost to follow-up.				
			Effects of psychosocial interventions for mental illness and substance misuse (93)	The review assessed the effects of psychosocial interventions for reduction in substance use in people with a serious mental illness compared with standard care. The review identified 30 studies with low- to very low-quality evidence. Four RCTs evaluated long-term integrated care and found no significant differences on loss to treatment, death, alcohol use, substance use, global assessment of functioning, or life satisfaction. Four RCTs evaluated non-integrated intensive case management and usual treatment, and found no statistically significant difference for loss to treatment at 12 months. Seven RCTs reported on motivational interviewing plus cognitive behavioural therapy (CBT) and found that there is no difference for retaining participants at 12 months in comparison to usual treatment. Two RCTs reported that CBT had no significant difference for losses from treatment at three months or any benefit to mental state. Eight RCTs found no advantage for motivational interviewing alone compared with usual treatment when observing mental state. Overall, there is little evidence to support one psychosocial treatment over another to improve mental state in people with serious mental illness.	2013	10/11 (AMSTAR rating from McMaster Health Forum)	0/30	0/30

Element	Service category	Services	Focus of systematic review or economic evaluation	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
			Effects of assertive community treatment and intensive case management in rural areas (89)	For intensive case management, one study reported positive effects on quality of life and psychiatric rating scale scores. However, no significant differences were reported for hospitalization outcomes. There is some evidence to suggest that intensive case management in combination with supply of treatment and support services may be effective in community settings. However, further studies are needed to determine its effectiveness.	2005	4/10 (AMSTAR rating from McMaster Health Forum)	0/6	0/6
		Withdrawal management	Effects of benzodiazepines for alcohol withdrawal. (103)	In three studies, benzodiazepines performed better for seizures in comparison to placebos. In comparison to other drugs, there is a trend in favour of benzodiazepines for seizure and delirium control, severe life-threatening side effects, and dropouts. There is no definite conclusion about the effectiveness and safety of benzodiazepines in the treatment of alcohol withdrawal.	2009	10/11 (AMSTAR rating from McMaster Health Forum)	0/64	0/64
			Effectiveness of psychosocial and pharmacological treatments for opioid detoxification (101)	The review evaluated the effectiveness of any psychosocial plus any pharmacological intervention in comparison to opioid detoxification. The outcomes measures include helping patients to complete the treatment, reducing the use of substances and improving health and social status. Eleven studies reported four different psychosocial interventions (i.e. behavioural treatments such as contingency management and community reinforcement, structured counselling such as psychotherapeutic counselling, intensive role induction with or without case management, counselling and education on high-risk behaviour,	2011	10/10 (AMSTAR rating from McMaster Health Forum)	0/11	0/11

Element	Service category	Services	Focus of systematic review or economic evaluation	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
				therapeutic alliance intervention, and family therapy) and two pharmacological treatments (methadone and buprenorphine). The review reported on the comparison between only pharmacological interventions and any psychosocial intervention in combination with a pharmacological intervention. Three studies found favourable results with regards to number of participants using opioids at follow-up. Three studies reported favourable compliance rates following psychosocial intervention. The review further reported on the comparison between only pharmacological interventions and contingency management approaches in combination with any pharmacological intervention. For dropouts, there was a statistical significance in favour of contingency management associated with pharmacological intervention. For compliance, there were some positive results, but they were not statistically significant. Overall, there is limited evidence to suggest that psychosocial treatments in combination with opioid detoxification are effective in terms of treatment compliance, use of opiate, and reduction in loss of participants during follow-up.				
			Effects of magnesium for alcohol withdrawal (102)	The review assessed the effects of magnesium for the prevention or treatment of alcohol withdrawal syndrome (AWS) in hospitalized adults. The primary outcomes include number of participants with at least one seizure, number of participants who developed a first episode of delirium tremens, and number of participants who achieved a Clinical	2012	10/10 (AMSTAR rating from McMaster Health Forum)	1/4	0/4

Element	Service category	Services	Focus of systematic review or economic evaluation	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
				Institute Withdrawal Assessment for Alcohol (CIWA) score of 10 points or less. There were no studies identified that measured all of the identified primary outcomes. There is insufficient evidence to determine the effects of magnesium for the prevention or treatment of AWS in hospitalized adults.				
			Effects of anticonvulsants for alcohol dependence (141)	Seventeen studies compared anticonvulsants with placebo. There is no evidence for the reduction of dropouts or withdrawals for individuals taking anticonvulsants. There is some moderate-quality evidence to suggest anticonvulsants reduce drinking and heavy drinking. Eight studies compared anticonvulsants with other medications (i.e. naltrexone). There was no difference in dropout rates, severe relapse rates or continuous abstinence rates when comparing anticonvulsants and naltrexone. Anticonvulsants were associated with fewer heavy drinking days and lower withdrawal rates. Overall, there is limited evidence to fully assess the benefits and risks of anticonvulsants for the treatment of alcohol dependence.	2013	11/11 (AMSTAR rating from McMaster Health Forum)	0/25	0/25
			Effects of detoxification treatments for opioid dependence (138)	One moderate-quality study compared buprenorphrine with clonidine for detoxification. No significant differences were found for dropout and acceptability of treatment. One low-quality study compared maintenance treatment (i.e. buprenorphine-naloxone) and detoxification treatment (buprenorphine). There were positive results for maintenance treatment for reduced dropout rates. There were no significant differences	2014	10/10 (AMSTAR rating from McMaster Health Forum)	0/2	0/2

Element	Service category	Services	Focus of systematic review or economic evaluation	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
				for use of opiate. There is limited evidence to draw conclusions on the effectiveness of any detoxification treatment alone in combination with psychosocial intervention, compared with no intervention, other pharmacological intervention or psychosocial interventions, on improving health outcomes.				
		Intensive harm reduction and relapse prevention	Effects of psychological and pharmacological interventions for preventing recurrence of depression (98)	Three studies were identified to assess the efficacy of pharmacological and psychological interventions for preventing relapse or recurrence of depression in adults with depression in primary care. One study conducted an RCT and allocated participants to three groups: computerized cognitive-behavioural therapy (CCBT), treatment as usual, and combination of both CCBT and treatment as usual. The main outcome was an increase of at least nine points on the Beck Depression Inventory when assessed at six, nine or 12 months. However, the differences were not statistically significant. Another study compared Keeping the Blues Away (KBA) program (10 steps including problem solving, coping skills, and other psychosocial evidence-based strategies to reduce severity and relapse of depression) with usual care. The attrition rate was higher in the intervention group than usual care. However, the differences were not statistically significant. The third study focused on a relapse prevention program (a combination of depression specialist appointments, three telephone calls and a written relapse prevention plan) in comparison to usual	2014	9/10 (AMSTAR rating from McMaster Health Forum)	0/3	0/3

Element	Service category	Services	Focus of systematic review or economic evaluation	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
				primary care. At 12 months of follow-up, only 10.3% of the participants in the relapse prevention program missed interviews in comparison to 20.8% of the usual primary care group. However, the differences were not statistically significant. Overall, there is limited evidence to determine which intervention is superior for preventing relapse or recurrence of depression in primary healthcare settings.				
			Effectiveness of training in recognizing early signs of schizophrenia (86)	Thirty-four studies were identified to determine the efficacy of early warning signs interventions (i.e. face-to-face education, self-monitor or health professionals learning to monitor on behalf of the patient, seeking early help or self-coping methods) plus treatment as usual involving and not involving therapy, on time to relapse, hospitalization, function, and negative and positive symptomatology. The review reported a lower rate of relapse and of re-hospitalization in the early warning sign interventions group than with usual care. Time to relapse and time to re-hospitalization did not significantly differ between the intervention and control groups. There is insufficient evidence to support the use of early warning signs interventions alone or with intermittent medication use.	2012	9/11 (AMSTAR rating from McMaster Health Forum)	1/34	0/34

Element	Service category	Services	Focus of systematic review or economic evaluation	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
			Efficacy of antidepressants and psychological therapies in preventing recurrence of depression (99)	The review assessed the efficacy of antidepressants and psychological therapies in preventing the relapse and recurrence of depression in older people (60 years or older). Six of the seven studies compared antidepressants with placebo. At 12-months follow-up, there was a statistically significant difference favouring antidepressants (tricyclic antidepressants such as nortriptyline and dothiepin, and SSRIs such as escitalopram, citalopram, and sertraline) in reducing recurrence when compared with placebo. However at both 24- and 36-month follow up, there were no statistically significant differences. There were no significant differences in dropout rates due to side effects at six and 12 months. Only one study compared an antidepressant (notriptyline) with a psychological therapy (interpersonal therapy (IPT)). There was no significant difference in terms of depression recurrence. However, there is limited evidence to draw any clear conclusions. Two studies compared a combination of maintenance antidepressant and psychological therapies (CBT and IPT) with antidepressant alone. There were no significant differences in terms of depression recurrence. However, there is limited evidence to draw any clear conclusions. Only one study compared antidepressants in combination with psychological therapies, and psychological therapies alone. There were more positive effects from the antidepressants and psychological therapies combination at 24 months	2012	10/11 (AMSTAR rating from McMaster Health Forum)	0/7	0/7

Element	Service category	Services	Focus of systematic review or economic evaluation	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
				and 36 months of follow-up. Overall, there is limited evidence to draw firm conclusions on the following: optimum period of antidepressant maintenance treatment, characteristics of patients most likely to benefit from long-term antidepressant treatment, the use of psychological therapies for recurrence prevention, and the effects of combining psychological therapies with antidepressants.				
			Effectiveness of low-intensity interventions in preventing relapse of depression (100)	The review found that there is limited research specifically focused on the effectiveness of low-intensity interventions for relapse prevention. Instead, 17 studies were identified that evaluated high-intensity therapy interventions (i.e. therapist-delivered cognitive behavioural therapy, group mindfulness-based cognitive therapy). Of these studies, one randomized control trial that evaluated a collaborative care-type program (i.e. face-to-face appointments, telephone and postal contact with trained specialists) reported no difference between patients receiving the intervention and those in treatment as usual in terms of relapse of depression at the 12-month follow-up. One economic evaluation found that the intervention may be cost-effective when compared to treatment as usual, but it is not possible to draw a firm conclusion. There is limited evidence to determine the clinical effectiveness or cost-effectiveness of low-intensity interventions for the prevention of relapse or recurrence of depression.	2010	8/10 (AMSTAR rating from McMaster Health Forum)	2/17	0/17

Element	Service category	Services	Focus of systematic review or economic evaluation	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
		Concurrent disorder treatment	Efficacy of antidepressants in treating depression and substance use (92)	The review discussed the efficacy of antidepressant medications for treatment of combined depression and substance use disorders. Fourteen studies were selected for this analysis - five studies on tricyclic antidepressants, seven studies on selective serotonin reuptake inhibitors, and two studies from other classes. The review reported that antidepressant medication for treatment of depressive syndromes (i.e. major depression or dysthymia) for at least six weeks with adequate doses are effective among patients with alcohol or drug dependence. The studies indicated that medication is effective in treating depression and reduces quantity of substance use. The authors' findings are consistent with the recommendation that co-occurring depression be diagnosed and treated after a brief period of abstinence from substance use. There are positive effects in antidepressant treatment when a manual-guided psychosocial intervention and cognitive behavioural therapy precedes antidepressant medication.	2003	9/11 (AMSTAR rating from McMaster Health Forum)	0/14	0/14
	Intensive therapies	Cognitive behavioural therapy	Effects of cognitive behavioural therapy for depression (142)	The review examined the relationship between quality and outcome in cognitive behavioural therapy (CBT) for depression. The review reported no significant differences between CBT and psychodynamic therapy interventions. The authors found that lower-quality CBT trials were generally associated with better outcomes for CBT, which means low-quality trials may reduce the reliability and validity of results. It highlights the importance of maintaining rigorous methodological quality in psychotherapy trials.	2010	10/11	Not reported in detail	0/192

Element	Service category	Services	Focus of systematic review or economic evaluation	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
			Efficacy of cognitive behavioural therapy for anxiety disorders (105)	Twelve studies assessed the effects of cognitive behavioural therapy (CBT) (i.e. cognitive therapy, psychoeducation, relaxation training, graded exposure, problem-solving training, worry-behaviour prevention, behavioural activation) for older people. The review reported that there is evidence to suggest that CBT was more effective than treatment as usual (TAU) at zero-month and six-month follow-up for reducing anxiety symptoms. When compared to other existing meta-analyses, there is some evidence to suggest that there is lower efficacy of CBT for anxiety disorders in older people when compared to working-age people. Two of the 12 studies compared CBT for anxiety disorders with pharmacotherapy (SSRIs such as paroxetine and sertraline) in older people and found favourable effects for pharmacotherapy.	2010	9/11 (AMSTAR rating from McMaster Health Forum)	0/12	0/12
			Effects of behavioural therapies for depression (106)	Four very low-quality studies that assessed behavioural therapies (two studies on extended behavioural activation, one on acceptances and commitment therapy and one on competitive mind training) in comparison to treatment as usual for depression, found positive effects in clinical response rates and reduction in severity of depression symptoms from behavioural therapies. However, no significant differences were found in terms of treatment acceptability. No studies reported on the improvement in overall symptoms when comparing behavioural therapies and treatment as usual. Overall, there is limited evidence to draw a clear conclusion on the efficacy, effectiveness and acceptability of behavioural therapies for depression.	2013	10/10 (AMSTAR rating from McMaster Health Forum)	0/4	0/4

Element	Service category	Services	Focus of systematic review or economic evaluation	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
			Effectiveness of cognitive behavioural therapy for schizophrenia (108)	Fifty studies were included in the meta-analysis on the effectiveness of cognitive behavioural therapy (CBT) for schizophrenic symptoms. The review reported that CBT only has a small therapeutic effect on schizophrenic symptoms. The authors noted that given the small effect size, there is very little evidence to recommend CBT for schizophrenia. The review did not examine the effect of CBT on depression, anxiety, or distress as a result of psychotic symptoms.	2013	8/11 (AMSTAR rating from McMaster Health Forum)	Not reported	Not reported
			Effectiveness of cognitive behavioural therapy for anxiety and depression (55)	The review aimed to determine the effectiveness of multi-modal cognitive behavioural therapy (CBT) for symptoms of anxiety and depression in primary care. Twenty-nine studies were identified, which included CBT compared with no primary care treatment (seven studies), CBT compared with primary care treatment as usual (14 studies), and CBT in combination with primary care treatment as usual compared with primary care treatment as usual (nine studies). For CBT in comparison to no primary-care treatment, the studies examined face-to-face CBT in primary care, computerized/online CBT and guided self-help. Overall, multi-modal CBT was more effective than no primary care treatment for anxiety and depression symptoms. There is evidence to suggest computerized/online CBT to be effective. The meta-analysis reported that multi-modal CBT was more effective than primary care treatment as usual for anxiety and depression symptoms. The strongest reported evidence is for multi-modal CBT for anxiety, face-to-face CBT and guided self-help	2014	8/11 (AMSTAR rating from McMaster Health Forum)	0/29	0/29

Element	Service category	Services	Focus of systematic review or economic evaluation	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
				CBT. The meta-analysis reported that multi-modal CBT in addition to primary care treatment as usual was more effective than primary care treatment as usual for depression symptoms. A sub-analysis found that the strongest evidence is for face-to-face CBT. There is some evidence to suggest CBT is effective for symptoms of anxiety and depression in primary care.				
			Effectiveness of therapist-supported internet cognitive behavioural therapy for anxiety (57)	The review examined the effects of therapist-supported internet CBT (ICBT) (i.e. online modules on psychoeducation, cognitive restructuring, behavioural activation, challenging core beliefs, and relapse prevention, with email and phone support from a therapist for module activities) for the reduction of anxiety symptoms and remission of anxiety disorder in adults, in comparison to no treatment, unguided CBT, or face-to-face CBT. Twenty-two of the 30 low- to moderate-quality studies compared therapist-delivered ICBT with a waiting list, attention, information, or online discussion group only control. There was no statistically significant clinical improvement in anxiety or reduction in the severity of disorder-specific anxiety symptoms. Fourteen of the 30 low- to moderate-quality studies found a significant decrease in general anxiety following ICBT. Overall, there is low- to moderate-quality evidence to indicate that ICBT with therapist support was significantly more effective than no treatment. Four low- to very low-quality studies indicated that	2013	11/11 (AMSTAR rating from McMaster Health Forum)	0/30	Not reported

Element	Service category	Services	Focus of systematic review or economic evaluation	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
				there were no significant differences in the effectiveness of ICBT with therapist support and unguided CBT, in the primary outcomes of clinical improvement in anxiety, reduction in the severity of disorder-specific anxiety symptoms, and the reduction in general anxiety symptom severity. Six studies compared therapist-supported ICBT with face-to-face CBT and found no significant differences in outcomes.				
			Effects of antidepressants and cognitive behavioural therapies for major depressive disorders (109)	The studies that compared second-generation antidepressants (fluoxetine, fluvoxamine, paroxetine, sertraline, venlafaxine, citalopram, and escitalopram) and cognitive behavioural therapy, showed that patients had lower but not statistically significant remission rates or change to depression scores than patients receiving CBT. When comparing second-generation antidepressants in combination with second-generation antidepressants and cognitive behavioural therapy, there were no statistical significant differences in rates of either remission or response. Overall, the review reported there is a lack of evidence to conclude on the benefits and harms of second-generation antidepressants and cognitive behavioural therapies in initial treatment of major depressive disorder.	2015	10/11 (AMSTAR rating from McMaster Health Forum)	3/14	0/14
	Case management services	Case management and recovery support	Effects of case management for substance use disorders (94)	There is some evidence supporting the use of case management for persons with substance use disorders, but only as complement and reinforcement to existing evidence-based services in the system. Inaccessibility and unavailability of	2006	11/11 (AMSTAR rating from McMaster Health	0/15	2/15

Element	Service category	Services	Focus of systematic review or economic evaluation	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
				services in the community are barriers and may reduce the effects of case management. In one study in a criminal justice setting, 455 paroled ex-offenders with a history of intravenous drug use were grouped in either assertive community treatment or standard parole. The outcomes assessed were drug use, reoffending, and HIV risk behaviour. The studies reported small and insignificant results for all outcomes. In one study focusing on individuals within the criminal justice system, there was a statistically significant reduction in drug abuse. Evidence that case management reduces drug use or produces other beneficial outcome is not conclusive.		Forum)		
			Effects of intensive care management for severe mental illness (90)	Twenty-four studies compared intensive case management (ICM) (i.e. assertive community treatment model, assertive outreach model consisting of multidisciplinary team-based approach, 24-hour emergency cover, or case management model) and standard care, and reported statistically significant superiority of ICM over standard care for length of hospitalization and retention in care. However, no differences were found in results for mental state, social functioning and quality of life. The review reported no significant differences in the effects of ICM compared to non-ICM (a caseload over 20 people) for outcomes such as service use, mortality, social functioning, mental state, behaviour, quality of life, satisfaction and	2010	7/11 (AMSTAR rating from McMaster Health Forum)	1/38	0/38

Element	Service category	Services	Focus of systematic review or economic evaluation	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
				costs. The authors indicate that ICM may be useful for people with severe mental illness and who have a high level of hospitalization.				
		Addictions transitional case management services	Effectiveness of health system services and programs for youth-to-adult transitions in mental health care (95)	The studies on transition programs reported positive effects for more youth independence, control of their health and overall life. Characteristics of these programs included an individualized assessment and treatment plan, and a lifespan approach in various stages of their development. Further success of these programs involved the inclusion of social, educational, occupational, behavioural, and cognitive interventions aimed at long-term recovery. However, there is limited research on the effectiveness of transition services/programs. Barriers included logistical (ineffective system communication), organizational (negative incentives), and those related to clinical governance.	2013	7/10 (AMSTAR rating from Program in Policy Decision-making)	0/6	6/6
			Process of discharge planning in mental health care (143)	The review reported that communication is the most important factor in effective discharge planning. One study found that a lack of communication between clinical staff and families had an impact on the level of satisfaction. Four studies found a correlation between individuals' and family members' level of involvement in discharge planning. There are mixed results in terms of the impact of discharge planning on reducing re-admission rates. Overall, further research is needed to determine the process of discharge planning for individuals living with mental illness.	2011	3/9 (AMSTAR rating from McMaster Health Forum)	4/19	Not reported

Element	Service category	Services	Focus of systematic review or economic evaluation	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
	Transition services	Transition from acute care to the community	Evaluation of length of hospitalization for people with mental illness (114)	Limited and very low-quality studies found that with short-term stays, there is some evidence in the improvement of mental state, readmission to hospital, and participants lost-to follow-up. There were positive effects for short-stay hospitalization for social functioning. Overall, there is some evidence to support short stays in hospitals, but further research is needed to confirm these results.	2012	10/11 (AMSTAR rating from McMaster Health Forum)	0/6	0/6
			Evaluation of discharge planning in mental health care (115)	Eleven studies reported that discharge planning had lower readmission rates, improvement in mental health outcomes, and higher adherence to continuity of care among people with mental health disorders. However, there was no effect on quality of life.	2008	5/11 (AMSTAR rating from McMaster Health Forum)	1/11	Not reported
			Effectiveness of health system services and programs for youth to adult transitions in mental health care (95)	The studies on transition programs reported positive effects for more youth independence, control of their health and overall life. Elements that facilitate transition from child and adolescent mental health services (CAMHS) to adult mental health services (AMHS) included transition-related meetings between caseworkers and parents, capacity building and education to help establish continuity of care. There is a gap in meeting the transition needs of youth with mental disorders. Additionally, there is limited research on the effectiveness of transition services/programs.	2013	7/10 (AMSTAR rating from McMaster Health Forum)	0/6	6/6
			Assessment of alternatives to acute inpatient care for psychiatric patients (116)	The review identified three types of acute care: acute continuous day care and hospitals (i.e. close supervision and multi-modal approach), assertive outreach care (i.e. pro-active follow-up, direct provision of comprehensive health and social care in the community, multidisciplinary team approach), and home acute care (i.e. assessment and	2010	2/9 (AMSTAR rating from McMaster Health Forum)	Not reported	Not reported

Element	Service category	Services	Focus of systematic review or economic evaluation	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
				treatment available for 24 hours). There is evidence to suggest that acute care in these three formats have positive effects on social function, long-term follow-ups, and improvement in mental state. There have been higher levels of patient satisfaction with regards to assertive outreach care in comparison to other services. There is evidence to suggest that home acute care is associated with reductions in hospital admission, an increase in patient symptomatic recovery and social adaptation, and reduction in family burden. Overall, the authors suggested that combining these three formats of acute care is an effective alternative to conventional acute hospital care. Furthermore, they indicate a combination of acute care services may increase continuity of care and optimize resources.				
			Effectiveness of transitional interventions in reducing psychiatric readmissions (117)	Fifteen studies reported that effective components of transitional interventions included pre- and post-discharge patient psychoeducation (i.e. home visits, hotlines, peer support, family education), structured needs assessment, medication reconciliation, transition managers and inpatient/out-patient provider communication. Seven studies that reported on transitional interventions (i.e. psychoeducation targeting disease management and living skills, and structured assessments of patients' discharge needs) had a statistically significant impact on readmission.	2012	3/9 (AMSTAR rating from McMaster Health Forum)	1/15	Not reported
	Social determinant support services	Clubhouse	Effectiveness of psychosocial treatments for mental illness and substance misuse (93)	The review examines the effectiveness of psychosocial treatment, including 12-step recovery, motivational interviewing, family psychoeducation, individual skills training, and combinations of the above, on individuals with severe mental illness and concurrent substance misuse.	2013	11/11 (AMSTAR rating from McMaster Health Forum)	0/34	1/34

Element	Service category	Services	Focus of systematic review or economic evaluation	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
				In this review, 32 randomized control trials were included and were set in a combination of hospital, community and jail settings. The trials included individuals with severe mental illnesses, specifically diagnosed with schizophrenia, schizoaffective disorder, psychosis, or who had a documented substance use disorder. A pooled analysis of seven trials compared cognitive behavioural therapy and motivational interviewing to treatment as usual and found greater social functioning at 12 months, greater average life satisfaction at six months, and higher client satisfaction at 10 months within the treatment group. Two trials assessing contingency management against standard care found that treated patients were less likely to have stimulant-positive urine tests at 12 weeks, but not at six months. Further, it demonstrated that injection drug use was significantly lower in the treatment arm compared to the control arm at three months, but not at the six-month follow-up. The review showed low-quality evidence for no difference between integrated models of care and treatment as usual, and for lost to treatment, substance use, or days spent in jail and hospitals. There was some evidence to show a positive effect for combined cognitive behavioural therapy and intensive case management compared to treatment as usual over all time periods, as well as for reducing the number of convictions at 12 and 30				

Element	Service category	Services	Focus of systematic review or economic evaluation	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
				months. In examining motivational interviewing compared to treatment as usual, there was some evidence to show that it reduced substance use and increased the likelihood that individuals abstained from alcohol use after three sessions. This effect had decreased, however, by the three- and six-month follow-up. Overall, there was not sufficient evidence to draw conclusions that one psychosocial treatment will reduce substance use or improve mental well-being. There was however, positive results from motivational interviewing for substance use, and, when combined with cognitive behavioural therapy, improved mental state, life satisfaction and social functioning.				
			Effectiveness of low-intensity interventions in preventing relapse of depression (100)	The review aims to examine the clinical effectiveness and cost-effectiveness of low-intensity interventions to prevent relapse in patients with diagnosed depression. No reviews met the criteria for part A of the review which examined low-intensity interventions delivered by para-professionals, peer-support or well-being practitioners. For part B of the review, which looked to evaluations of interventions involving mental health professionals, 17 reviews met the inclusion criteria. Interventions were considered low-intensity when there was less than six hours of patient care. The review looked to mindfulness cognitive behavioural therapy, brief intervention, and other	2010	8/11 (AMSTAR rating from McMaster Health Forum)	2 /17 (14 published)	0/17 (14 published)

Element	Service category	Services	Focus of systematic review or economic evaluation	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
				forms of group therapy. The effectiveness of interventions at preventing relapse and recurrence are mixed, with some studies suggesting positive effects and others showing no significant effects. This paper reported no significant difference in the clinical effectiveness of providing patients with face-to-face, telephone and postal contact with trained health professionals, when compared to treatment as usual. Two studies met the inclusion criteria to assess cost-effectiveness and found that providing patients with face-to-face, telephone and postal contact ranges from borderline cost-effective at its highest QALY to not cost-effective. Overall, there was inadequate evidence to determine with certainty the clinical effectiveness and cost-effectiveness of low-intensity interventions to prevent the recurrence of depression.				
			Effectiveness of psychological and psychosocial interventions for cannabis cessation (107)	This review aims to examine the evidence on psychological and psychosocial interventions for cannabis cessation. The review included 33 randomized control trials, 26 of which address the general population, and seven which examined cannabis users with psychiatric conditions. Among general population studies, cognitive behavioural therapy proved significantly better than waitlist following treatment on reduction of cannabis use, severity of dependence and cannabis problems. These outcomes were maintained at the	2014	9/10 (AMSTAR rating from McMaster Health Forum)	2/33	0/33

Element	Service category	Services	Focus of systematic review or economic evaluation	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
				nine-month follow up. Additional studies examined cognitive behavioural therapy delivered via phone, internet, and internet counselling, and found significant improvement over waitlist. One study examined supportive-expressive dynamic psychotherapy and found it improved abstinence rates and symptom severity. Studies on motivational interviewing showed significantly better results than waitlist or assessment only, showing significant reductions in cannabis use. Five studies also examined monetary vouchers for abstinence as well as cognitive behavioural therapy plus vouchers, and found that both gave better results than cognitive behavioural therapy alone for continuous abstinence (more than six weeks). At the 14-month follow-up however, positive results were only maintained for the cognitive behavioural therapy plus voucher intervention. Studies examining cognitive behavioural therapy and treatment as usual compared to just treatment as usual for psychiatric populations found few significant differences after follow-up. A sub-group analysis however, showed that longer courses of cognitive behavioural therapy appeared more effective than shorter courses of motivational interviewing. Comparison of group versus individual treatment showed a slight advantage for individual treatment, but this was concluded based on limited data.				

Element	Service category	Services	Focus of systematic review or economic evaluation	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
				Overall, there is some evidence that cognitive behavioural therapy of between six and 14 sessions may be more effective than brief motivational interviewing interventions. Further, the addition of vouchers to these interventions may increase long-term outcomes.				
		Housing support	Effectiveness of residential programs for mental illness and substance use disorders (118)	This review examines the effectiveness of residential programs for people with dual disorders. The review included 10 randomized controlled studies of residential interventions. Five studies compared integrated mental health and substance abuse treatment to substance abuse treatment programs, and demonstrated that the integrated approach was associated with higher rates of completion, but there was no difference in terms of study outcomes. Five studies examined long-term (more than one year) residential programs, comparing a low-demand integrated residential dual-disorder program to two modified therapeutic communities. Individuals in the low-demand program were more likely to remain in the program and to experience successful discharges. Overall, nine out of 10 studies included in the review showed positive effects of both short and long-term integrated residential treatments. This is particularly true for homeless or treatment non-responding populations. A lack of methodological rigour in many of these studies indicates that further research is necessary and results should be	Not reported	3/10 (AMSTAR rating from McMaster Health Forum)	0/10	1/10

Element	Service category	Services	Focus of systematic review or economic evaluation	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
				considered with some caution.				
			Evaluation of housing for people with mental illness (119)	This review aims to examine the efficacy and feasibility of new models of community and hospital care for psychiatric patients. No studies met the inclusion criteria set out in the protocol. Therefore no conclusions could be made about this intervention.	2006	5/6 (AMSTAR rating from McMaster Health Forum)	0/0	0/0
			Effectiveness of interventions to improve health and housing among homeless people (88)	This review examines evidence on interventions that improve the health of homeless people with severe mental illness. In this review 84 studies were relevant, of which only 10 were found to be of moderate quality. The review focuses on these studies. The review suggests that the provision of housing during discharge planning from hospital was associated with positive housing outcomes of maintaining stable housing. This finding however, is contrary to one article included that concluded there was no significant difference. Two studies included found structured education modules to be effective at reducing risky behaviour in homeless youth with HIV. Additionally, one study reported that individual counselling was associated with reduced substance abuse. Another study found case management to be an effective intervention for homeless people with HIV, improving the mental health use of services and overall health of participants. Overall, this review concludes that the provision of	2009	9/10 (AMSTAR rating from McMaster Health Forum)	0/84	0/84

Element	Service category	Services	Focus of systematic review or economic evaluation	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
				housing as an intervention can be effective for improving health as well as housing status among mentally ill homeless individuals. This service is most effectively provided when delivered as part of an integrated model.				
		Social recovery, rehabilitation and recreation	Assessment of alternatives to acute inpatient care for psychiatric patients (116)	The review identified three types of acute care: acute continuous day care and hospitals (i.e. close supervision and multi-modal approach), assertive outreach care (i.e. pro-active follow-up, direct provision of comprehensive health and social care in the community, multidisciplinary team approach), and home acute care (i.e. assessment and treatment available for 24 hours). There is evidence to suggest that acute care in these three formats have positive effects on social function, long-term follow-ups, and improvement in mental state. There have been higher levels of patient satisfaction with regards to assertive outreach care in comparison to other services. There is evidence to suggest that home acute care is associated with reductions in hospital admission, increase in patient symptomatic recovery and social adaptation, and reduces family burden. Overall, the authors suggested that combining these three formats of acute care is an effective alternative to conventional acute hospital care. Furthermore, they indicate a combination of acute care services may increase continuity of care and optimize resources.	2010	2/9 (AMSTAR rating from McMaster Health Forum)	Not reported	Not reported
			Effectiveness of social skills training for schizophrenia (64)	The review aims to determine the effectiveness of social-skills training on individuals with severe schizophrenia. The review included 23 randomized control trials. Interventions were advantageous to individuals with	2007	7/10 (AMSTAR rating from McMaster Health Forum)	Not reported	0/23

Element	Service category	Services	Focus of systematic review or economic evaluation	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
				severe schizophrenia, with strongest effects on the content of mastery of skills directly taught in the training, followed by performance-based measures of social and independent living, and psychosocial functioning. It showed the least effect on reducing symptoms. This final outcome of negative symptoms was not found to be statistically significant. The average effect size of social-skills training on psychosocial functioning was significant and consistent among studies included in this review. Overall, the review provides evidence for the use of social-skills training to improve social adjustment, independent living and other functional outcomes.				
			Effectiveness of mutual help groups for mental illness (68)	This review aims to examine the effectiveness of participating in mutual help groups for people with mental health problems. Interventions were considered mutual help groups if they were primarily run or facilitated by someone with the same problem or similar diagnosis as members. The review included 12 studies examining effects on chronic mental illness, depression/anxiety and bereavement. Studies ranged in design, four of which were randomized controlled studies and the other eight quasi-experimental or prospective longitudinal. Though of different designs, all three studies examining chronic mental illness reported improved mental health outcomes from continuous	2006	4/10 (AMSTAR rating from McMaster Health Forum)	Not reported	0/12

Element	Service category	Services	Focus of systematic review or economic evaluation	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
				attendance at group sessions. In one study, long-standing members reported lower neurotic distress, higher well-being and less use of psychiatric medication when compared to new members. Three studies examined groups for depression and one for depression and anxiety. Of these, two provide evidence of effectiveness and two do not. One of these studies examined the use of internet support groups and found that one-third of members showed a resolution or improvement in depression symptoms. This change was associated with more frequent use. Five studies examined groups for bereavement, two of which showed some effectiveness for the intervention, while three showed no significant difference. Overall, the review provides promising evidence that mutual help groups can be effective for individuals with chronic mental illness, depression or anxiety, and bereavement.				
	Back-on-track	Mandated impaired driver interventions	Effectiveness of interventions in reducing recidivism among driving under the influence offenders (121)	The review aims to assess the evidence on the design and delivery of services for those convicted of driving under the influence (DUI) to prevent recidivism. The review included 42 studies and examined a range of interventions. Of these studies, 11 evaluated the effectiveness of ignition interlock. Four of these studies reported effectiveness, however recidivism rates increased after the device was removed. Three studies	Not reported	8/10 (AMSTAR rating from McMaster Health Forum)	5/42	42/42

Element	Service category	Services	Focus of systematic review or economic evaluation	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
				reported effectiveness when the device was in the car, and one reported no difference for those who voluntarily installed the interlock device when compared with those for whom installation was mandatory. Six studies examined the effectiveness of education programs on changing behaviour. Five studies found a reduction in DUI offences after completing the education program. All of these five education programs, however, had other components involved, including motivation enhancement. Seven studies examined victim impact panels, of which three reported no differences between the intervention and control. Three other studies demonstrated a lower number of re-arrests after attendance at victim impact, compared to the control. The final study reported that individuals who attended the panels were more likely to be re-arrested than the control group. Four studies examined Intensive Supervision Programs, two of which reported recidivism up to five years post-offence; one that reported a reduction in re-arrest rates directly after the intervention, and one that found both no difference in arrest rates and an increase in re-arrests among one group. Four studies examined Driving Under the Influence Courts, two of which resulted in lower recidivism rates than comparison groups, one that reported an increase in the rates of recidivism, and the remaining study reported no effect on self-reported				

Element	Service category	Services	Focus of systematic review or economic evaluation	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
				or official reports of drinking and driving. Ten studies examined other interventions and found that the use of fines and mandatory licence withdrawal effectively reduced recidivism. Serving fewer than 120 days in prison was associated with the highest levels of recidivism, and lower levels were shown for those who served between four and six months. Overall, it is reasonable to conclude that multi-component programs are more effective than those that targeted only one aspect.				

McMaster University

McMaster HEALTH FORUM

>> Contact us

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

>> Follow us

mcmasterhealthforum.org
healthsystemsevidence.org
healthsystemslearning.org

tinyurl.com/mhf-YouTube
tinyurl.com/mhf-Facebook
tinyurl.com/mhf-Twitter

EVIDENCE >> INSIGHT >> ACTION