

Rapid Evidence Profile #40

(11 January 2023)

Question

What is the type and scale of mental-wellness challenges facing **Canadians** (particularly coming out of the pandemic), what **mental health system-transformation initiatives** have what types of supporting evidence (and are underway across Canada and in provincial and territorial health systems) to address these challenges, and what broader system-transformation initiatives are underway into which any mental-wellness initiatives would need to fit?

What we found

To inform current knowledge related to mental health system-transformation initiatives, we identified evidence, as well as experiences from Canadian provinces and territories (See Box 1 for a description of our approach). We analyzed our findings using the framework below.

Organizing framework

- Type of mental-wellness challenges affecting Canadians
 - Prior to or irrespective of the impact of the COVID-19 pandemic
 - During the COVID-19 pandemic
- Scale of mental-wellness challenges affecting Canadians
 - Who is affected (e.g., specific populations)
 - How they are affected (e.g., types of conditions)
 - For how long they are affected (e.g., time-limited versus long-term)
- Mental health system-transformation initiatives underway across Canada
 - Level of transformation initiatives
 - National
 - Provincial/territorial
 - Regional/municipal
 - Types of health-system arrangements being transformed
 - Governance arrangements
 - Financial arrangements
 - Delivery arrangements
 - Types of sectors involved
 - Home and community care

Box 1: Our approach

We searched for evidence from 2000 onwards to capture any evidence addressing the question by searching Health Evidence, Health Systems Evidence (HSE), and PubMed. We identified jurisdictional experiences by hand searching government and stakeholder websites.

We searched for guidelines, full systematic reviews (or review-derived products such as overviews of systematic reviews), rapid reviews, non-systematic reviews, protocols for systematic reviews, and titles/questions for systematic reviews or rapid reviews that have been identified as either being conducted or prioritized to be conducted. We included single studies if no relevant guidelines or reviews were identified.

We appraised the methodological quality of full systematic reviews and rapid reviews that were deemed to be highly relevant using AMSTAR. Note that quality appraisal scores for rapid reviews are often lower because of the methodological shortcuts that need to be taken to accommodate compressed timeframes. AMSTAR 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 or to broader social systems. We appraised the quality of the highly relevant guidelines using three domains in AGREE II (stakeholder involvement, rigour of development, and editorial independence) and classified guidelines as high quality if they were scored as 60% or higher on each domain.

This rapid evidence profile was prepared in the equivalent of three days of a 'full-court press' by all involved staff.

- Primary care
- Specialty care
- Rehabilitation care
- Long-term care
- Public health
- Types of broader human services involved in the transformation
 - Childcare
 - Children's and early-years services
 - Disability services
 - Employment and income supports
 - Housing services
 - Homelessness services
 - Other community programs.
- Broad system-transformation initiatives into which mental-wellness initiatives would need to fit

We identified 62 evidence documents:

- One guideline
- 30 full systematic reviews
- One rapid review
- One non-systematic review
- 29 single studies.

We outline in narrative form below our key findings related to the question from highly relevant evidence documents and based on our scan of initiatives across Canada. This is accompanied by Table 1 that provides a summary of the total number of evidence documents in each domain of the organizing framework, Table 2a and Table 2b, which provide details about key findings from each of the highly relevant evidence documents, and Table 2c, which provides information about the key findings from the jurisdictional experiences supporting mental health system-transformation initiatives across Canada.

A detailed summary of our methods is provided in Appendix 1, and the full list of newly identified evidence documents (including those deemed of medium and low relevance) in Appendix 2 (mental health challenges) and Appendix 3 (mental health system-transformation initiatives). We included the hyperlinks of excluded documents (at the final stage of reviewing) in Appendix 4.

In our key findings summary section for the evidence documents, we have organized our write-up about mental-wellness challenges affecting Canadians broadly according to the type and scale of mental-wellness challenges, both prior to or irrespective of the impact of the COVID-19 pandemic as well as during the COVID-19 pandemic, as evidence about who is affected, how they are affected, and for how long they are affected overlap considerably.

In our key findings summary section for the jurisdictional scans, we did not report anything related to mental-wellness challenges affecting Canadians, as relevant insights were captured through evidence documents. Based on the mental health system-transformation initiatives identified during the jurisdictional scan, we iteratively developed six broad categories of mental health initiatives and conducted additional targeted searches to identify evidence about these types of initiatives. These categories included:

- cross-cutting mental health system-transformation initiatives
- virtual care and online delivery support systems – education, self-led resources and skill building, and information provision
- virtual care and online delivery support systems – connecting users directly to mental health services
- virtual care and online delivery support systems – comprehensive stepped-care delivery approach
- comprehensive stepped-care delivery approach
- community strengthening initiatives.

We organized our narrative summaries around these categories. Within this embedded typology of initiatives, we have highlighted their relevant features according to the original framework (i.e., level of transformation initiatives, of health-system arrangements being transformed, types of sectors involved, and types of broader human services involved in the transformation). The iteratively developed categories helped streamline the narrative description of the results, since the types of initiatives identified addressed multiple aspects of the framework in different combinations (see tables 2b, 2c and appendix 3).

Key findings from highly relevant evidence sources

Key findings from the highly relevant evidence documents are summarized below.

Type and scale of mental-wellness challenges

In terms of highly relevant documents, we identified one guideline, one systematic review and 22 single studies addressing type and scale of mental-wellness challenges affecting Canadians. These evidence documents addressed both the mental-wellness challenges affecting Canadians prior to or irrespective of the COVID-19 pandemic, as well as challenges during the COVID-19 pandemic.

Type and scale of mental-wellness challenges: Prior to or irrespective of the COVID-19 pandemic

Mental health challenges have been identified as a key concern long before the COVID-19 pandemic. Data from the 2012 *Canadian Community Health Survey: Mental Health and Well-being* has provided the basis for many pre-pandemic studies on mental health in Canada. A [pre-pandemic study](#) based on 2012 data of Canadians aged 15 years and older found that the prevalence of any mental disorder was 9.59%, and [bipolar disorder I and II](#) had an estimated prevalence of 0.87% and 0.57%, respectively. The presence of mental health issues can present considerable challenges. Another [study using the same data set](#) found that individuals with Generalized Anxiety Disorder (GAD) generally reported fair/poor perceived health, moderate to severe psychological distress, and moderate to severe disability as often or slightly more often than those with major depressive episodes. A [systematic review](#) focusing on suicides among Canadian men found significant variation in rates of suicide related to HIV-positive status, identification as a sexual minority, prior mental illness, conflicts with parents/caregivers, and being single or widowed predicting higher rates. Higher rates found in Indigenous males were often linked to low-income/unemployment, as well as loss of culture, alcoholism, and divorce. Higher rates associated with occupational trauma have also been identified in military personnel, veterans and first responders.

In children and youth, mental well-being is significantly tied to the contexts in which they live, learn, and socialize. A [pre-pandemic study on Canadian youth](#) (Grades 7-12) noted that being in a higher

grade, being bullied or bullying others, behavioural issues, living in an urban area, being female, and recent (e-)cigarette or cannabis use was associated with lower psychological and social well-being (PSWB), while prosocial behaviours were associated with increased PSWB. In British Columbia, a study [based on data collected before the pandemic](#) found that children and youth from both first- and second-generation immigrant backgrounds had lower prevalence of conduct disorder, ADHD, and mood/anxiety disorders compared to non-immigrant children and youth.

Type and scale of mental-wellness challenges: During the COVID-19 pandemic

The COVID-19 pandemic increased several known stressors associated with mental health challenges, such as lack of socialization, reduced sense of control, financial- and employment-related stress, and health-related concerns. Some research suggests that mental health challenges brought on by COVID-19 may have fluctuated over the course of the pandemic. [A survey of the general population in Canada](#) found that 30% of participants felt highly anxious, depressed, and disinterested in everyday activities in April of 2020, but this decreased to about 20% by July 2020. Statistics Canada conducted a series of surveys on COVID-19 and mental health-wellness challenges faced by Canadians during the period of [September to December 2020](#) and [February to May 2021](#), and found that a higher proportion of Canadian adults screened positive for major depressive disorder and generalized anxiety disorder in the spring of 2021 compared with fall 2020 (19% vs 15% and 15% vs 13%, respectively).

In children and youth, changes to day-to-day socializing and learning activities brought about by COVID-19 appears to have had a marked effect on mental well-being. A [recent single study](#) examining the impact of COVID-19 public-health measures on mental health in children and adolescents with and without pre-existing psychiatric diagnoses found that most children/adolescents experienced more mental health challenges, including depression, anxiety, irritability, attention, and hyperactivity during the pandemic, and that these challenges could be related to the loss of daily routines. Another [recent single study](#) examining the longitudinal evolution of mental health-wellness challenges prior to and during the COVID-19 pandemic among youth with pre-existing mental health needs found that students experienced more mental health repercussions than non-students.

Some studies suggest that the pandemic may affect the mental health of certain groups differently. A [population-based cohort study in Quebec](#) compared mental health symptoms in young adults before and during the pandemic, and reported no significant changes in depression and anxiety overall. However, those with pre-existing severe depressive symptoms in 2018 improved over time, while young adults with low levels of pre-existing depression and anxiety experienced worse mental health during the pandemic. Similarly, Statistics Canada surveys conducted from [September to December 2020](#) and [February to May 2021](#) found that 94% of Canadians who screened positive for at least one mental disorder reported symptoms worsening during the pandemic. Living alone was associated with worse mental health during the pandemic, while low socio-economic status and social support did not significantly affect symptoms. In another study, [COVID-19-related risk factors](#) found to increase the likelihood of Canadians experiencing anxiety symptoms included being or being close to someone with a job that increases the risk of contracting COVID-19, being elderly and/or having a condition that increases the risk of serious illness from COVID-19, and exposure to multiple COVID-19-related risks. Diminished perceptions of control were associated with both short-term and long-term anxiety.

The Mental Health Commission of Canada and the Canadian Centre on Substance Use and Addiction conducted a series of online surveys to document and track the ongoing impact of COVID-19 on mental health wellness across several populations, including priority and vulnerable populations. The surveys found that a higher percentage of youth [reported](#) moderate to severe anxiety symptoms and were less likely to manage the stresses of the pandemic, while older adults (65 years and older) [reported](#) better mental health and stronger coping skills to handle the stresses of the pandemic. Those who were low-income, unemployed, or laid-off [reported](#) higher rates of anxiety, depression, and suicidal ideation, and experienced more barriers in accessing mental health services such as due to financial constraints and long waitlists. [Another study](#) suggests that women may be disproportionately affected by precarious employment during the pandemic, leading to increased risks of generalized anxiety disorder. Further, individuals who were [more likely to report worse mental health](#) included people who are or had family members at risk of complications due to comorbid conditions, those who are isolated, or changes to financial status as a result of the pandemic.

Finally, parents of school-aged children may face additional pressures because of the pandemic that could lead to worse mental health. A [study](#) conducted in May 2020 investigating the impact of social isolation, school or childcare closures, and employment instability due to COVID-19 on the mental health of children and families found that 44.3% of parents with children <18 years living at home reported worse mental health. The role of technology to connect with others, exercise, quality time with family, and supportive employers were found to be key sources of supports. The impacts of COVID-19 on families may be particularly difficult for women, who [reported](#) more mental health concerns, especially among those living in households with young kids (under 13 years).

Mental health system-transformation initiatives

We identified 12 highly relevant systematic reviews and one rapid review that described the evidence on one or more components of mental health system transformations.

Overall, we found no highly relevant evidence documents that focused on **cross-cutting mental health system-transformation initiatives**, initiatives focused on **virtual care and online delivery support systems – comprehensive stepped-care delivery approach**, or **community-strengthening initiatives**. The majority of the identified documents focused on the specific components associated with delivery arrangements for **virtual care and online delivery support systems**. One evidence document described the research evidence on transformation initiatives in Canada.

For **virtual care and online delivery support systems – education, self-led resources and skill building, and information provision**, a [medium-quality review](#) reported positive changes among people with depression when they used online lifestyle interventions (e.g., interventions targeting nutrition, physical activity, sleep, addictions). Most of the interventions used techniques involving self-monitoring, information provision, social support, and goal-setting.

For **virtual care and online delivery support systems – connecting users directly to mental health services**, the 10 highly relevant reviews focused on primary care, and home and community care. Some reviews also described considerations for equity-deserving populations such as racialized people, pregnant people, the LGBTQ2S+ community, and veterans. Most of the identified interventions were internet-based peer support, online group sessions, online applications, mobile applications, videoconferencing, telephone-based cognitive behavioural therapy, and

videoconferencing with clinicians. The reviews generally reported improvements in overall mental health and depressive symptoms. For example, a [low-quality review](#) indicated that web-based therapy may be best positioned for adults with low-risk diagnoses. Some reviews identified barriers such as clinician concerns over privacy and logistical challenges with virtual care. Further details of each identified systematic review can be found in Table 2b.

For **comprehensive stepped-care delivery approaches**, a [high-quality review](#) compared the efficacy and cost-effectiveness of stepped-care treatment and prevention with care-as-usual (CAU) or waiting-list control for depressive and/or anxiety disorders. Results showed that stepped-care treatment was significantly better than CAU in reducing anxiety symptoms.

Evidence from evaluations of mental health system-transformation initiatives that are specifically underway across Canada is limited. We identified only one evidence document that examined children and early-years transformation initiatives at the provincial and territorial level in Canada. The Mental Health Commission of Canada recently published a [rapid scoping review](#) that described the current state of policy and practice around performance measurement for that age group. The review found that there is a large knowledge base around mental health-related behaviours in the infancy and early childhood period, and there are several data-related advances and comprehensive initiatives in child health and well-being in Canada. These initiatives have provided capacities, potentials, and opportunities for the progression of performance measurement in child and youth mental health and well-being; however, these efforts are fragmented and there are very few instances of collaboration across Canada. The review recommended a collaborative pan-Canadian performance measurement framework for child and youth mental health and well-being, with new data collection, through either national surveys and/or a longitudinal cohort survey. The authors emphasized the need for a performance measurement framework that includes perspectives of Indigenous, vulnerable, and racialized populations.

We also found one [recent guideline](#) from the Canadian Association of Colleges and University Student Services (CACUSS) that drew insights from surveys, reports, and a task force to identify challenges and provide recommendations for campus mental health during the COVID-19 pandemic. The survey results showed that depression and relationship concerns declined slightly during the early phase of the pandemic, however anxiety, both general and in relation to COVID-19, escalated significantly. Additionally, there was a reported increase in concerns surrounding discrimination.

Broader system-transformation initiatives

We did not identify any evidence specifically related to broader system-transformation initiatives.

Key findings from the jurisdictional scan

Key findings from the jurisdictional scan are summarized below according to the categories of initiatives we developed during the analysis of results.

Mental health systems-transformation initiatives

Across Canada, the federal government and many provincial/territorial jurisdictions have developed comprehensive and cross-cutting mental health plans, comprising of many mental health systems-transformation initiatives and often integrating service provision across multiple sectors to target the

needs of specific segments of the population. While some jurisdictions have already begun implementing the initiatives that include cross-cutting efforts to transform the mental health system, others are in the process of deliberating how best to approach a systems transformation.

Cross-cutting mental health system-transformation initiatives cover governance, financial and delivery arrangements, and often cross-cut sectors and incorporated broader human services. Examples of governance initiatives include proposals to ensure accountability of service provision such as by adopting [Quality Mental Health Care Framework](#) at the national level and by engaging stakeholder groups in the development, implementation and monitoring of mental health systems-transformation initiatives and empowering communities to build capacity to provide mental health services and supports. Financial initiatives include recommendations to allocate a fixed annual amount of federal funding earmarked federal to improve access to mental health services and, in Manitoba, the provincial [Roadmap](#) for mental health and community wellness aims to incorporate innovative funding models, such as social-impact bonds, to support investment in prevention initiatives. For delivery arrangements, many initiatives include efforts to improve service integration, virtual care and online delivery supports, and efforts to better train, retain and support mental health service providers. Many of these cross-cutting mental health plans also include efforts to reduce stigma and raise mental health service literacy, so people living in Canada know where to turn and who to talk to when they need help.

Indicators to monitor and evaluate mental health outcomes and the success of mental health system-transformation initiatives play an important role in ensuring that these initiatives are achieving their intended goals. Such efforts have been used to better understand the impact of cross-cutting initiatives and a range of targeted initiatives.

The Public Health Agency of Canada (PHAC) has in recent years advanced the measure of mental health status in Canada through the [Positive Mental Health Surveillance Indicator Framework](#), which provides data on self-rated mental health, happiness, life satisfaction, psychological well-being and social well-being in youth (12-17) and adults (18 years and older) in Canada. Across jurisdictions, the ways in which the success of initiatives is measured often differ depending on jurisdictional context. Key indicators across jurisdictions such as Ontario and Quebec include the frequency of emergency-department visits for help with mental health and/or addictions issues, hospitalizations for harm caused by substance use, rates of self-harm, wait times for community mental health counselling services, awareness and/or successful navigation of mental health and addictions services, and early identification for early intervention. In contrast, key indicators in the Maritime provinces, which are often specific to piloting and implementation efforts for Stepped Care 2.0 initiatives, include increases in usage of online platforms, increases in patient and providers' knowledge and improved recruitment and retention of skilled mental health staff.

With respect to **virtual care and online delivery supports** (including education, self-led resources, and skill building; connecting users directly to mental health services; and comprehensive stepped-care delivery approach), we found that across Canada, mental health systems have undergone a transition to virtual care and online delivery supports to improve access to mental health information, resources and services. These supports also provide a way to allow users to manage a continuum of mental health services while allowing providers to coordinate care provision. Virtual care-delivery models often incorporate primary- and specialty-care sectors and are particularly useful for providing services for those who require lower intensity levels of treatment, and the transition to virtual care by provinces and territories has been accelerated by the COVID-19 pandemic. Across jurisdictions, virtual care is seen as having the potential to decrease wait times and improve

convenience and access, and facilitate early intervention to improve preventive approaches to mental health care. As jurisdictions work to implement and scale-up virtual-care efforts, technical challenges, such as accessibility, internet access and the need to ensure that platforms are secure to maintain patient privacy have been acknowledged.

In our review of mental health systems initiatives in Canada, virtual care and online delivery support systems generally served three purposes. First, they can provide an access point for mental health education, self-led resources, skill-building supports, and other types of mental health information provision. Second, they can connect clients directly to virtual forms of mental health care. Finally, they can act as a portal to coordinate mental health care across a continuum of services such as through stepped-care approaches. The stepped-care model ([e.g. Newfoundland and Labrador's Stepped Care 2.0](#)) aims to connect clients to the right services at the right time, from self-led supports and peer supports to more intensive interventions provided by mental health specialists. The level of treatment provided can be “stepped up” or “stepped down” based on the user’s preferences and needs. Many provinces have implemented, piloted, or are moving towards stepped care in tandem with virtual care.

Some **comprehensive stepped-care delivery approaches** have been piloted or implemented but are not fully facilitated through an online portal, even if they may have some services and information supported online. For example, Newfoundland and Labrador’s [Stepped Care 2.0](#) program provides online education and skill-building resources and many of the services provided through the program can be delivered virtually. However, the services are themselves not fully coordinated online, and recommendations to improve the province’s implementation of the program include developing a platform to house all e-mental health tools, possibly by expanding the [Bridge the gApp](#) portal to interface with provincial health records and provide separate dashboard views for clients, providers and administrators. Similarly, the [Quebec Program for Mental Disorders \(PQPTM\)](#) follows a stepped approach in providing one or more of a range of mental health services of varying intensities based on the needs of the individual, and provides some online mental health help and support resources. However, it is coordinated through primary-care organizations such as the Local Community Services Centres (CLSC). Overall, there appears to be a trend that jurisdictions are moving towards the adoption of a stepped-care model for mental health services that is managed by both users and providers through an online portal.

With respect to **community-strengthening initiatives**, they aim to build local capacity to support mental health and well-being, often through creating community networks and providing training. These initiatives are community-focused, generally incorporate both primary-care and public-health sectors, and often train or otherwise engage community-member volunteers to provide information about mental health and available services. For example, the [Rural Mental Health Project](#) in Alberta aims to support 150 rural Albertan communities through training, network development, and assisting with the development of community health roadmaps, health education campaigns, and action plans. In Newfoundland and Labrador, the [Our Path of Resilience Action Plan](#) aims to strengthen community-led mental health initiatives such as peer-led services and Indigenous-led community programs.

Across all types of mental health system-transformation initiatives, common types of broader human services included housing services, other community programs, and employment and income supports. Common priority populations identified across provinces and territories included Indigenous peoples, children and youth, people experiencing racism, transphobia or homophobia, newcomers to Canada, people with disabilities, and people experiencing poverty or homelessness.

Mental health systems-transformation initiatives across several provinces aim to recognize and remove barriers in accessing mental health services for these groups.

Broader system-transformation initiatives

Across jurisdictions in Canada, we found two common types of broader system-transformation initiatives into which mental-wellness initiatives could fit: primary-healthcare transformations and digital-health transformations. At the national level, the Government of Canada has [supported provinces and territories](#) to transition towards a [teams approach to primary health-service provision and coordination](#). In many jurisdictions, this transition includes the incorporation of mental health service providers into primary-care teams. Several provinces also have made concentrated efforts to advance virtual care across the health sector, within which the provision of mental health services provision is often emphasized. In Ontario, the [Digital First for Health](#) strategy has been accelerated in response to COVID-19 and aims to provide a range of digital tools to increase the use of virtual care, and remove compensation-related barriers to virtual care for providers while integrating virtual care with provincial and local health agencies. Prince Edward Island's [Advancing Virtual Care in PEI plan](#) focuses on reducing systemic barriers to accessing healthcare for individuals with disabilities and mobility challenges by increasing the provision of virtual healthcare, including for mental health services.

In addition to these two common types of broader system-transformation initiatives, many system-transformation initiatives responding to COVID-19 incorporated mental health initiatives. At the national level, as part of the [Safe Restart Agreement](#), the Government of Canada committed [\\$50 million to bolster distress centres](#). In New Brunswick, the [Stabilizing Health Care: An Urgent Call to Action plan](#) aims to address challenges exacerbated by COVID-19 such as long wait times, hospital closures and staff shortages, by emphasizing team-based care and the integration of public health, primary care and addiction and mental health services.

Table 1: Overview of type and number of documents that were identified about mental wellness challenges and mental health system-transformation initiatives

Type of document	Total	Mental wellness challenges	Mental health system-transformation initiatives
Guidelines	1	1	1
Full systematic reviews	31	1	30
Rapid reviews	1	0	1
Non-systematic reviews	1	1	0
Protocols for reviews that are underway	0	0	0
Titles/questions for systematic reviews	0	0	0
Single studies	29	29	0

Table 2a: Key findings from relevant evidence documents about the type and scale of mental-wellness challenges facing Canadians

Organizing framework domain(s) addressed		Evidence	Equity considerations (organized by PROGRESS PLUS categories)
Type and scale of challenge	Prior to or irrespective of the impact of the COVID-19 pandemic	<ul style="list-style-type: none"> • Data from 2012 suggest that the prevalence of any mental disorder is around 10% in Canadians 15 years of age and older • A study using the same data set shows that the burden of mental illness, such as perceived health, reported psychological distress, and disability, is as high or higher among individuals with Generalized Anxiety Disorder compared to those with major depressive episodes • In children and youth, mental well-being is significantly tied to the contexts in which they live, learn, and socialize <ul style="list-style-type: none"> ◦ Canadian youth (Grades 7-12) in a higher grade, being bullied or bullying others, with behavioural issues, living in an urban area, being female, and recent (e-)cigarette or cannabis use have lower psychological and social well-being 	<ul style="list-style-type: none"> • In Canadian men, HIV-positive status and identification as a sexual minority are among the characteristics associated with higher rates of suicide • Compared to non-immigrant children and youth, first- and second-generation immigrant children and youth have lower prevalence of conduct disorder,

			ADHD, and mood/anxiety disorders
	During the COVID-19 pandemic	<ul style="list-style-type: none"> • Compared to data from 2018, fewer Canadians reported very good or excellent mental health during COVID-19 • The COVID-19 pandemic increased several known stressors associated with mental health challenges, such as lack of socialization, reduced sense of control, financial- and employment-related stress, and health-related concerns, which have led to worse mental health outcomes for some populations <ul style="list-style-type: none"> ○ For example, 94% of Canadians who screened positive for at least one mental disorder reported that their symptoms worsened during the pandemic ○ The likelihood of Canadians experiencing anxiety symptoms during the pandemic included being or being close to someone with a job that increases the risk of contracting COVID-19, being elderly and/or having a condition that increases the risk of serious illness from COVID-19, and exposure to multiple COVID-19-related risks ○ Overall, Canadian youth were more likely to report moderate to severe anxiety symptoms, while older adults reported better mental health and stronger coping skills to manage the pandemic ○ In May 2020, 44.3% of parents of school-aged children reported worse mental health ○ Changes to employment or financial status also appear to predict mental health challenges during the pandemic, given that those who were low income or unemployed/laid-off reported higher rates of anxiety, depression, and suicidal ideation • Some research suggests that mental health challenges faced by the general population fluctuated over the course of the pandemic <ul style="list-style-type: none"> ○ A higher percentage (30%) of Canadians reported feeling highly anxious, depressed, and disinterested in everyday activities from September to December 2020 compared to in February to May 2021 (20%), but a higher proportion of adults screened positive for major depressive disorder in the spring of 2021 compared with fall 2020 	<ul style="list-style-type: none"> • The impacts of COVID-19 on families may be particularly difficult for women, who reported more mental health concerns, especially among those living in households with young kids (under 13 years)

Table 2b: Key findings from highly relevant evidence documents to support mental health system-transformation initiatives

Type/name of mental health system-transformation initiatives underway across Canada	Organizing framework domain(s) addressed (e.g., level, system arrangements, sectors, broader human services)	Findings from highly relevant evidence documents	Equity considerations
Cross-cutting mental health system-transformation initiatives	No highly relevant evidence documents identified		
Virtual care and online delivery support systems – Education, self-led resources and skill building, and information provision	<ul style="list-style-type: none"> • Mental health system-transformation initiatives underway across Canada <ul style="list-style-type: none"> ○ Types of health-system arrangements being transformed <ul style="list-style-type: none"> ▪ Delivery arrangements 	<ul style="list-style-type: none"> • A medium-quality review reported positive changes among people with depression when they used online lifestyle interventions (e.g., targeting nutrition, physical activity, sleep, addictions), with most techniques involving self-monitoring, information provision, social support, and goal-setting 	<ul style="list-style-type: none"> • None identified
Virtual care and online delivery support systems – Connecting users directly to mental health services	<ul style="list-style-type: none"> • Mental health system-transformation initiatives underway across Canada <ul style="list-style-type: none"> ○ Types of health-system arrangements being transformed <ul style="list-style-type: none"> ▪ Delivery arrangements ○ Types of sectors involved <ul style="list-style-type: none"> ▪ Primary care ▪ Home and community care 	<ul style="list-style-type: none"> • A medium-quality review focused on e-mental health service utilization in Australia found that most services were used by women, people who are more educated, and socio-economically advantaged • A medium-quality review reported the most common telehealth interventions with mental health improvements during COVID-19 included telephone contacts, guided online group sessions, online applications, and videoconferencing • A medium-quality review found some benefits for parental self-efficacy and satisfaction, discharge, and family satisfaction for parents experiencing post-traumatic stress • A medium-quality review examined the impact of eHealth interventions (e.g., videoconferencing, web-based, application-based) and found significant improvement in overall mental health among parents who have children between one and five years of age 	<ul style="list-style-type: none"> • Gender/sex • Race/ethnicity/culture /language • Occupation

		<ul style="list-style-type: none"> • A medium-quality review examined the effectiveness of eHealth interventions for people with substance use, mental illness, and sexual risk among men who have sex with men, and found these interventions to be a suitable option for this group • A medium-quality review found reductions in depressive symptoms among African-American adults after the use of telephone-based CBT and internet-based peer support intervention • A medium-quality review examined the barriers and facilitators of videoconferencing therapies for veterans, such as clinician concerns, logistical challenges, and need for dedicated staff • A medium-quality review found that telehealth interventions improved depressive symptoms among older adults • A low-quality review identified barriers and facilitators to web-based psychological interventions for adults, and indicated web-based therapies are best positioned for adults with low-risk diagnoses, but requires clear protocols for providers • A low-quality review reported that pregnant people from equity-deserving populations benefited from the use of mobile health (mHealth) to facilitate access to healthcare services and improve their psychosocial health 	
Virtual care and online delivery support systems – Comprehensive stepped-care delivery approach	No highly relevant evidence documents identified		
Comprehensive stepped-care delivery approach	<ul style="list-style-type: none"> • Mental health system-transformation initiatives underway across Canada 	<ul style="list-style-type: none"> • A high-quality review compared the efficacy and cost-effectiveness of stepped-care treatment and prevention with care-as-usual (CAU) or waiting-list control for depressive and/or anxiety disorders 	<ul style="list-style-type: none"> • None identified

	<ul style="list-style-type: none"> ○ Types of health-system arrangements being transformed <ul style="list-style-type: none"> ▪ Delivery arrangements 	<ul style="list-style-type: none"> ○ Results showed that stepped-care treatment was significantly better than CAU in reducing anxiety symptoms, with a significantly higher response rate of anxiety disorders in stepped-care treatment compared to CAU 	
Community-strengthening initiatives	No highly relevant evidence documents identified		

Table 2c: Key findings from jurisdictional experiences to support mental health system-transformation initiatives

Type/name of mental health system-transformation initiatives underway across Canada	Organizing framework domain(s) addressed (e.g., level, system arrangements, sectors, broader human services)	Experiences from jurisdictional scan	Equity considerations
<i>Cross-cutting mental health system-transformation initiatives</i>			
<ul style="list-style-type: none"> • Psychotherapy Policy Implementation Network (PPIN) recommendations 	<ul style="list-style-type: none"> • National • Governance, financial and delivery arrangements • Primary care; home and community care; specialty care; public health; employment and income supports; other community programs 	<ul style="list-style-type: none"> • The Psychotherapy Policy Implementation Network (PPIN) was created through an agreement between Health Canada and the Mental Health Commission of Canada (MHCC) to develop recommendations to inform a policy strategy for increasing access to psychotherapy in Canada <ul style="list-style-type: none"> ○ Key recommendations include allocating a fixed annual amount of federal funding to the provinces and territories to expand coverage of psychotherapy and adopting the Quality Mental Health Care Framework at the national level 	<ul style="list-style-type: none"> • None identified
<ul style="list-style-type: none"> • Canadian Mental Health Association's recommendations for strengthening mental health and addictions services in Canada 	<ul style="list-style-type: none"> • National • Governance, financial and delivery arrangements • Primary care; home and community care; specialty care • Housing services; other community programs 	<ul style="list-style-type: none"> • The Canadian Mental Health Association provided a written submission for pre-budget consultations with recommendations in advance of the 2022 federal budget <ul style="list-style-type: none"> ○ The recommendations call for direct investments in community mental health services and programs, including Indigenous-led initiatives and supportive housing 	<ul style="list-style-type: none"> • The Canadian Mental Health Association's recommendations include a focus on Indigenous-led mental health in order to advance reconciliation and help Indigenous communities recover

			<ul style="list-style-type: none"> Homeless and precariously housed groups are also emphasized as a priority for improving access to mental health services as well as housing services
<ul style="list-style-type: none"> Alberta Mental Health and Addictions Advisory Council's recommendations on recovery-oriented care 	<ul style="list-style-type: none"> Provincial/territorial Governance, financial and delivery arrangements Primary care; home and community care; specialty care Children's and early-years services; housing services; other community programs 	<ul style="list-style-type: none"> The Alberta Mental Health and Addictions Advisory Council's recommendations to advance recovery-oriented systems of mental health care include engaging a broad range of partners across a number of broader human services sectors and communities while integrating services and information technology 	<ul style="list-style-type: none"> The Alberta Mental Health and Addictions Advisory Council's recommendations aim to engage a variety of perspectives including Indigenous Ways of Knowing in developing action plans to improve mental health care
<ul style="list-style-type: none"> A Pathway to Mental Health and Community Wellness: A Roadmap for Manitoba 	<ul style="list-style-type: none"> Provincial/territorial Governance, financial and delivery arrangements Primary care; home and community care; specialty care Housing services; other community programs 	<ul style="list-style-type: none"> The Manitoba government published A Pathway to Mental Health and Community Wellness: A Roadmap for Manitoba, consisting of five strategic focus areas: <ul style="list-style-type: none"> equitable access and coordination mental well-being and chronic disease prevention quality and innovation governance and accountability Indigenous partnership and wellness. 	<ul style="list-style-type: none"> In Manitoba, the Roadmap puts a strategic emphasis on Indigenous partnership and wellness
<ul style="list-style-type: none"> Roadmap to Wellness – Ontario 	<ul style="list-style-type: none"> Provincial/territorial Governance, financial, and delivery arrangements Specialty care 	<ul style="list-style-type: none"> Ontario's Roadmap to Wellness provides a guide to address challenges facing mental health and addictions services and includes four pillars: 1) improving quality; 2) expanding existing services; 3) implementing innovative solutions; and 4) improving access Ontario Health Teams serve as regional access points for mental health services, and key initiatives of the plan include linking providers across the community, primary-care and acute-care settings, building a structured psychotherapy program, supporting Ontarians with autism spectrum disorder and mental health issues, expanding addictions services, creating 	<ul style="list-style-type: none"> The plan focuses on addressing the needs of diverse groups, including children and youth, Indigenous people, Francophones, first responders, students, individuals who are justice-involved and people experiencing homelessness

		youth wellness hubs and establishing a single phone number and website with an online chat function	
<ul style="list-style-type: none"> • Le Plan d'action interministériel en santé mentale 2022-2026 - S'unir pour un mieux-être collectif - Québec 	<ul style="list-style-type: none"> • Provincial/territorial • Governance, financial, and delivery arrangements • Specialty care • Housing services; other community programs 	<ul style="list-style-type: none"> • The plan consists of seven core actions: 1) promotion of mental health and prevention of mental disorders; 2) services to prevent and intervene in crisis situations; 3) partnership with community organizations; 4) actions aimed at young people, their families, loved ones and those around them; 5) improving access to mental health care services (this includes integrating online services); 6) prevention and development of alternatives to hospitalizations in psychiatry; 7) consultation and improvement of practices • The plan aims to integrate broader human services such as social work, education, justice and housing 	<ul style="list-style-type: none"> • The plan aims to provide equal access to diverse ethnocultural and linguistic groups, immigrants, and other underserved groups
<i>Virtual care and online delivery support systems – Education, self-led resources and skill building, and information provision</i>			
<ul style="list-style-type: none"> • BounceBack 	<ul style="list-style-type: none"> • Provincial/territorial • Delivery arrangements • Specialty care 	<ul style="list-style-type: none"> • The province offers a free virtual skill-building program known as BounceBack to help people 15 years of age and older experiencing mild to moderate depression or anxiety 	
<ul style="list-style-type: none"> • Bridge the gApp 	<ul style="list-style-type: none"> • Provincial/territorial • Governance and delivery arrangements • Specialty care 	<ul style="list-style-type: none"> • Bridge the gApp provides immediate access to content that offers advice, inspiration and assurances in finding supports • In 2020, Bridge the gApp was expanded to New Brunswick and Prince Edward Island • During the COVID-19 pandemic, the use of this platform increased, with the number of new users who connected online increasing by 233% in 2020 	
<ul style="list-style-type: none"> • Stepped Care 2.0 – Newfoundland and Labrador 	<ul style="list-style-type: none"> • Provincial/territorial • Governance and delivery arrangements • Primary care; specialty care 	<ul style="list-style-type: none"> • Newfoundland and Labrador's Stepped Care 2.0 provides education and skill-building resources 	
<i>Virtual care and online delivery support systems – Connecting users directly to mental health services</i>			
<ul style="list-style-type: none"> • Transition to Virtual Care - Ontario 	<ul style="list-style-type: none"> • Provincial/territorial • Delivery arrangements 	<ul style="list-style-type: none"> • An evaluation of the transition to virtual care for child and youth mental health care in Ontario found that implementation activities undertaken by mental health 	<ul style="list-style-type: none"> • A recommendation of the evaluation is the need to ensure the accessibility of

	<ul style="list-style-type: none"> • Specialty care; primary care 	<p>service agencies include conducting a needs assessment, selecting virtual platform(s), revising or developing policies and procedures, revising workflows, providing staff training, and developing strategies to support evaluation and continuous improvements</p> <ul style="list-style-type: none"> • Virtual care was largely seen as positive by clients, who emphasized convenience, comfort, and reduced travel time and need for childcare • Facilitators identified included ensuring staff engagement, ample resources, access to internet and a collaborative team approach • Challenges included limited access to internet and resources, technical challenges, limited staff capacity, privacy concerns and changes to workflow, developing therapeutic rapport, conducting sessions with younger children, ensuring fidelity to evidence-based practice, and dealing with fatigue • The evaluation made several recommendations to support the integration of virtual care, including ensuring accessibility of virtual care, considering how best to engage diverse populations in virtual care, enhancing staff training, promoting staff wellness and preventing fatigue from delivering virtual care, and providing system-level guidance and oversight to ensure high-quality virtual care 	virtual care and considering how best to engage a greater number of diverse children, youth and families in virtual care
<ul style="list-style-type: none"> • Inter-Departmental Addiction and Mental Health Action Plan – New Brunswick 	<ul style="list-style-type: none"> • Provincial/territorial • Delivery arrangements • Primary care; specialty care • Housing services 	<ul style="list-style-type: none"> • To improve and modernize services, the plan emphasizes a transition to e-Health solutions such as self-serve apps and tele-health, which are anticipated to enhance service offerings and increase accessibility to care for those facing barriers to access 	
<ul style="list-style-type: none"> • Stepped Care 2.0 – Newfoundland and Labrador 	<ul style="list-style-type: none"> • Provincial/territorial • Governance and delivery arrangements • Primary care; specialty care 	<ul style="list-style-type: none"> • Individual services provided as part of Newfoundland and Labrador's Stepped Care 2.0 initiative are provided online and over the phone 	

<ul style="list-style-type: none"> • BC COVID-19 Mental Health Network 	<ul style="list-style-type: none"> • Provincial/territorial • Delivery arrangements • Primary care 	<ul style="list-style-type: none"> • Complementing the Wellness Together Canada portal, the Government of BC provides free, phone-based, short-term support through a counsellor through the BC COVID-19 Mental Health Network 	
<i>Virtual care and online delivery support systems – Comprehensive stepped-care delivery approach</i>			
<ul style="list-style-type: none"> • Wellness Together Canada 	<ul style="list-style-type: none"> • National • Delivery arrangements • Primary care; specialty care 	<ul style="list-style-type: none"> • In order to support mental health and well-being in Canada during the COVID-19 crisis, the Ministry of Health launched Wellness Together Canada, a portal connecting Canadians to peer support workers, social workers, psychologists and other professionals for confidential chat sessions or phone calls, allowing users to more easily find credible information to assist with mental health and substance-use issues • The portal also provides access to self-led skill development, education, and peer support services and is based on Stepped Care 2.0 	
<ul style="list-style-type: none"> • Stepping Together for Digital Mental Health and Addictions Services - Nova Scotia 	<ul style="list-style-type: none"> • Provincial/territorial • Delivery arrangements • Primary care; specialty care 	<ul style="list-style-type: none"> • The initiative includes a centralized e-mental health delivery platform that aims to increase the availability and use of e-mental health services, promote their benefits, and focus on people-centred approaches in alignment with the Stepped Care 2.0 model • Lessons learned during implementation include the value of diversifying voices and expertise, embracing continuous quality improvement, allocating resources to support systems thinking, recognizing that progress is tied to team resilience and flexibility, and creating a culture and language of hope 	<ul style="list-style-type: none"> • The platform was launched in both official languages and standards of diversity, inclusion and accessibility were applied • Partnerships with organizations engaged with target populations including children and youth, post-secondary students and Indigenous people, were developed to improve service access for these populations
<i>Comprehensive stepped-care delivery approach</i>			
<ul style="list-style-type: none"> • Quebec Program for Mental Disorders (PQPTM) 	<ul style="list-style-type: none"> • Provincial/territorial • Financial and delivery arrangements 	<ul style="list-style-type: none"> • The Quebec Program for Mental Disorders (PQPTM) provides a framework for services offered to people with common mental health disorders • Services include support meetings, support interventions, couple and family interventions, 	<ul style="list-style-type: none"> • Quebec Program for Mental Disorders (PQPTM)

		<p>psychoeducation, rehabilitation, clinical follow-up and coaching</p> <ul style="list-style-type: none"> • The program follows a three-step procedure, which includes the steps of asking for help, assessing the situation, and treatment and services offered 	
<ul style="list-style-type: none"> • <u>Inter-Departmental Addiction and Mental Health Action Plan</u> – New Brunswick 	<ul style="list-style-type: none"> • Provincial/territorial • Delivery arrangements • Specialty care • Housing services 	<ul style="list-style-type: none"> • The Inter-Departmental Addiction and Mental Health Action Plan follows a stepped-care model and focuses on four pillars including prevention, treatment, harm reduction and community safety • The five overall goals of this plan are improving population health, improving access, early intervention, matching individuals to care, and reducing drug-related impacts 	<ul style="list-style-type: none"> • <u>Inter-Departmental Addiction and Mental Health Action Plan</u> – New Brunswick
<ul style="list-style-type: none"> • <u>Stepped Care 2.0</u> – Newfoundland and Labrador 	<ul style="list-style-type: none"> • Provincial/territorial • Governance and delivery arrangements • Primary care; specialty care 	<ul style="list-style-type: none"> • The <u>Stepped Care 2.0</u> pilot project in Newfoundland and Labrador implemented five e-mental health interventions and e-mental health tools while evaluating stakeholder readiness and satisfaction, and wait times • Recommendations to improve the project included increasing participation of medical professionals, especially primary-care physicians and psychiatrists, in designing and implementing the Stepped Care 2.0 model, public messaging on the new model, and more coordinated professional development • Identified facilitators included political will to transform mental health systems, an all-party committee, dedicated staff to support the project, training and change management at provincial and regional levels, and the strong engagement of people with lived experiences 	
<i>Community-strengthening initiatives</i>			
<ul style="list-style-type: none"> • <u>Rural Mental Health Project</u> – Alberta 	<ul style="list-style-type: none"> • Provincial/territorial • Governance and delivery arrangements • Home and community care 	<ul style="list-style-type: none"> • CMHA's <u>Rural Mental Health Project</u> strengthens community capacity for better mental health in rural and remote communities across Alberta through <u>training, network development, and supporting 150</u> 	

	<ul style="list-style-type: none"> • Other community programs 	rural Alberta communities in developing community mental health roadmaps and Action Plans <ul style="list-style-type: none"> ○ The project is anchored in training local Animators and the development of Action Plans through a community-engagement process and connecting Animators and coalitions across Alberta 	
<ul style="list-style-type: none"> • Government of Prince Edward Island Mental Health and Addiction Strategy for 2016-2026 	<ul style="list-style-type: none"> • Provincial/territorial • Delivery arrangements • Specialty care • Other community programs 	<ul style="list-style-type: none"> • The goals of the plan include improving wait times, supports for families and people of all ages, early recognition and treatment, improvement of broader human services, raising awareness and improving outcomes for specific diverse populations (Indigenous, people in conflict with the law, refugees, etc.) • Key strategic priorities of the plan consist of developing legislation to support prevention activities, evidence-based promotion and prevention activities, continued implementation of the tiered-care approach, investment into publicly funded community groups, facilitating inter-departmental collaboration, and implementing a workforce-development strategy 	<ul style="list-style-type: none"> • The plan aims to improve mental health outcomes for specific diverse populations, including Indigenous people, children and youth, people in conflict with the law, and refugees
<ul style="list-style-type: none"> • Community First Philosophy – PEI 	<ul style="list-style-type: none"> • Provincial/territorial • Delivery arrangements • Specialty care 	<ul style="list-style-type: none"> • The initiative follows a Community First model that nurtures an integrated continuum of services, an interdisciplinary care-delivery model across providers, the use of supporting technologies, and optimally designed spaces • The guiding principles of this plan include the idea that everyone has a role to play in mental health, recovery is a unique and personal process, organizing the system with and around the needs of the population, culturally safe and competent programs, services delivered using the best-available knowledge, effective use of resources, reducing stigma, and using technology to transform where, how and by whom work gets done 	
<ul style="list-style-type: none"> • Our Path of Resilience Action Plan- 	<ul style="list-style-type: none"> • Provincial/territorial 	<ul style="list-style-type: none"> • The Our Path of Resilience Action Plan outlines 12 action items under the categories of: community 	<ul style="list-style-type: none"> • The action plan aims to address barriers to accessing

<p>Newfoundland and Labrador</p>	<ul style="list-style-type: none"> • Governance and delivery arrangements • Specialty care • Housing services; other community programs 	<p>mental health literacy and capacity building; socially-equitable prevention, intervention and follow up services; and monitoring, surveillance and research</p> <ul style="list-style-type: none"> • Under this plan, the government will continue to support mental health initiatives to prevent suicide such as peer-led services, Indigenous-led community programs, e-mental health programs, suicide bereavement support networks, supportive housing and education and training, among others 	<p>mental health and addictions programs and other health services faced by people facing inequities such as poverty, homelessness, systemic racism, ageism, gender-based discrimination, transphobia or homophobia, as well as newcomers to Canada and persons with disabilities</p>
<ul style="list-style-type: none"> • <u>10-year Mental Health and Addictions Action Plan</u> 	<ul style="list-style-type: none"> • Provincial/territorial • Governance and delivery arrangements • Home and community care; primary care; specialty care; public health • Other community programs 	<ul style="list-style-type: none"> • The Action Plan consists of 16 recommendations across these seven categories: 1) enhance access and capacity and support recovery in the community; 2) focus on prevention and early intervention; 3) create person- and family-centred and coordinated services; 4) respond to diversities; 5) partner with First Nations and Métis Peoples; 6) reduce stigma and increase awareness; and 7) transform the system and sustain the change • Examples of <u>initiatives supporting the recommendations</u> include Mental Health Capacity Building (MHCB) projects implemented in schools and designed to build positive mental health in children, youth, families and community members, Police and Crisis Teams, and community recovery teams (CRTs) 	<ul style="list-style-type: none"> • The plan aims to partner with First Nations and Métis Peoples and respond to groups with diverse needs across the province

Demaio P, Bhuiya AR, Al-Khateeb S, Wang A, Khan Z, El-Kadi A, Sharma K, Tchakerian N, Alam S, Bain T, Song X, Lavis JN, Wilson MG, Moat KA. Rapid Evidence Profile #40. What is known about mental-wellness challenges facing Canadians and mental health system-transformation initiatives? Hamilton: McMaster Health Forum, 11 January 2023.

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Appendix 1: Methodological details

We use a standard protocol for preparing rapid evidence profiles (REP) to ensure that our approach to identifying research evidence as well as experiences from Canadian provinces and territories are as systematic and transparent as possible in the time we were given to prepare the profile.

Identifying research evidence

For this REP, we searched [HealthEvidence](#), [Health Systems Evidence](#), [PubMed](#) for:

- 1) guidelines (defined as providing recommendations or other normative statements derived from an explicit process for evidence synthesis)
- 2) full systematic reviews
- 3) rapid reviews
- 4) protocols for reviews or rapid reviews that are underway
- 5) titles/questions for reviews that are being planned
- 6) single studies (when no guidelines, systematic reviews or rapid reviews are identified).

In each database we used the open search function for (“mental health” OR wellbeing OR “well-being” OR wellness) AND Canad*. We also performed hand searching across the Canadian Mental Health Association, Mental Health Commission of Canada, and Statistics Canada websites.

Each source for these documents is assigned to one team member who conducts hand searches (when a source contains a smaller number of documents) or keyword searches to identify potentially relevant documents. A final inclusion assessment is performed both by the person who did the initial screening and the lead author of the rapid evidence profile, with disagreements resolved by consensus or with the input of a third reviewer on the team. The team uses a dedicated virtual channel to discuss and iteratively refine inclusion/exclusion criteria throughout the process, which provides a running list of considerations that all members can consult during the first stages of assessment.

During this process we include published, pre-print and grey literature. We do not exclude documents based on the language of a document. However, we are not able to extract key findings from documents that are written in languages other than Chinese, English, French or Spanish. We provide any documents that do not have content available in these languages in an appendix containing documents excluded at the final stages of reviewing. We excluded documents that did not directly address the research questions and the relevant organizing framework. We identified equity considerations reported in included documents and summarized any relevant findings in Tables 2a, 2b, and 2c, as well as Appendices 2 and 3.

Identifying experiences from other countries and from Canadian provinces and territories

For each REP, we collectively decide on what countries to examine based on the question posed. For other countries we searched relevant government and stakeholder websites. In Canada, we search websites from relevant national and provincial governments, ministries and agencies (e.g., Public Health Agency of Canada).

While we do not exclude countries based on language. Where information is not available in English, Chinese, French or Spanish, we attempt to use site-specific translation functions or Google translate.

Identifying additional research evidence

After analyzing the findings from the jurisdictional scans, we iteratively developed six broad categories of mental health initiatives and conducted additional targeted searches to identify evidence about these types of initiatives. We searched [Health Systems Evidence](#) and [PubMed](#) for:

- 1) guidelines (defined as providing recommendations or other normative statements derived from an explicit process for evidence synthesis)
- 2) full systematic reviews
- 3) rapid reviews
- 4) protocols for reviews or rapid reviews that are underway
- 5) and single studies (when no guidelines, systematic reviews or rapid reviews are identified).

In each database we used the open search function for keywords related to each of the iteratively developed mental health system-transformation initiative categories AND (“mental health” OR well-being OR “well-being” OR wellness).

Each source for these documents is assigned to one team member who conducts hand searches (when a source contains a smaller number of documents) or keyword searches to identify potentially relevant documents. A final inclusion assessment is performed both by the person who did the initial screening and the lead author of the rapid evidence profile, with disagreements resolved by consensus or with the input of a third reviewer on the team. The team uses a dedicated virtual channel to discuss and iteratively refine inclusion/exclusion criteria throughout the process, which provides a running list of considerations that all members can consult during the first stages of assessment.

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Assessing relevance and quality of evidence

We assess the relevance of each included evidence document as being of high, moderate or low relevance to the question. We then use a colour gradient to reflect high (darkest blue) to low (lightest blue) relevance.

Two reviewers independently appraised the quality of the guidelines we identified as being highly relevant using AGREE II. We used three domains in the tool (stakeholder involvement, rigour of development and editorial independence) and classified guidelines as high quality if they were scored as 60% or higher across each of these domains.

Two reviewers independently appraise the methodological quality of systematic reviews and rapid reviews that are deemed to be highly relevant. Disagreements are resolved by consensus with a third reviewer if needed. AMSTAR rates overall methodological quality on a scale of 0 to 11, where 11/11 represents a review of the highest quality. High-quality reviews are those with scores of eight or higher out of a possible 11, medium-quality reviews are those with scores between four and seven, and low-quality reviews are those with scores less than four. 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 health-system arrangements or to economic and social responses to COVID-19. 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.

Preparing the profile

Each included document is hyperlinked to its original source to facilitate easy retrieval. For all included guidelines, systematic reviews, rapid reviews and single studies (when included), we prepare a small number of bullet points that provide a brief summary of the key findings, which are used to summarize key messages in the text. Protocols and titles/questions have their titles hyperlinked given that findings are not yet available. For this profile, we only prepared bulleted summaries of key findings for documents deemed to be of high relevance. For those classified as medium or low relevance, we list the title with a link to the primary source for easy retrieval if needed. We then draft a brief summary that highlights the total number of different types of highly relevant documents identified (organized by document), as well as their key findings, date of last search (or date last updated or published), and methodological quality.

Appendix 2: Key findings from evidence documents that address the question, organized by document type, and sorted by relevance to the question of type and scale of mental-wellness challenges facing Canadians

Type of document	Relevance to question	Key findings	Recency or status	Equity considerations (PROGRESS-Plus)
Guidelines	<ul style="list-style-type: none"> Type of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> During the COVID-19 pandemic Scale of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> Who is affected (e.g., specific populations) 	<ul style="list-style-type: none"> This guideline from the Canadian Association of Colleges and University Student Services (CACUSS) provides data-informed challenges and opportunities for campus mental health during the COVID-19 pandemic, including insights from surveys, reports, and task forces' recommendations The Campus Mental Health Community of Practice from the CACUSS surveyed counselling centres' evolving needs and trends over the past two years from the participation of 60 post-secondary institutions (PSIs), including 100 directors of health and wellness, counselling, and senior student affairs professionals The survey was launched in May 2020 and closed on 10 July 2020 The survey results illustrate how students have embraced or continue to face challenges in adapting to remote mental health services delivery, and challenges faced by PSIs in making their mental health services responsive to online adaptation, and outline specific infrastructural needs During the early phase of COVID-19, depression and relationship concerns declined slightly, although anxiety, both general and related to COVID-19, seems to have escalated significantly, along with an increase in learning issues and discrimination 	Published November 2020	Broad equity terms (e.g., equity); race/ethnicity

		<ul style="list-style-type: none"> • Other issues shared by students include COVID fatigue, financial challenges, and separation of home and school life • Recommendations cover a range of concerns, including clinical (assess pre-existing challenges in the context of COVID-19 disruptions, develop community partnerships for specialized treatment), equitable and inclusive services (engage students from diverse backgrounds to design antiracism programs, personalized outreach to students of vulnerable or racialized populations), accessibility (flexible application of policies, provide flexible and accessible models of mental health care), evidence-based mental health services (ongoing feedback systems, regular collection of diverse range of data), ethical considerations for virtual/remote mental health services (boundaries of practice, record-keeping) <p><u>Source</u></p>		
Full systematic reviews	<ul style="list-style-type: none"> • Type of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> ○ Prior to or irrespective of the impact of the COVID-19 pandemic ○ During the COVID-19 pandemic • Scale of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> ○ Who is affected (e.g., specific populations) ○ How they are affected (e.g., types of conditions) 	<ul style="list-style-type: none"> • The study focused on analyzing Canadian male suicides to inform suicide prevention efforts • The authors stress the need for advancements of suicide intervention programs, especially as they found that 42% of help-seeking Canadian men's mental health was negatively affected by the COVID pandemic • Higher rates of suicidality/suicide were found in sexual minority men, including five to eight times higher rates of suicidal ideation in trans-males than in general male population • Higher rates of suicidality/suicide in Indigenous males were often linked to low-income/unemployment, as well as loss of culture, alcoholism, and divorce 	Published May 2021	Race/ethnicity (e.g., Indigenous, minority health); occupation (e.g., unemployment); education

		<ul style="list-style-type: none"> • The following factors were all predictors of suicide within males, including adolescent males: <ul style="list-style-type: none"> ○ HIV-positive status ○ prior mental illness ○ conflicts with parents/caregivers ○ being single/widowed. • Using mental health services in previous years was seen as predictors of suicidal ideation in older-aged men, and one study suggested community-based programs to combat suicidal ideation • Higher rates of suicide were found in military personnel, veterans, and first responders, associated with occupational trauma and mental health disorders • The authors recommend the consideration of social determinants of health in tailoring suicide prevention programs • De-stigmatization of mental illnesses, employer-provided mental health services, and correctly timing prevention efforts were highlighted as crucial factors in suicide prevention efforts <p><u>Source</u></p>		
Non-systematic reviews	<ul style="list-style-type: none"> • Type of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> ○ Prior to or irrespective of the impact of the COVID-19 pandemic • Scale of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> ○ Who is affected (e.g., specific populations) 	<ul style="list-style-type: none"> • This review investigates the differences in rates of mental illnesses between immigrant, refugee, ethnocultural and racialized (IRER) groups and host populations • IRER populations were identified to be exposed to different risk and protective factors, which vary for different IRER groups • This study found no clear pattern in rates of mental health problems in IRER groups, with different IRER and age groups reporting differing rates of mental health problems, compared with white Canadians 	Published February 2012	Gender; race/ethnicity; education; socio-economic status

		<ul style="list-style-type: none"> • This study identified higher rates of numerous illnesses among refugee youth in Quebec • A limitation to the findings is that much of the research was conducted in three of the 13 provinces and territories. Furthermore, the majority of research focused on East Asian and South Asian groups in major cities • This study recommends further investigation of within-group characteristics such as age, sex, education level, language fluency, length of residence in Canada, and the availability of community support <p>Source</p>		
Protocols for reviews that are already underway	No protocols for reviews that are already underway identified			
Titles and questions for reviews being planned	No titles and questions for reviews being planned identified			
Single studies	<ul style="list-style-type: none"> • Type of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> ○ Prior to or irrespective of the impact of the COVID-19 pandemic ○ During the COVID-19 pandemic • Scale of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> ○ Who is affected (e.g., specific populations) 	<ul style="list-style-type: none"> • This study examined the longitudinal evolution of mental health and substance use from a period of before the COVID-19 pandemic to over one year into the pandemic among youth with pre-existing mental health needs or substance-use challenges • Socio-demographic factors that may have influenced mental health and substance-use status over the course of the pandemic were collected, along with pre-existing mental health diagnoses • The statistical analyses utilized to assess the effect of time on mental health and substance use showed: <ul style="list-style-type: none"> ○ there was no change in internalizing or externalizing disorder scores from prior to the pandemic to any point throughout the first year of the pandemic 	Published 29 May 2022	Age (e.g., children and youth)

		<ul style="list-style-type: none"> ○ substance-use scores during the pandemic declined compared to scores prior to the pandemic ○ students appear to have experienced more mental health repercussions than non-students. <p>Source</p>		
	<ul style="list-style-type: none"> • Type of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> ○ During the COVID-19 pandemic • Scale of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> ○ Who is affected (e.g., specific populations) ○ How they are affected (e.g., types of conditions) 	<ul style="list-style-type: none"> • This study examines the impact of COVID-19 emergency measures on mental health for children and adolescents with and without pre-existing psychiatric diagnoses • This cross-sectional study was completed on children and youth within four cohorts, including both clinical and community samples • Among children and adolescents aged six to 18, mental health change was assessed using an adapted version of the international CRISIS Questionnaire, which measures the impact of the pandemic so that it can be compared across cultures <ul style="list-style-type: none"> ○ This survey measures changes in mental health across six domains, including depression, anxiety, irritability, attention, hyperactivity, and obsessions/compulsions ○ Additionally, data regarding demographics, COVID-19 exposure, compliances with emergency measures and stress from social isolation were collected • Data from the survey indicates that among children and youth, approximately 70% of the respondents surveyed were faring worse in at least one of the domains of mental health, while 20-30% of people were faring better in at least one of the domains • Results of this study indicate that the mental health impacts of the pandemic are greater for school-aged children and could be related 	Published April 2022	Age (e.g., children and youth); education

		<p>to the loss of daily routines for children of all ages</p> <ul style="list-style-type: none"> ○ Risk factors identified in this study include stress from social isolation and COVID-19 exposure, and the loss of in-person social interactions was strongly associated with deterioration in mental health across all domains ○ Mitigation strategies were identified as ensuring continuous access to outpatient mental health services and access to acute mental health care <p>Source</p>		
	<ul style="list-style-type: none"> • Type of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> ○ Prior to or irrespective of the impact of the COVID-19 pandemic • Scale of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> ○ Who is affected (e.g., specific populations) ○ How they are affected (e.g., types of conditions) 	<ul style="list-style-type: none"> • This study examined the diagnostic prevalence of mental health disorders, including conduct, attention-deficit/hyperactivity disorder (ADHD), and mood/anxiety disorders in immigrant, refugee, and non-immigrant children and youth in the province of British Columbia, Canada • The methods included longitudinal data over a period of two decades in British Columbia and the study population was identified from the British Columbia Ministry of Education and Ministry of Health, capturing children and youth aged 0 to 19 years registered in the 10 largest districts that have a vast majority of immigrant population • Mental disorders were identified using adapted criteria developed by the Manitoba Centre for Health Policy, using a combination of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision (ICD-10) • A total of 470,464 children and youth were included in the study, with 65.5% (307,902) of the study population being non-immigrant 	Published 15 February 2022	Race/ethnicity (e.g., immigrant, refugee populations); age (e.g., youth and children)

		<p>children and youth and 34.55% (161,697) being immigrants</p> <ul style="list-style-type: none"> • The results showed that youth and children from immigrant and refugee backgrounds (both first- and second-generation) had lower prevalence of conduct disorder, ADHD, and mood/anxiety disorders • Second-generation youth and children showed higher prevalence of conduct, ADHD, and mood/anxiety disorders than first-generation youth and children • The authors noted that future research should explore whether cultural differences and barriers to accessing health services may be contributing to the differences in prevalence of conduct, ADHD, and mood/anxiety disorders <p>Source</p>		
	<ul style="list-style-type: none"> • Type of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> ○ During the COVID-19 pandemic • Scale of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> ○ Who is affected (e.g., specific populations) ○ How they are affected (e.g., types of conditions) 	<ul style="list-style-type: none"> • This study investigates the differences in the impact of COVID-19-related stressors and resilience factors of anxiety on men and women in Canada <ul style="list-style-type: none"> ○ Pandemic-related stressors such as mandatory quarantine, social distancing, unexpected job loss, fear of COVID-19 infection and mortality, and exposure to COVID-19 misinformation were investigated ○ Gender-specific differences in anxiety disorders have been documented before the pandemic, however, less is known about the extent to which psychological consequences of the COVID-19 pandemic differ between gender identities • The data was drawn from the Canadian Perspective Survey Series – Information Sources Consulted During the Pandemic, 	Published January 2022	Occupation (e.g., unemployment); gender; place of residence (e.g., rural settings); education

		<p>which was conducted from 20 July to 26 July 2020</p> <ul style="list-style-type: none"> ○ This survey was administered to Canadians aged 15 years and older living in the 10 provinces, and gathered data on mental health, with a special focus on the quantity and quality of COVID-19 information they received from multiple sources ○ The three main variables explored include COVID-19 misinformation exposure, precarious employment, and health behaviour change ● This study found a correlation between the frequency of seeing suspected COVID-19 misinformation on the probability of developing moderate to severe anxiety symptoms, especially among men, regardless of demographic, socio-economic, and behavioural-health factors <ul style="list-style-type: none"> ○ No similar correlation was observed among women ● This study found increased risks of generalized anxiety disorder among women who were absent from work due to COVID-19 reasons, including business closure, layoff, and COVID-19 diagnosis <ul style="list-style-type: none"> ○ This finding indicates that women were disproportionately influenced by precarious employment disrupted by the pandemic than men in the sample ● Risk factors of moderate/severe anxiety found in this study include younger age, living in low-rise apartments, exposure to fake news, absence from work, increased intake of alcohol, junk food and screen time, and no past-week contact outside household <p>Source</p>		
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	<ul style="list-style-type: none"> • Type of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> ○ During the COVID-19 pandemic • Scale of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> ○ Who is affected (e.g., specific populations) 	<ul style="list-style-type: none"> • An online survey for the Canadian Centre on Substance Use and Addiction and the Mental Health Commission of Canada was administered to document and compare mental health and substance-use impacts on youth and older adults • The cross-sectional findings were collected over six time periods from October 2020 to July 2021 • Youth, aged 16 to 24 years, were most likely to report mental health and substance-use concerns and less ability to handle pandemic stress <ul style="list-style-type: none"> ○ Almost 45% of 411 youth reported moderate to severe anxiety symptoms • Adults aged 65 and older, reported better mental health, less substance use, and stronger coping skills <ul style="list-style-type: none"> ○ 9% of 628 older adults reported moderate to severe anxiety symptoms • The authors noted that the findings highlight the importance of continued investment in youth mental health supports <p>Source</p>	Published 13 December 2021	Age (e.g., children and youth; older adults)
	<ul style="list-style-type: none"> • Type of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> ○ Prior to or irrespective of the impact of the COVID-19 pandemic ○ During the COVID-19 pandemic • Scale of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> ○ Who is affected (e.g., specific populations) ○ How they are affected (e.g., types of conditions) 	<ul style="list-style-type: none"> • The study focused on analyzing changes in suicide rates and suicide ideation in adults in relation to decreased mental health during the COVID-19 pandemic • The authors analyzed survey data from the 2019 Canadian Community Health Survey (CCHS) for information on pre-pandemic suicide ideation and the 2020 Survey on COVID-19 and Mental Health (SCMH) for post-pandemic statistics • The CCHS included people 12 years and older residing in the provinces and territories, while the SCMH targeted adults aged 18 and 	Published 10 November 2021	Socio-economic status; occupation

		<p>older living in the provinces and the three territorial capitals</p> <ul style="list-style-type: none"> • 2019 CCHS data displayed 23% of the sample population to have children < 18 years of age at home and 17.09% of the sample population to be from rural areas, compared to the 27.58% and 17.70% distribution found in the 2002 SCMH data, respectively • Although no significant difference in reported suicide ideation was found, the study did find those at a higher risk for suicide ideation before the pandemic tended to also be at a high risk during the pandemic – this included those aged 65+ years, those born in Canada, frontline workers, and those with low household incomes or level of education • Having children at home pre-pandemic served as a protective factor against suicide ideation, however, during the pandemic, increased childcare responsibilities due to pandemic restrictions negated this <p>Source</p>		
	<ul style="list-style-type: none"> • Type of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> ○ During the COVID-19 pandemic • Scale of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> ○ Who is affected (e.g., specific populations) ○ How they are affected (e.g., types of conditions) 	<ul style="list-style-type: none"> • Statistics Canada conducted a survey on COVID-19 and mental health of Canadians for the period of February to May 2021 • The survey indicated that one in four (25%) Canadians aged 18 and older self-reported positive for symptoms of depression, anxiety, or post-traumatic stress disorder (PTSD) in the spring of 2021, up from one in five (21%) in the fall of 2020 • A higher proportion of Canadian adults screened positive for major depressive disorder and generalized anxiety disorder in the spring of 2021 compared with fall 2020 	Published 27 September 2021	Not applicable

		<p>(19% versus 15% and 15% versus 13%, respectively)</p> <ul style="list-style-type: none"> Specifically, from fall 2020 to spring 2021, higher proportions of adults aged 25 to 64 screened positive for at least one disorder Among 25-to-44 year-olds, the proportion screening positive for major depressive disorder and generalized anxiety disorder increased from 18% and 15% in fall 2020 to 23% and 20% in spring 2021, respectively It is worth noting that symptoms associated with these disorders may have been present before the beginning of the pandemic, and may have been intensified during the pandemic Among Canadians who screened positive for at least one disorder, including depression, anxiety, or PTSD, 94% reported being negatively affected by the pandemic, including feelings of loneliness or isolation, physical health problems, and challenges in personal relationships <p>Source</p>		
	<ul style="list-style-type: none"> Type of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> Prior to or irrespective of the impact of the COVID-19 pandemic During the COVID-19 pandemic Scale of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> Who is affected (e.g., specific populations) How they are affected (e.g., types of conditions) 	<ul style="list-style-type: none"> This population-based cohort study compared depression and anxiety symptoms in young adults in Quebec, Canada before and during the COVID-19 pandemic, and determined if changes in symptoms were due to stressors relating to the pandemic The study sample was recruited from the Québec Longitudinal Study of Child Development where 1,039 participants were surveyed in 2018 at the age of 20 years on their mental health symptoms, and in July and August 2020, 1,182 participants were recruited from that same sample at the age of 22 years 	Published September 2021	Place of residence (e.g., living alone); social capital (e.g., social isolation)

		<ul style="list-style-type: none"> On average, the study did not find significant changes in depression and anxiety levels across the full spectrum of symptom severity, although there was an increase in prevalence of 1.9% of severe depressive symptoms during the initial months of the pandemic Conversely, those with pre-existing severe depressive symptoms in 2018 improved over time, which may be due to several factors such as a natural improvement of illness over time, an effect of seasonality, or a reduction of social stressors during periods of confinement Young adults with low levels of pre-existing depression and anxiety in 2018 experienced a deterioration in mental health during the pandemic Living alone was associated with worsening of depression and anxiety symptoms while low socio-economic status and social support did not affect symptoms The authors state that future research should explore more long-term changes in mental health throughout the pandemic to better support youth who are struggling with depression and anxiety <p>Source</p>		
	<ul style="list-style-type: none"> Type of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> During the COVID-19 pandemic Scale of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> Who is affected (e.g., specific populations) 	<ul style="list-style-type: none"> An online survey for the Canadian Centre on Substance Use and Addiction and the Mental Health Commission of Canada was administered to track the ongoing impact of COVID-19 on mental health and substance use across several priority populations, including those who are low income or who are unemployed and/or recently lost their jobs 	Published September 2021	Occupation (e.g., unemployment; low-income)

		<ul style="list-style-type: none"> • The cross-sectional findings were collected over five time periods from October 2020 to March 2021 • The findings revealed that people with low income or who are unemployed/laid-off reported higher rates of anxiety, depression, and suicidal ideation • One in four people with low income or who are unemployed/laid-off reported finances as a top pandemic stressor, compared to one in seven in the general population • People with low income or who are unemployed/laid-off have faced more barriers in accessing mental health services, such as financial constraints and long waitlists <p>Source</p>		
	<ul style="list-style-type: none"> • Type of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> ○ During the COVID-19 pandemic • Scale of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> ○ How they are affected (e.g., types of conditions) ○ For how long they are affected (e.g., time-limited vs. long-term) 	<ul style="list-style-type: none"> • This study aimed to describe trends in anxiety and depression among the general population of Canada over the first five months of the COVID-19 pandemic, and identify potential risk factors for deterioration of mental health • Longitudinal web-based interviews were conducted from April to July 2020 in four surveys, each four to six weeks apart • A total of 3,127 participants were included, with 80% of participants responding to two or more surveys and 66% participating in all four surveys • More than 30% of participants felt highly anxious, depressed, and disinterested in everyday activities in the first survey in April 2020, but this number decreased to around 20% at the end of the study period in July 2020 <ul style="list-style-type: none"> ○ Despite rapid decreases in severity of depressive and anxiety symptoms within the study period, the absolute levels in July 	Published 16 July 2021	Place of residence (e.g., living alone); social capital (e.g., social isolation)

		<p>were still two times higher than pre-pandemic levels</p> <ul style="list-style-type: none"> • The impact of the pandemic on mental health was most pronounced in younger adults and those who reported feeling of loneliness • Resilience and fast mental health recovery are promising observations which could be explained by increased communication from the media, health experts and political leadership • The lack of complete recovery of mental health in the general Canadian population could result in even higher levels of depression and anxiety in subsequent waves of the pandemic, highlighting the importance of monitoring long-term effects <p>Source</p>		
	<ul style="list-style-type: none"> • Type of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> ○ During the COVID-19 pandemic • Scale of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> ○ Who is affected (e.g., specific populations) 	<ul style="list-style-type: none"> • An online survey for the Canadian Centre on Substance Use and Addiction and the Mental Health Commission of Canada was administered to track the ongoing impact of COVID-19 on mental health and substance use across several priority populations, including females and households with younger kids • The cross-sectional findings were collected over six time periods from October 2020 to March 2021 • The findings revealed that more females report mental health concerns, and that the pandemic has greater impacts on mental health among those living in households with young kids (under 13 years), especially for females • People living alone are more likely to report moderate-to-severe depression symptoms and suicidal ideation compared to the rest of the 	Published 21 May 2021	Gender; place of residence (e.g., household size)

		population (20% versus 15% and 9% versus 6%, respectively) Source		
	<ul style="list-style-type: none"> • Type of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> ○ During the COVID-19 pandemic • Scale of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> ○ Who is affected (e.g., specific populations) 	<ul style="list-style-type: none"> • Statistics Canada conducted a survey on COVID-19 and mental health of Canadians for the period of September to December 2020 • The survey indicated that one in five (21%) Canadians aged 18 years and older self-reported positive for symptoms of at least one of three mental disorders - major depressive disorder, generalized anxiety disorder, and post-traumatic stress disorder (PTSD) • Young adults aged 18 to 24 were most likely to report symptoms of depression, anxiety and PTSD • Almost 38% of Canadians reported that, due to the COVID-19 pandemic, they experienced feelings of loneliness or isolation • Those reporting this impact had more than four times higher prevalence of major depressive disorder, generalized anxiety disorder, and probable PTSD, compared with those who did not report experiencing this impact Source	Published 18 March 2021	Not applicable
	<ul style="list-style-type: none"> • Type of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> ○ Prior to or irrespective of the impact of the COVID-19 pandemic ○ During the COVID-19 pandemic • Scale of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> ○ Who is affected (e.g., specific populations) ○ How they are affected (e.g., types of conditions) 	<ul style="list-style-type: none"> • This study examines how Canadians are managing with the COVID-19 pandemic and to determine the impact of the pandemic on levels of anxiety and depression • Canadians aged 18+ years were surveyed, with demographic and regional quotas to ensure that the data accurately reflects the actual population of adult Canadians • This study found that the percentage of individuals who reported high levels of 	Published February 2021	Health services accessibility; social capital

	<ul style="list-style-type: none"> ○ For how long they are affected (e.g., time-limited vs. long-term) 	<p>anxiety and depression has doubled since the COVID-19 pandemic began</p> <ul style="list-style-type: none"> ○ Around 30% of the people surveyed indicated an increase in alcohol and cannabis consumption. This increase is also found in individuals with a diagnosed anxiety disorder, or depression • This study found that individuals predicted that anxiety and depression levels would increase as a result of longer physical-distancing measures • COVID-19 was found to limit opportunities for social engagement and recreation, contributing to increased rates of loneliness • Survey respondents also reported increased difficulties accessing mental health support systems • Recommendations to service providers include increasing digital mental health services and conducting a thorough review of how clients are managing during the COVID-19 outbreak and beyond <p>Source</p>		
	<ul style="list-style-type: none"> • Type of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> ○ Prior to or irrespective of the impact of the COVID-19 pandemic • Scale of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> ○ Who is affected (e.g., specific populations) ○ How they are affected (e.g., types of conditions) 	<ul style="list-style-type: none"> • The study focused on examining the potential determinants of positive mental health, including associations with socio-demographic factors, psychosocial context, and substance use • The authors analyzed data from Grade 7-12 students from nine provinces who took the 2016/2017 Canadian Student Tobacco, Alcohol, and Drugs Survey (CSTADS) and conducted a linear regression to examine potential determinants • The study found the following factors to be associated with a lower Psychological and Social Well-Being (PSWB) score: being in a higher grade; being bullied or bullying others; 	Published February 2021	Place of residence (e.g., residential environment); gender (women's health)

		<p>behavioural issues; living in an urban area; being female; and recent usage of cigarettes, e-cigarettes, or cannabis</p> <ul style="list-style-type: none"> • Pro-social behaviour, such as donations or volunteering, were associated with increased PSWB • The authors noted that causality could not be established from their experiment and that the study was limited by data collected through the CSTADS <p>Source</p>		
	<ul style="list-style-type: none"> • Type of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> ○ During the COVID-19 pandemic • Scale of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> ○ Who is affected (e.g., specific populations) ○ How they are affected (e.g., types of conditions) 	<ul style="list-style-type: none"> • This study investigated the impact of social isolation, school/childcare closures and employment instability caused by the COVID-19 pandemic on the mental health of children and families in Canada • This study used a cross-sectional survey conducted in May 2020 to monitor the mental health of people living in Canada • This study found that following the first lockdown phase in Canada, 44.3% of parents of children <18 years living at home reported worse mental health due to the pandemic <ul style="list-style-type: none"> ○ Unique pressures experienced by this group include worrying about their children's health, mental health and education, while being stressed about looking after children and continuing to work ○ This group was found to report increased alcohol consumption, suicidal thoughts or feelings, self-harm and stress about being safe from physical or emotional domestic violence ○ Men reported increased alcohol use and being stressed about domestic violence compared with women 	Published 12 January 2021	Age (youth and children); social capital (e.g., social isolation)

		<ul style="list-style-type: none"> • This study also found that a majority of parents reported increased positive interactions at home, including having more quality time together, feeling closeness, showing love and affection, and observing resilience in their children • Sources of support identified by parents in this study include exercise, connecting with family and friends digitally, connecting with those in their household, and maintaining a healthy lifestyle <ul style="list-style-type: none"> ○ Technologies were also identified to facilitate social connections, social participation of children and accessing mental health services ○ Limitations to access such as language, internet, finances and special needs could prevent vulnerable groups from accessing these services • Structural supports identified by this group include having a supportive employer, accessing federal financial benefits, or food-based community programs <p>Source</p>		
	<ul style="list-style-type: none"> • Type of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> ○ During the COVID-19 pandemic • Scale of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> ○ How they are affected (e.g., types of conditions) ○ For how long they are affected (e.g., time-limited versus long-term) 	<ul style="list-style-type: none"> • This study investigates the associations between periods of quarantine and mental health, including suicidal ideation and deliberate self-harm • A national survey was administered in May 2020 to Canadians aged 18 and older • This study found that those who have undertaken COVID-19 quarantine as a result of the pandemic are more likely than those who have not to experience suicidal ideation and deliberate self-harm, even after controlling for potential covariates <ul style="list-style-type: none"> ○ Additionally, loss of income, job loss, separation from social supports, food 	Published January 2021	Occupation (e.g., unemployment)

		<p>insecurity, and fears of contracting and spreading illness were associated with quarantine and found to compound mental health impacts during and beyond the quarantine period</p> <ul style="list-style-type: none"> • This study found that individuals who have quarantined due to recent travel are no more likely to report worse mental health, suicidal ideation or self-harm <ul style="list-style-type: none"> ○ Additionally, this group may experience an increased ability to anticipate and prepare logistically and emotionally for the quarantine period • This study recommends mental health checks as part of COVID-19 quarantine follow-up phone calls or visits, appropriate mental health supports for those in quarantine, and responsive programming that addresses mental health consequences that may persist beyond the quarantine period <p>Source</p>		
	<ul style="list-style-type: none"> • Type of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> ○ Prior to or irrespective of the impact of the COVID-19 pandemic ○ During the COVID-19 pandemic • Scale of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> ○ Who is affected (e.g., specific populations) ○ How they are affected (e.g., types of conditions) 	<ul style="list-style-type: none"> • The study aimed to examine Canadians' self-perceived mental health during the pandemic, and its association with other concerns • The authors used the cross-sectional Canadian Perspectives Survey Series 1 to collect information regarding labour market, behaviours and the health of Canadian population (age 15 years and up) • 54% of participants reported excellent or very good mental health during the pandemic, and results point towards lower reported mental health during the pandemic • Individuals with higher levels of education, married, or living in a household with at least two people were found to be more likely to report better mental health 	Published 24 June 2020	Education (e.g., educational status); social capital (e.g., marital status, social isolation); gender; socio-economic status

		<ul style="list-style-type: none"> • Individuals who were younger, female, had compromised immune systems, or were stressed in relation to family confinement during the pandemic were likely to report worse mental health • Of people with significant changes to financial status due to the pandemic, only 25% reported excellent or good mental health • Authors highlight that more Canadian-born individuals took part in the survey, limiting examination of immigrants <p>Source</p>		
	<ul style="list-style-type: none"> • Type of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> ○ Prior to or irrespective of the impact of the COVID-19 pandemic • Scale of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> ○ Who is affected (e.g., specific populations) ○ How they are affected (e.g., types of conditions) 	<ul style="list-style-type: none"> • The study focuses on the prevalence of mental disorders, including major depressive disorder, bipolar disorder, general anxiety disorder, alcohol-use disorder, substance-use disorders, and suicidality, in Canadian provinces • The authors conducted logistic regression on obtained data from the 2012 Canadian Community Health Survey-Mental Health (n=25,113), a representative sample of Canadians aged 15 years or older across all provinces • Prevalence of any mental disorder was 9.59%, with major depressive disorder being the highest at 4.72%, followed by generalized anxiety disorder and alcohol-use disorder • Manitoba was found to have the highest prevalence of mental disorders and high rates of alcohol-use disorder • British Columbia and Ontario displayed high prevalence of suicidality, with a significant increase in suicide attempts only observed in Ontario • Quebec and Prince Edward Island displayed lower rates of morbidity and mental disorders compared to other provinces 	Published November 2019	Place of residence (e.g., residential environment)

		<ul style="list-style-type: none"> • The authors highlighted that socio-demographic contributing factors were outside the scope of the study and that prevalence in specific sub-groups may vary from that of the general population • The authors state that the data used is very old (2012), and that some provinces have already taken efforts to change their health systems <p>Source</p>		
	<ul style="list-style-type: none"> • Type of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> ○ Prior to or irrespective of the impact of the COVID-19 pandemic • Scale of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> ○ Who is affected (e.g., specific populations) ○ How they are affected (e.g., types of conditions) 	<ul style="list-style-type: none"> • The study aimed to analyze the characteristics, health-services use, and healthcare needs of Canadians with general anxiety disorder compared to those with depression • The authors obtained data from the 2012 Canadian Community Health Survey-Mental Health (n=23,416), a representative sample of Canadians aged 15 or older across all provinces, and conducted logistic regression analysis to evaluate health characteristics • Roughly 700,000 participants reported symptoms associated with generalized anxiety disorder (GAD) in the 12 months preceding 2012, and half of these individuals displayed symptoms of a major depressive episode • Individuals with GAD reported fair/poor perceived health (29.7%), as well as moderate to severe psychological distress (81.2%) and moderate to severe disability (28.1%), which was comparable to those with major depressive episodes • Individuals with both GAD and major depressive episodes (MDEs) had worse health outcomes, and 50% of them reported that they believed their need for healthcare had not been met, compared to only 30% of those with either GAD or MDE only 	Published February 2017	Broad equity terms (e.g., health status disparities)

		<ul style="list-style-type: none"> • 75% of individuals with GAD and MDE consulted a healthcare professional, compared to 60% with GAD or MDE only • The authors emphasized that those with GAD reported similar or slightly worse ratings than those with MDE, in relation to their perceived health, mental health, psychological distress, and disability • The authors highlight the participants may be subject to biases when completing the survey and that the survey had an overall low response rate <p>Source</p>		
	<ul style="list-style-type: none"> • Type of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> ○ Prior to or irrespective of the impact of the COVID-19 pandemic • Scale of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> ○ Who is affected (e.g., specific populations) ○ How they are affected (e.g., types of conditions) ○ For how long they are affected (e.g., time-limited versus long-term) 	<ul style="list-style-type: none"> • This study described the epidemiology of generalized anxiety disorder (GAD) in the Canadian population using data collected by the Canadian Community Health Survey: Mental Health and Well-Being conducted in 2012 • A total of 25,113 participants were surveyed across geographical clusters in Canada and sampling weights were produced by Statistics Canada to ensure the sample was representative of the Canadian household population • The lifetime prevalence of GAD was found to be 8.7% (95% CI, 8.2% to 9.3%) and the 12-month prevalence was 2.6% (95% CI, 2.3% to 2.8%) which is slightly above international estimates from the United States, Australia and New Zealand • Immigrant status was found to be a protective factor for GAD, but the authors stated that this may be due to cultural differences in mental health presentation • Additionally, GAD was significantly associated with being female, being middle- 	Published January 2017	Place of residence (e.g., marital status, widow, divorce); race/ethnicity (e.g., immigrants); gender (e.g., gender differences); occupation (e.g., unemployment); socio-economic status

		<p>aged (35-54 years), being single, widowed, or divorced, unemployment, and a low household income</p> <ul style="list-style-type: none"> • Individuals with GAD were more likely to experience significant stress and pain, have poorly perceived health, have difficulty attending work and be financially unstable • These results show that GAD poses a significant burden on the individual and also Canadian society, and deserves more attention in healthcare planning and programs <p>Source</p>		
	<ul style="list-style-type: none"> • Type of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> ◦ Prior to or irrespective of the impact of the COVID-19 pandemic • Scale of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> ◦ Who is affected (e.g., specific populations) • Scale of mental-wellness challenges affecting Canadians 	<ul style="list-style-type: none"> • The prevalence of bipolar disorder I and II (BD I and II) in Canada was estimated based on data from a cross-sectional survey of a nationally representative sample of Canadian residents aged 15 years and older, titled 2012 Canadian Community Health Survey: Mental Health and Well-being • One person aged 15 years or older per sampled household was randomly selected to participate in an interview to derive diagnoses of mental disorders <ul style="list-style-type: none"> ◦ Interviews were based on the World Health Organization's World Mental Health Composite International Diagnostic Interview (WHO WMH-CIDI) • The interviews and survey data showed that the estimated lifetime prevalence of BD I and II in Canada in 2012 was 0.87% (95% CI 0.67% to 1.07%) and 0.57% (95% CI 0.44% to 0.71%), respectively • Estimated prevalence of self-reported BD was 0.87% (95% CI 0.65% to 1.07%) • The authors did conclude that caution should be exercised when interpreting general 	Published March 2015	Age (e.g., youth)

		<p>population studies that use CIDI-defined BD due to possibility of misclassification</p> <p>Source</p>		
	<ul style="list-style-type: none"> • Type of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> ○ During the COVID-19 pandemic • Scale of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> ○ Who is affected (e.g., specific populations) ○ How they are affected (e.g., types of conditions) ○ For how long they are affected (e.g., time-limited versus long-term) 	<ul style="list-style-type: none"> • This study examined COVID-19 risk factors increasing the likelihood of experiencing anxiety symptoms in 1,005 Canadian adults aged 18 years: <ol style="list-style-type: none"> 1) having a job that increases the risk of contracting COVID-19 2) someone close having a job that increases the risk of contracting COVID-19 3) being elderly and/or having a condition that increases the risk of serious illness from COVID-19 or having someone close that is elderly and/or has a condition that increases the risk of serious illness from COVID-19 4) exposure to multiple COVID-19-related risks. • The results showed that respondents who had someone close to them working in a job at high risk for COVID-19 were especially likely to experience anxiety, whereas those working in such jobs themselves were no more likely to experience anxiety after controlling for socio-demographic factors such as gender, age, household size, ethnicity, income, and education • The authors found that diminished perceptions of control were associated with both short- and long-term anxiety, in which individuals who are especially affected by anxiety may be feeling less control over the situation, such as when someone close to them is working at a high-risk job • Being elderly, having a health condition, or having someone close who is elderly and/or 	Published January 2021	Age (e.g., older adults)

		has a health condition was not associated with anxiety Source		
	<ul style="list-style-type: none"> • Type of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> ○ Prior to or irrespective of the impact of the COVID-19 pandemic • Scale of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> ○ Who is affected (e.g., specific populations) ○ How they are affected (e.g., types of conditions) 	<ul style="list-style-type: none"> • The study aimed to better understand the use of professional mental health services in Canadian immigrants • The authors examined the differences between mental health visits with a psychiatrist versus a general practitioner in immigrant populations compared to those who were born in Canada • The authors developed multilevel regression models using data obtained from the Canadian Community Health Survey (CCHS) from 2015 to 2016 regarding consultations with mental health professionals, consultations with specialists, and prevalence of mood and anxiety disorders • Prevalence of mood disorders and anxiety disorders was 5.24% and 4.47% in immigrants, compared to 9.15% and 9.51% in Canadian-born individuals respectively • Immigrants were found to have lesser chances of consulting any mental health professionals, however, they were more likely to consult with a psychiatrist, which may mean a delay in receiving treatment may cause further deterioration of mental health • Immigrants who felt a weak sense of belonging in their communities, those from low-income households, those who lived in rental accommodations, smokers, or those with chronic conditions all had significantly higher chances of consulting health professionals • Immigrants had significantly lesser chances of having mood or anxiety disorders, however, female immigrants had comparatively increased odds of having these disorders 	Published 16 September 2020	Broad equity terms (e.g., health status disparities); race/ethnicity (e.g., minority, ethnic); socio-economic status

		<ul style="list-style-type: none"> • Canadian-born populations were found to be more likely to self-diagnose themselves with mood and anxiety disorders compared to immigrants • Immigrants may not be as aware of other primary-care providers for mental health issues due to traditional knowledge of psychiatrists from their respective backgrounds • The study was limited by the CCHS data variables and Aboriginal populations were not considered as part of the Canadian-born population <p>Source</p>		
	<ul style="list-style-type: none"> • Type of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> ○ Prior to or irrespective of the impact of the COVID-19 pandemic • Scale of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> ○ Who is affected (e.g., specific populations) ○ How they are affected (e.g., types of conditions) 	<ul style="list-style-type: none"> • The study aimed to understand ethnic differences in the severity of illnesses at hospital admissions among Chinese, South Asian, and the general Ontario population • The authors conducted a cross-sectional study of discharged psychiatric inpatients, aged 19-105 years, from the Ontario Mental Health Reporting System (OMHRS) with 2,582 classified as Chinese, 2,452 as South Asian, or 128,554 as part of the reference group • Chinese and South Asian patients had a higher chance of involuntary admissions and displaying severe aggressive behaviour compared to the reference group • A large percentage of both ethnic minorities had at least one positive symptom of schizophrenia, with many displaying at least three or four symptoms • Chinese patients typically had greater illness severity compared to the general population • The correlation between ethnicity and illness severity were consistent between the sexes 	Published 9 September 2016	Broad equity terms (e.g., health status disparities); race/ethnicity (e.g., minority, ethnic)

		<ul style="list-style-type: none"> • The study suggests there may be an association between progression of illness severity and delay in seeking help, and found that some evidence suggests that earlier access to culturally appropriate care could lead to lower severity at hospitalization • The study highlights that surnames were used in classification of ethnicities, and may have led to misclassification of Chinese and South Asians to the general population <p>Source</p>		
	<ul style="list-style-type: none"> • Type of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> ○ Prior to or irrespective of the impact of the COVID-19 pandemic • Scale of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> ○ Who is affected (e.g., specific populations) ○ How they are affected (e.g., types of conditions) 	<ul style="list-style-type: none"> • Gender differences in the prevalence of social-anxiety disorder was assessed using nationally representative data from the 2005 Canadian Community Health Survey • The Survey provides cross-sectional data from 36,984 Canadians, aged 15 to 80+ years • 7,749 male and female respondents were identified as potentially socially anxious and screened, with 3,061 (8.1% of the total Canadian sample) identified as meeting criteria for lifetime social-anxiety disorder <ul style="list-style-type: none"> ○ Out of the 3,061 respondents, 39.6% were males and 60.4% were females • Socially anxious females were more likely to meet criteria for either comorbid lifetime or 12-month major depressive disorder than socially anxious males <p>Source</p>	Published May 2013	Gender
	<ul style="list-style-type: none"> • Type of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> ○ Prior to or irrespective of the impact of the COVID-19 pandemic • Scale of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> ○ Who is affected (e.g., specific populations) 	<ul style="list-style-type: none"> • The study investigated whether longitudinal trends in mental distress differed between cultural and ethnic groups, and if mental distress varied due to socio-demographic factors within the same ethnic group • The authors used a logistic regression model with a study population of 14,713 respondents from the National Population Health Survey (NPHS) 	Published June 2012	Broad equity terms (e.g., health status disparities); race/ethnicity (e.g., minority, ethnic); socio-economic status; gender

	<ul style="list-style-type: none"> ○ How they are affected (e.g., types of conditions) 	<ul style="list-style-type: none"> • Females and younger participants self-reported mental distress more often than male respondents • Those who had lived in Canada for less than two years or for more than 20 years were less likely to report mental distress compared to those who lived in Canada for two to 20 years • Lower income individuals, urban residents, single individuals, and current smokers were also more likely to report higher mental distress • Canadian-born individuals of Eastern European ethnicity had the highest likelihood of reporting moderate/high mental distress • The study found that the relationship between ethnicity and mental distress was affected by immigrant status, sex, social involvement score (SIS) and education • Immigrant physical and mental health was found to deteriorate during the first couple of years after immigration, but was found to slightly improve or level off afterwards • The study highlights a need to create ethnicity-specific mental health programs <p>Source</p>		
	<ul style="list-style-type: none"> • Type of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> ○ Prior to or irrespective of the impact of the COVID-19 pandemic • Scale of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> ○ Who is affected (e.g., specific populations) 	<ul style="list-style-type: none"> • This study analyzed the data from the Black Community Mental Health project in Canada and reported on the prevalence of depression in a sample of Black Canadians, and the association between everyday racial discrimination experiences and depression • The findings reveal that rates of depressive symptoms among Black individuals are nearly six times the 12-month prevalence reported for the general population in Canada, with higher rates among women and those 	Published September 2021	Race/ethnicity (e.g., Black communities)

		<p>experiencing a high level of racial discrimination</p> <p>Source</p>		
	<ul style="list-style-type: none"> • Type of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> ○ Prior to or irrespective of the impact of the COVID-19 pandemic • Scale of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> ○ Who is affected (e.g., specific populations) ○ How they are affected (e.g., types of conditions) 	<ul style="list-style-type: none"> • This study uses data obtained from the 2012 Canadian Community Health Survey-Mental Health to evaluate associations between stroke, depression, anxiety, and physical disability • A sample of 19,159 participants aged 30 years or older were surveyed with complete assessment data on stroke, depression, and generalized anxiety disorder (GAD) • The data from this survey indicated that after adjusting for socio-demographic factors, populations with stroke were more likely to have depression and GAD comorbidity as well as GAD than those without a history of stroke • Participants with GAD only were found to be more likely to exhibit physical disability than those with neither of the conditions • This study indicates that people with stroke were more vulnerable to comorbid depression and GAD • This study found no significant association between stroke and depression, as well as between post-stroke depression and physical disability • Limitations to this study include a lack of temporal relationship between variables investigated, the examination of confounders, and the relatively small sample size of people who have experienced a stroke <p>Source</p>	Published August 2020	Not applicable
	<ul style="list-style-type: none"> • Type of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> ○ Prior to or irrespective of the impact of the COVID-19 pandemic 	<ul style="list-style-type: none"> • This study compares national mental health survey data from 2002 to 2012 to determine whether changes have occurred in the 	Published February 2016	Place of residence

	<ul style="list-style-type: none"> • Scale of mental-wellness challenges affecting Canadians <ul style="list-style-type: none"> ○ Who is affected (e.g., specific populations) ○ How they are affected (e.g., types of conditions) 	<p>prevalence, treatment, and impact of major depressive episodes</p> <ul style="list-style-type: none"> • Data from over 50,000 people aged 15 years or older living in private occupied dwellings were surveyed • The World Mental Health Composite International Diagnostic Interview was used to assess annual and lifetime prevalence of major depressive episodes • The use of mental health services, medications, and self-reported distress were also included in both surveys • The results of this study indicate that there has been an increase in multiple visits to health professionals among people with major depression <ul style="list-style-type: none"> ○ This increase was most notably seen with clinical psychologists, social workers, or psychotherapists • The proportion of people with past-year major depressive episodes who are receiving potentially adequate treatment has increased about 10% over the past 10 years and is now about 50% • A limitation to the data is the absence of information on the content or quality of psychotherapy and the dosage and adherence of medication • The results of this study indicate that more people are seeking treatment and their pattern of contact with the health system is consistent with receipt of a higher standard of care <p>Source</p>		
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Appendix 3: Key findings from evidence documents that address the question, organized by document type, and sorted by relevance to the question of evidence for mental health system-transformation initiatives

Type of document	Relevance to question	Key findings	Recency or status	Equity considerations (PROGRESS-Plus)
Guidelines	<ul style="list-style-type: none"> Mental health system-transformation initiatives underway across Canada <ul style="list-style-type: none"> Level of transformation initiatives <ul style="list-style-type: none"> National 	<ul style="list-style-type: none"> This guideline from the Canadian Association of Colleges and University Student Services (CACUSS) provides data-informed challenges and opportunities for campus mental health during the COVID-19 pandemic, including insights from surveys, reports, and task forces' recommendations Recommendations cover a range of concerns, including clinical (assess pre-existing challenges in the context of COVID-19 disruptions, develop community partnerships for specialized treatment), equitable and inclusive services (engage students from diverse backgrounds to design antiracism programs, personalized outreach to students of vulnerable or racialized populations), accessibility (flexible application of policies, provide flexible and accessible models of mental health care), evidence-based mental health services (ongoing feedback systems, regular collection of diverse range of data), ethical considerations for virtual/remote mental health services (boundaries of practice, record-keeping) <p><u>Source</u></p>	Published November 2020	Broad equity terms (e.g., equity); race/ethnicity
Full Systematic Review	<ul style="list-style-type: none"> Mental health system-transformation initiatives underway across Canada <ul style="list-style-type: none"> Types of health-system arrangements being transformed <ul style="list-style-type: none"> Delivery arrangements 	<ul style="list-style-type: none"> The primary aim of this systematic review was to examine the effectiveness of telehealth interventions in improving the mental health of adults during the COVID-19 pandemic The most common forms of telecommunication methods employed among the 12 relevant studies were telephone contacts, guided online group sessions, online applications, and videoconferencing; 	Literature last searched February 2022	None identified

		<p>the primary outcomes consisted of measuring anxiety, loneliness, and depression levels</p> <ul style="list-style-type: none"> • Out of the 12 included studies, 11 found a statistically significant relationship between the use of telemedicine interventions and an improvement in adult mental health • The authors do note challenges in identifying the most effective form of telemedicine, as populations may respond differently to varied intervention methods (e.g., older adults having difficulty with utilizing modern technologies) <p>Source (5/10 AMSTAR rating from McMaster Health Forum)</p>		
	<ul style="list-style-type: none"> • Mental health system-transformation initiatives underway across Canada <ul style="list-style-type: none"> ○ Types of health-system arrangements being transformed <ul style="list-style-type: none"> ▪ Delivery arrangements ○ Types of sectors involved <ul style="list-style-type: none"> ▪ Primary care 	<ul style="list-style-type: none"> • The aim of this systematic review was to investigate the roles of mobile health (mHealth) in the psychosocial health of pregnant women and mothers • mHealth was found to improve self-management, acceptance of pregnancy/motherhood and social support, but mixed results were observed for anxiety and depressive symptoms, perceived stress, coping, mental well-being, and self-efficacy • Results also indicated that pregnant women and mothers from vulnerable populations benefited from the use of mHealth to facilitate access to healthcare services and improve their psychosocial health <p>Source (4/10 AMSTAR rating from McMaster Health Forum)</p>	Literature last searched 15 November 2021	Gender/sex
	<ul style="list-style-type: none"> • Mental health system-transformation initiatives underway across Canada <ul style="list-style-type: none"> ○ Types of health-system arrangements being transformed <ul style="list-style-type: none"> ▪ Delivery arrangements ○ Types of sectors involved <ul style="list-style-type: none"> ▪ Primary care 	<ul style="list-style-type: none"> • This systematic review aimed to determine the efficacy of psychological or educational eHealth interventions in reducing depression, anxiety, acute stress disorder, or post-traumatic stress in parents of infants born preterm or with low birthweight • None of the included studies reported on the primary outcomes of the review, but three showed potential benefits for parental self-efficacy and 	Published April 2021	Gender/sex

		satisfaction, discharge preparedness, and family satisfaction with the neonatal intensive care unit Source (5/9 AMSTAR rating from McMaster Health Forum)		
	<ul style="list-style-type: none"> • Mental health system-transformation initiatives underway across Canada <ul style="list-style-type: none"> ○ Types of health-system arrangements being transformed <ul style="list-style-type: none"> ▪ Delivery arrangements 	<ul style="list-style-type: none"> • The main objectives of this systematic review were to: 1) examine the impact of eHealth interventions on the stress and mental health outcomes for parents; and 2) determine program- and family-related factors that may influence the effectiveness of eHealth interventions • A total of 38 studies from across 13 countries were included within the review, all of which focused on an eHealth intervention, reported on mental health outcomes (e.g., anxiety, depression and stress), and consisted of parents who had children age one to five years • Among the breadth of eHealth interventions employed, 23 were fully digitized (e.g., three application-based and 20 web-based), nine were clinician-led (e.g., videoconferencing and phone), and six had a combination of digital and clinician-led elements • The findings from this study found that eHealth interventions were associated with a significant increase in overall mental health among participants; however, no factors of interest (e.g., program- or family-related) yielded any statistically significant results • The authors do acknowledge the heterogeneity of eHealth interventions and the lack of generalizability as possible sources of limitations for the review Source (7/11 AMSTAR rating from McMaster Health Forum) 	Literature last searched July 2020	None identified
	<ul style="list-style-type: none"> • Mental health system-transformation initiatives underway across Canada <ul style="list-style-type: none"> ○ Types of health-system arrangements being transformed <ul style="list-style-type: none"> ▪ Delivery arrangements 	<ul style="list-style-type: none"> • The primary objective of this systematic review was to investigate the effectiveness of eHealth interventions that target sexual risk, substance use, and mental illness in men who have sex with men (MSM) 	Literature last searched April 2020	Gender/sex

		<ul style="list-style-type: none"> • Factors that would help to improve the usability and acceptability of eHealth interventions among this population included: 1) ease of use of the platform; 2) privacy protection; 3) tailored content that enables self-reflection and connectedness; 4) language that affirms sexual-minority identities; and 5) a broad range of media • The authors of this review found evidence to suggest that eHealth interventions are a suitable therapy option for assisting with sexual risk, substance use, and mental health among MSM from a range of socio-demographic groups <p>Source (6/9 AMSTAR rating from McMaster Health Forum)</p>		
	<ul style="list-style-type: none"> • Mental health system-transformation initiatives underway across Canada <ul style="list-style-type: none"> ○ Types of health-system arrangements being transformed <ul style="list-style-type: none"> ▪ Delivery arrangements 	<ul style="list-style-type: none"> • This systematic review surveys studies of telehealth mental health interventions tailored for African-American adults in the United States • Three studies were included; they had a total of 32 participants and included one randomized controlled trial and two prospective cohort studies • The studied interventions included telephone-based cognitive behavioural therapy and an internet-based peer support intervention delivered via HealthMpowerment.org • All three studies reported reductions in depressive symptoms post-intervention • The randomized controlled trial found no differences between telephone and face-to-face CBT outcomes <p>Source (5/9 AMSTAR rating from McMaster Health Forum)</p>	Literature last searched December 2019	Race/ethnicity/culture/language
	<ul style="list-style-type: none"> • Mental health system-transformation initiatives underway across Canada <ul style="list-style-type: none"> ○ Types of health-system arrangements being transformed <ul style="list-style-type: none"> ▪ Delivery arrangements 	<ul style="list-style-type: none"> • The primary focus of this systematic review was to examine the perceptions of healthcare professionals regarding facilitators and barriers to implementing web-based psychological treatment interventions for adults 	Literature last searched October 2019	None identified

		<ul style="list-style-type: none"> • The review identified a total of 29 articles, of which 14 were qualitative studies, 11 were quantitative studies, and four employed a mixed-methods study design • Within the included studies, six primary themes were explored: 1) patient factors; 2) health-professional factors; 3) therapeutic relationship; 4) therapy factors; 5) organizational and system factors; and 6) models of care • The findings from the review revealed: 1) a neutral-to-positive sentiment regarding web-based therapies; however, there was an inclination to adopt a blended-therapy method, which facilitates patient-provider relationships and active monitoring/follow-up, as opposed to implementing web technologies as a stand-alone form of therapy; 2) web-based therapies would be suitable for patients with low-risk diagnoses, who have a strong sense of motivation, computer literacy, and internet access; and 3) flexibility with respect to time and location is noted as one of the primary benefits to such an adoption • To adopt web-based therapy more broadly within the sector, a few concerns would need to be addressed, including measures to protect patient data and maintain confidentiality, establishing clear protocols for providers, and having the necessary education and training for providers to facilitate a seamless transition to virtual care delivery <p>Source (4/9 AMSTAR rating from McMaster Health Forum)</p>		
	<ul style="list-style-type: none"> • Mental health system-transformation initiatives underway across Canada <ul style="list-style-type: none"> ○ Types of health-system arrangements being transformed <ul style="list-style-type: none"> ▪ Delivery arrangements 	<ul style="list-style-type: none"> • The primary focus of this systematic review was to examine the impact of online videoconferencing therapies for veterans, and identify possible facilitators and barriers to implementation of such interventions in military organizations • Within the 10 included articles, the most frequently noted barriers to implementation included clinician 	Literature last searched May 2018	Occupation

		<p>concerns (e.g., skepticism, and a lack of time, need, and training experience), logistical issues (e.g., scheduling, staffing, and support), technology (inadequate expertise with respect to technical support, set-up, and connection), and a lack of resource access (e.g., did not possess sufficient funding, equipment, and space)</p> <ul style="list-style-type: none"> Facilitators for videoconferencing programs included dedicated staff members (e.g., ‘on-site champions’ and technicians), implementation strategies, and prior experience with adopting such treatment interventions in the past <p>Source (5/9 AMSTAR rating from McMaster Health Forum)</p>		
	<ul style="list-style-type: none"> Mental health system-transformation initiatives underway across Canada <ul style="list-style-type: none"> Types of health-system arrangements being transformed <ul style="list-style-type: none"> Delivery arrangements 	<ul style="list-style-type: none"> This systematic review examines the impact of online lifestyle interventions for depressed populations Lifestyle interventions are defined as those that target nutrition, physical activity, sleep and addictions Seven studies were included in this review, encompassing a total of 1,964 participants and involved lifestyle interventions targeting alcohol reduction, sleep, physical activity, substance use, and smoking Four studies reported significant changes in the targeted lifestyle behaviour, and three studies reported significant improvements in depression symptom severity Three studies reported low levels of attrition (less than 30%), three reported moderate attrition (30% to 70%), and one study reported high attrition (greater than 70%) <ul style="list-style-type: none"> The authors note that lower attrition rates were seen in interventions that also included therapist assistance or counselling, or had lower participation requirements 	Literature last searched June 2017	None identified

		<ul style="list-style-type: none"> ○ Low-to-moderate attrition was observed in studies that employed email and text notifications and/or follow-up phone calls ● The five most commonly employed behaviour change techniques include self-monitoring, information provision, instructions on how to change behaviour, social support, and goal-setting <p>Source (5/9 AMSTAR rating from McMaster Health Forum)</p>		
	<ul style="list-style-type: none"> ● Mental health system-transformation initiatives underway across Canada <ul style="list-style-type: none"> ○ Types of health-system arrangements being transformed <ul style="list-style-type: none"> ▪ Delivery arrangements ○ Types of sectors involved <ul style="list-style-type: none"> ▪ Home and community care 	<ul style="list-style-type: none"> ● This systematic review provides an overview of the literature regarding the use of web-based or smartphone app interventions for caregivers of patients with severe mental illnesses and patients themselves ● Eleven studies were included, all of which looked at the use of novel technologies for patients themselves (no studies involving caregivers were identified) ● The interventions identified included internet-based programs and mobile applications, some of which were interactive ● In general, the interventions examined in the included studies were found to be acceptable, credible and feasible, and there were different options identified for implementing them ● Many of the included studies were not designed nor powered to assess efficacy; however, four randomized controlled trials found the interventions to have beneficial effects on symptoms and indicators of functioning <p>Source (4/9 AMSTAR rating from McMaster Health Forum)</p>	Literature last searched July 2017	None identified
	<ul style="list-style-type: none"> ● Mental health system-transformation initiatives underway across Canada <ul style="list-style-type: none"> ○ Types of health-system arrangements being transformed <ul style="list-style-type: none"> ▪ Delivery arrangements 	<ul style="list-style-type: none"> ● This systematic review examines studies conducted about the use of telehealth interventions for older adults with depressive symptoms ● A total of nine articles were included, with a combined total of 2,032 participants 	Literature last searched 27 September 2017	None identified

		<ul style="list-style-type: none"> • Telehealth delivery of interventions was generally found to be effective at improving depressive symptoms (or at least was no worse than relevant comparisons) • Healthcare providers were generally found to be supportive of the use of telehealth interventions, though there was some disagreement noted about its ease of use and equivalence to usual on-site visits • Noted predictors that help influence the adoption of telehealth interventions include trust in telehealth, acceptance of new technologies, healthcare habits, dissatisfaction with traditional healthcare, and online behaviours <p>Source (5/10 McMaster Health Forum AMSTAR rating)</p>		
	<ul style="list-style-type: none"> • Mental health system-transformation initiatives underway across Canada <ul style="list-style-type: none"> ○ Level of transformation initiatives <ul style="list-style-type: none"> ▪ National ○ Types of health-system arrangements being transformed <ul style="list-style-type: none"> ▪ Delivery arrangements ○ Types of sectors involved <ul style="list-style-type: none"> ▪ Primary care 	<ul style="list-style-type: none"> • The aims of this systematic review were to identify current knowledge about e-mental health service utilization in Australia for depressive and anxiety disorders, synthesize evidence relevant to e-mental health policy development, and identify future directions for policy-focused research • E-mental health services are predominantly used by females, and people who are more educated and socio-economically advantaged • There was a shortage of studies about different ethnic groups • Overall, little research focuses explicitly on policy development and implementation planning, and general population studies including ethnicity and socio-economic status for all treatment modalities are necessary <p>Source (7/9 McMaster Health Forum AMSTAR rating)</p>	Literature last searched 2015	None identified
	<ul style="list-style-type: none"> • Mental health system-transformation initiatives underway across Canada <ul style="list-style-type: none"> ○ Types of health-system arrangements being transformed <ul style="list-style-type: none"> ▪ Delivery arrangements 	<ul style="list-style-type: none"> • In this systematic review, researchers compared the efficacy and cost-effectiveness of stepped-care treatment and prevention with care-as-usual (CAU) or waiting-list control for depressive and/or anxiety disorders 	Published 5 July 2016	None identified

	<ul style="list-style-type: none"> ○ Types of sectors involved <ul style="list-style-type: none"> ▪ Primary care 	<ul style="list-style-type: none"> • Results showed that stepped-care treatment was significantly better than CAU in reducing anxiety symptoms, with a significantly higher response rate of anxiety disorders in stepped-care treatment compared to CAU • No significant difference was found between stepped-care treatment or prevention and CAU in preventing anxiety and/or depressive disorders and improving depressive symptoms <p>Source (9/11 McMaster Health Forum AMSTAR rating)</p>		
	<ul style="list-style-type: none"> • Mental health system-transformation initiatives underway across Canada ○ Types of health-system arrangements being transformed <ul style="list-style-type: none"> ▪ Delivery arrangements ○ Types of sectors involved <ul style="list-style-type: none"> ▪ Primary care 	<ul style="list-style-type: none"> • This systematic scoping review aimed to identify the existing literature on digital videogame interventions for youth (ages 12 to 29) and map the evidence on the broad aims of these games and their use with a full range of mental health and substance-use problems • Findings of the review support the potential integration of digital games in youth services based on study outcomes, high program retention rates, user satisfaction, and the potential usefulness of most games for mental health treatment or promotion/prevention • Interestingly, the literature was nearly silent on whether digital game interventions may be associated with gaming disorders or related harms, and the authors suggested that more research is needed to better understand how digital gaming interventions can be used safely <p>Source (5/9 McMaster Health Forum AMSTAR rating)</p>	Published 7 April 2022	None identified
	<ul style="list-style-type: none"> • Mental health system-transformation initiatives underway across Canada ○ Types of health-system arrangements being transformed <ul style="list-style-type: none"> ▪ Delivery arrangements ○ Types of sectors involved <ul style="list-style-type: none"> ▪ Primary care 	<ul style="list-style-type: none"> • This review explored user-centred approaches to designing online mental health interventions specifically for students in higher education/post-secondary students • The interventions identified in the included studies targeted various areas of mental health, including depression, anxiety, and mental health awareness, 	Literature last searched 14 January 2021	None identified

		<p>and were commonly delivered through mobile apps, web-based apps, and desktop apps</p> <ul style="list-style-type: none"> The researchers found limited use of design frameworks, and that most of the studies had not progressed enough to determine the impact of design methodologies on the success of these interventions <p>Source (2/9 McMaster Health Forum AMSTAR rating)</p>		
	<ul style="list-style-type: none"> Mental health system-transformation initiatives underway across Canada <ul style="list-style-type: none"> Types of health-system arrangements being transformed <ul style="list-style-type: none"> Delivery arrangements Types of sectors involved Primary care 	<ul style="list-style-type: none"> The review emphasized that the absence of an appropriate predictive planning framework is one critical reason that countries fail to make substantial progress in mental health outcomes Utilization of advanced decision-support tools, such as systems modelling and simulation, is now required to bring a necessary discipline to new national and local investments in transforming mental health systems Overall, systems modelling and simulation deliver an interactive decision-analytic tool to test mental health reform and service-planning scenarios in a safe environment <p>Source (AMSTAR rating – Not available)</p>	Published 5 June 2020	None identified
	<ul style="list-style-type: none"> Mental health system-transformation initiatives underway across Canada <ul style="list-style-type: none"> Types of health-system arrangements being transformed <ul style="list-style-type: none"> Delivery arrangements Types of sectors involved <ul style="list-style-type: none"> Primary care 	<ul style="list-style-type: none"> This systematic review aimed to provide an update of the current literature on the cost-effectiveness of mental health promotion and prevention interventions in children, adolescents, adults, and older adults Interventions for mental health prevention and promotion were cost-effective or cost saving Overall, a significant growth of economic evaluations in prevention of mental disorders or promotion of mental health and well-being was found <p>Source (5/10 McMaster Health Forum AMSTAR rating)</p>	Literature last searched October 2020	None identified
	<ul style="list-style-type: none"> Mental health system-transformation initiatives underway across Canada 	<ul style="list-style-type: none"> The main objectives of this systematic review were to: 1) examine the impact of eHealth interventions 	Literature last searched July 2020	None identified

	<ul style="list-style-type: none"> ○ Types of health-system arrangements being transformed <ul style="list-style-type: none"> ▪ Delivery arrangements 	<p>on the stress and mental health outcomes for parents; and 2) determine program- and family-related factors that may influence the effectiveness of eHealth interventions</p> <ul style="list-style-type: none"> • A total of 38 studies from across 13 countries were included within the review, all of which focused on an eHealth intervention, reported on mental health outcomes (e.g., anxiety, depression and stress), and consisted of parents who had children between one and five years of age • Among the breadth of eHealth interventions employed, 23 were fully digitized (e.g., three application-based and 20 web-based), nine were clinician-led (e.g., videoconferencing and phone), and six had a combination of digital and clinician-led elements • The findings from this study found that eHealth interventions were associated with a significant increase in overall mental health among participants; however, no factors of interest (e.g., program- or family-related) yielded any statistically significant results • The authors do acknowledge the heterogeneity of eHealth interventions and the lack of generalizability as possible sources of limitations for the review <p>Source (7/11 McMaster Health Forum AMSTAR rating)</p>		
	<ul style="list-style-type: none"> • Mental health system-transformation initiatives underway across Canada <ul style="list-style-type: none"> ○ Types of health-system arrangements being transformed <ul style="list-style-type: none"> ▪ Delivery arrangements ○ Types of sectors involved <ul style="list-style-type: none"> ▪ Primary care 	<ul style="list-style-type: none"> • This study systematically reviewed barriers and facilitators to user engagement with digital mental health interventions such as mobile apps that aim to increase access to mental health support • Common barriers identified included severe mental health issues, technical challenges, and a lack of personalization of the available supports • Facilitators included social connectedness enabled by the intervention, increased insight into one's 	Last searched December 2019	None identified

		<p>health, and a feeling of being in control of one's health</p> <p>Source (5/9 McMaster Health Forum AMSTAR rating)</p>		
	<ul style="list-style-type: none"> • Mental health system-transformation initiatives underway across Canada <ul style="list-style-type: none"> ○ Types of health-system arrangements being transformed <ul style="list-style-type: none"> ▪ Delivery arrangements ○ Types of sectors involved <ul style="list-style-type: none"> ▪ Primary care 	<ul style="list-style-type: none"> • This review aimed to analyze the challenges and barriers found in mental healthcare systems and the impact they have on the family • Very closely related structural, cultural, economic and healthcare barriers contribute to the treatment gap in mental health • Family covers the care systems' deficiencies and weaknesses, and people with mental illness and their families should be able to participate in the development of policies to help strengthen the mental healthcare system by improving the adaptation, continuity, suitability and efficiency of the care <p>Source</p>	Literature last searched 10 May 2019	None identified
	<ul style="list-style-type: none"> • Mental health system-transformation initiatives underway across Canada <ul style="list-style-type: none"> ○ Types of health-system arrangements being transformed <ul style="list-style-type: none"> ▪ Delivery arrangements ○ Types of sectors involved <ul style="list-style-type: none"> ▪ Primary care 	<ul style="list-style-type: none"> • This study systematically reviewed literature to evaluate the effectiveness, usability, acceptability, uptake, and adoption of digital mental health interventions for treating depression and anxiety, and for enhancing psychological well-being among college students • Most interventions (71/89, 80%) were website-delivered, and the most common intervention was internet-based cognitive behavioural therapy (28, 31%). • Overall, digital mental health interventions can be effective for improving depression, anxiety, and psychological well-being <p>Source (5/9 McMaster Health Forum AMSTAR rating)</p>	Literature last searched 18 April 2019	
	<ul style="list-style-type: none"> • Mental health system-transformation initiatives underway across Canada <ul style="list-style-type: none"> ○ Types of health-system arrangements being transformed 	<ul style="list-style-type: none"> • The systematic review aimed to identify uses of telehealth technology for severe mental illness and its efficacy for said use 	Published on 2 November 2018	None identified

	<ul style="list-style-type: none"> ▪ Delivery arrangement ○ Types of sectors involved <ul style="list-style-type: none"> ▪ Home and community care ▪ Specialty care 	<ul style="list-style-type: none"> • The study found that telehealth technology, specifically telephone support, was effective in improving medication adherence and reducing the severity of symptoms and inpatient days • Not all forms of telehealth support (such as education via computer) was accepted equally by all patients <p>Source (5/9 McMaster Health Forum AMSTAR rating)</p>		
	<ul style="list-style-type: none"> • Mental health system-transformation initiatives underway across Canada <ul style="list-style-type: none"> ○ Types of health-system arrangements being transformed <ul style="list-style-type: none"> ▪ Delivery arrangement ○ Types of sectors involved <ul style="list-style-type: none"> ▪ Public health 	<ul style="list-style-type: none"> • The scoping review aimed to describe the use of telehealth technology for mental health services during the COVID-19 pandemic • Half of the identified articles in the review described the general benefits of telehealth mental care, with no specific focus on a health disorder, highlighting the generalizability of telehealth for the spectrum of mental healthcare • Generally, the study results encourage the notion of the usefulness and effectiveness of telehealth support during and beyond the COVID-19 pandemic <p>Source (3/10 McMaster Health Forum AMSTAR rating)</p>	Published 11 August 2018	None identified
	<ul style="list-style-type: none"> • Mental health system-transformation initiatives underway across Canada <ul style="list-style-type: none"> ○ Types of health-system arrangements being transformed ○ Delivery arrangements 	<ul style="list-style-type: none"> • The primary focus of this systematic review was to examine the impact of online videoconferencing therapies for veterans, and identify possible facilitators and barriers to implementation of such interventions in military organizations • Within the 10 included articles, the most frequently noted barriers to implementation included clinician concerns (e.g., skepticism, and a lack of time, need, and training experience), logistical issues (e.g., scheduling, staffing, and support), technology (inadequate expertise with respect to technical support, set-up, and connection), and a lack of resource access (e.g., did not possess sufficient funding, equipment, and space) 	Literature last searched May 2018	Occupation

		<ul style="list-style-type: none"> Facilitators for videoconferencing programs included dedicated staff members (e.g., ‘on-site champions’ and technicians), implementation strategies, and prior experience with adopting such treatment interventions in the past <p>Source (5/9 McMaster Health Forum AMSTAR rating)</p>		
	<ul style="list-style-type: none"> Mental health system-transformation initiatives underway across Canada <ul style="list-style-type: none"> Types of health-system arrangements being transformed <ul style="list-style-type: none"> Delivery arrangement Types of sectors involved <ul style="list-style-type: none"> Home and community care 	<ul style="list-style-type: none"> The systematic review aimed to study the feasibility, effectiveness, and implementation of health professional-led group videoconferencing in home settings Overall, videoconferencing was supported by participants, with some preferring face-to-face groups Groups delivered by videoconference are feasible and potentially can improve the accessibility of group interventions, particularly for those living rurally <p>Source (3/10 McMaster Health Forum AMSTAR rating)</p>	Published on 2 February 2018	None identified
	<ul style="list-style-type: none"> Mental health system-transformation initiatives underway across Canada <ul style="list-style-type: none"> Types of health-system arrangements being transformed <ul style="list-style-type: none"> Delivery arrangement Types of sectors involved <ul style="list-style-type: none"> Public health 	<ul style="list-style-type: none"> The aim of the study is to evaluate the use of telehealth technology in low- and middle-income countries Generally, research in this field is sparse but videoconferencing technology use continues to be the most researched Interventional studies showed benefit in reducing patient symptoms (specifically for Alzheimer’s), increased assessments, and user satisfaction <p>Source (5/9 McMaster Health Forum AMSTAR rating)</p>	Published on 11 January 2018	None identified
	<ul style="list-style-type: none"> Mental health system-transformation initiatives underway across Canada <ul style="list-style-type: none"> Types of health-system arrangements being transformed <ul style="list-style-type: none"> Delivery arrangements Types of sectors involved <ul style="list-style-type: none"> Primary care 	<ul style="list-style-type: none"> This systematic review identified modes of digital delivery used in mental health interventions for children and youth, facilitators to usage and implementation, and whether children and youth engage in digital-health interventions Six modes of delivery were identified: 1) websites; 2) games and computer-assisted programs; 3) apps; 4) 	Literature last searched 27 December 2018	None identified

		<p>robots and digital devices; 5) virtual reality; and 6) mobile text messaging</p> <ul style="list-style-type: none"> • Children and youth tend to prefer digital-health interventions with features such as videos, limited text, and the ability to personalize, connect with others, and have the option to receive text message reminders • Overall, the review found a high average retention rate of 79% in studies examining digital mental health interventions in children and youth <p>Source (6/9 McMaster Health Forum AMSTAR rating)</p>		
	<p>Mental health system-transformation initiatives underway across Canada</p> <ul style="list-style-type: none"> • Types of health-system arrangements being transformed <ul style="list-style-type: none"> ○ Delivery arrangement • Types of sectors involved <ul style="list-style-type: none"> ○ Home and community care ○ Primary care ○ Specialty care ○ Rehabilitation care ○ Long-term care 	<ul style="list-style-type: none"> • The aim of the study was to investigate an integrated internet- and face-to-face-based methods of healthcare provision and their effectiveness • Results from the study show enhanced benefit of the blended approach compared with stand-alone face-to-face interventions • Amongst the benefits listed are saving clinician time, reducing therapy outcome, and can lead to lower dropout rates and/or greater abstinence rates of patients with substance abuse <p>Source (4/9 McMaster Health Forum AMSTAR rating)</p>	Published 15 September 2017	None identified
	<ul style="list-style-type: none"> • Mental health system-transformation initiatives underway across Canada <ul style="list-style-type: none"> ○ Types of health-system arrangements being transformed <ul style="list-style-type: none"> ▪ Delivery arrangements ○ Types of sectors involved <ul style="list-style-type: none"> ▪ Primary care 	<ul style="list-style-type: none"> • This systematic review studied the efficacy, usability, and feasibility of mobile apps and SMS messages as mHealth interventions supporting self-guided care for physical and mental health • Common outcomes evaluated for mental health mobile health (mHealth) interventions included medication adherence, depression, anxiety and stress • Overall, significant reductions for depression, anxiety, and stress were found and studies that reported usability and feasibility of mHealth interventions showed promising results <p>Source (5/10 McMaster Health Forum AMSTAR rating)</p>	Literature last searched January 2017	None identified

	<ul style="list-style-type: none"> • Mental health system-transformation initiatives underway across Canada <ul style="list-style-type: none"> ○ Types of health-system arrangements being transformed <ul style="list-style-type: none"> ▪ Delivery arrangements ○ Types of sectors involved <ul style="list-style-type: none"> ▪ Primary care 	<ul style="list-style-type: none"> • This review sought to better understand the use of mobile phone text messaging to support mental healthcare delivery • Text messaging has been used to support a range of mental health situations, including substance abuse (31%), schizophrenia (22%), and affective disorders (17%) • Text messaging has been used in various ways, including to provide supportive messages (42%), facilitate self-monitoring procedures (42%), offer information (17%), and provide reminders (14%) • Overall, studies reported positive user attitudes towards text messages and were found to improve treatment adherence and symptom surveillance Source (2/9 McMaster Health Forum AMSTAR rating) 	Literature last searched 25 May 2015	None identified
Rapid reviews	<ul style="list-style-type: none"> • Mental health system-transformation initiatives underway across Canada <ul style="list-style-type: none"> ○ Level of transformation initiatives <ul style="list-style-type: none"> ▪ Provincial/territorial ○ Types of broader human services involved in the transformation <ul style="list-style-type: none"> • Children's and early-years services 	<ul style="list-style-type: none"> • A rapid scoping review was conducted by the Mental Health Commission of Canada (MHCC) to describe the state of policy and practice around performance measurement and to identify opportunities for pan-Canadian population-level performance measurement for the age group of infancy and early childhood • The review found that: <ul style="list-style-type: none"> ○ there is a solid knowledge base about the associations between mental health-related states, behaviours, and adversity in the infancy and early childhood period ○ provincial and territorial mental health policy recognize the importance of mental health, both for the infancy and early-childhood age group, and performance measurement, however only a minority of jurisdictions have current and specific child and youth mental health policies, and especially those that include Indigenous perspectives ○ there are several data-related advances and comprehensive initiatives in child health and 	Published 6 July 2021	Age (e.g., children and youth)

		<p>well-being in Canada, which have provided capacities, potentials, and opportunities for the progression of performance measurement in child and youth mental health and well-being, however these efforts are fragmented and there are very few instances of collaboration across Canada</p> <ul style="list-style-type: none"> ○ there is a need for a comprehensive performance-measurement framework for child and youth mental health and well-being. • The review recommended: <ul style="list-style-type: none"> ○ a collaborative pan-Canadian performance measurement framework for child and youth mental health and well-being ○ new data collection, through either national surveys and/or a longitudinal cohort study ○ a collaborative pan-Canadian performance measurement system, including a focus on advocacy, research, practice, and policy to improve the mental health and well-being of all Canadian children <p>Source</p>		
Non-systematic reviews	No non-systematic reviews identified			
Protocols for reviews that are already underway	No protocols for reviews that are already underway identified			
Titles and questions for reviews being planned	No titles and questions for reviews being planned identified			
Single studies	Single studies about mental health system-transformation initiatives were not considered given the availability of relevant systematic reviews			

Appendix 4: Documents excluded at the final stages of reviewing

Type of document	Hyperlinked title
Guidelines	None identified
Full systematic reviews	None identified
Rapid reviews	None identified
Non-systematic reviews	None identified
Protocols for reviews that are already underway	None identified
Titles and questions for reviews being planned	None identified
Single studies	Attention Deficit Hyperactivity Disorder symptoms, comorbidities, substance use, and social outcomes among men and women in a Canadian sample Concurrent disorders and health care utilization among homeless and vulnerably housed persons in Canada Depression in Korean immigrants in Canada - Method of the study and prevalence of depression Depression in Korean immigrants in Canada - Correlates of gender, work, and marriage Health and well-being of trans and non-binary participants in a community-based survey of gay, bisexual, and queer men, and non-binary and Two-Spirit people across Canada Identification of suicidal ideation in the Canadian Community Health Survey mental health component using deep learning Is mental health in the Canadian population changing over time? Lifetime experience of multiple common mental disorders and 19-year mortality: Results from a Canadian population-based cohort Major Depression prevalence increases with latitude in Canada Medical student psychological distress and mental illness relative to the general population: A Canadian cross-sectional survey Mentoring relationships and the mental health of Aboriginal youth in Canada Migration and social determinants of mental health: Results from the Canadian Health Measures Survey Panic disorder in later life: Results from a national survey of Canadians Prevalence and correlates of chronic depression in the Canadian community health survey: Mental health and well-being Prevalence and correlates of depression among Black individuals in Canada: The major role of everyday racial discrimination Prevalence and predictors of depression in elderly Canadians: The Canadian Study of Health and Aging Self-rated mental health among sexual health service clients during the first months of the COVID-19 pandemic, British Columbia, Canada Suicide related ideation and behaviour among Canadian gay and bisexual men: A syndemic analysis The impact of the novel coronavirus disease (COVID-19) pandemic on drug overdose-related deaths in the United States and Canada: A systematic review of observational studies and analysis of public health surveillance data The Second National Canadian Homeless Youth Survey: Mental health and addiction findings: La Deuxième Enquête Nationale auprès des Jeunes Sans Abri: Résultats en matière de santé Mentale et de Toxicomanie Trends in suicidal behaviour and use of mental health services in Canadian military and civilian populations

	Trauma and suicide behaviour histories among a Canadian Indigenous population: An empirical exploration of the potential role of Canada's residential school system
Other types of documents	COVID-19 and early childhood mental health: Fostering systems change and resilience policy brief

Appendix 5: Broad system-transformation initiatives in Canadian provinces and territories

Province/territory	Summary of broad system-transformation initiatives underway
Pan-Canadian	<ul style="list-style-type: none"> From 2000 to 2006, the Government of Canada committed \$800 million to the Primary Health Care Transition Fund (PHCTF), which supported provinces and territories in their efforts to reform the primary health system by adopting a teams approach to primary-health service provision and coordination, which include primary mental health service providers <ul style="list-style-type: none"> While the fund has been allocated, many jurisdictions continue to redesign primary-care services around a teams-based delivery approach As part of the Safe Restart Agreement, the government pledged \$50 million to bolster distress centres <ul style="list-style-type: none"> On 11 June 2021, the Ministry of health announced a \$9,275,000 investment to support 57 distress centres in Canada through the Public Health Agency of Canada, and on 25 April 2022, an additional \$3,775,000 investment to support the Centre for Addiction and Mental Health (CAMH) and 13 distress centres in Canada was announced A particular emphasis was placed on supporting the needs of key populations, including older adults, youth, parents, LGBTQ2+ populations, First Nations, Inuit and Métis people, first responders, healthcare providers, racially and linguistically diverse groups, and people with disabilities
British Columbia	<ul style="list-style-type: none"> The government of British Columbia launched a Primary Care Strategy to deliver faster and improved access to healthcare across the province, which includes the addition of mental health and substance-use professionals to primary-care teams
Alberta	<ul style="list-style-type: none"> Alberta primary health services are largely provided through Primary Care Networks, which include mental health therapists
Saskatchewan	<ul style="list-style-type: none"> Saskatchewan's efforts to improve primary care involves coordinating service delivery through a team of primary-care professionals, which include mental health and addictions counsellors
Manitoba	<ul style="list-style-type: none"> Manitoba's Clinical & Preventative Services Plan outlines the plan to reconfigure all services in a provincial context that leverages virtual patient and care supports and primary-care teams that coordinate care <ul style="list-style-type: none"> Primary-care teams bring together various health professional groups, including mental health and addiction service providers The plan integrates other services such as municipal services, housing, education and social services
Ontario	<ul style="list-style-type: none"> The Digital First for Health strategy was conceptualized in 2019 and has been accelerated in response to the COVID-19 pandemic. This strategy aims to set clear targets at a population level for demonstrated use of virtual care, remove compensation-related barriers to virtual care for providers, integrate virtual care with provincial and local healthcare agencies, and modernize and connect provincial supports for navigation and access In response to the pandemic, a range of digital tools were deployed, including virtual care through the implementation of temporary OHIP billing codes, supporting the sign-up of physicians for virtual tools, investing in regional virtual-care solutions through Ontario Health's leadership, giving patients online, real-time access to COVID-19 lab test results, and leveraging Ontario.ca to provide information and support Ontarians in making self-assessments and seeking additional care

	<ul style="list-style-type: none"> • Additionally, virtual-care initiatives implemented in response to the pandemic include ensuring continued access to safe and effective care, supporting population-health management, triaging patients virtually, directing patients to reliable health information and self-assessment tools, and allowing programs that existed prior to COVID-19 to continue with minimal impact • This strategy also aims to support Ontario Health Teams' investments in innovating virtual-care models to achieve a sustainable and integrated health system and improve patient experience and access to care for Ontarians • Initiatives to advance provincial virtual-visit solutions standards and the verification of vendor technologies aim to ensure patient privacy, improve patient access to and choice of virtual services, and facilitate the exchange of patient information • Furthermore, an investment will be made over 2021-22 towards virtual urgent care and virtual surgical care. These initiatives aim to address low-acuity urgent issues virtually, support underserved populations, reduce hospital wait times and surgery-related service backlogs, and improve patient experience and post-surgery recovery • This strategy involves collaboration with Pan-Canadian health organizations, particularly Canada Health Infoway to support funding and the development of standards, programs and policies
Québec	<ul style="list-style-type: none"> • None identified
New Brunswick	<ul style="list-style-type: none"> • The Stabilizing Health Care: An Urgent Call to Action plan by the Government of New Brunswick aims to address challenges brought about by the COVID-19 pandemic, such as long waiting times, hospital closures and staff shortages • This plan emphasizes team-based care and the integration of public health, primary care and addiction and mental health services • This plan includes five action areas which include improving access to primary healthcare, access to surgery, access to addiction and mental health services, creating a connected system, and supporting seniors to age in place • Since 2019, the first addiction and mental health walk-in service opened and provided care to 162 citizens without appointments in the first six weeks of operation; the current plan aims to build off of this prior success • To improve access to addiction and mental health services, over the next 24 months a number of innovations will be implemented • Firstly, walk in services and overdose prevention services will be implemented in late 2021 and early 2022 • In the first quarter of 2022-23, additional beds will be added for individuals who need treatment for mental illness and substance-use disorders, a project to prevent youth substance use will be launched, the mobile crisis unit will be expanded, and online mental health services will be further promoted as a timely alternative to traditional services • In the second and third quarters of 2022-23, a new provincial phone crisis line will be established, young people with complex needs in therapeutic foster homes and group homes will have access to a clinical consultation team, and mental health staff will begin working in emergency departments • The enablers to the successful implementation of this plan are anticipated to be people, technology, funding and governance
Nova Scotia	<ul style="list-style-type: none"> • The Nova Scotia Action for Health plan aims to establish a new relationship between the healthcare system, providers, patients, communities and partners to address the root causes of poor health and to avoid unnecessary hospital visits <ul style="list-style-type: none"> ○ This plan includes six core solutions and improving diversity and equity for Indigenous people, African Nova Scotians, racialized communities, immigrants, people with disabilities, LGBTQ+ and other equity-seeking populations • A mental health resource for First Responders and the addition of two permanent addictions and mental health clinical assistants was established as part of the solution of becoming a magnet for health providers

	<ul style="list-style-type: none"> • Mental health services will be integrated into the virtual-care program to improve access to appropriate care for Nova Scotians • Mental health training and education will be provided to health providers to increase professional development and practice supports • To improve coordination and collaboration across the health system, mental health and addiction services will continue to be integrated in primary healthcare and in emergency departments; additionally, a three-digit mental health crisis phone line will be established • To address social determinants of health and the learnings from the COVID-19 pandemic, a Mi'kmaq Mental Health and Addictions Strategy and the Eskasoni Crisis and Referral Centre were established • To improve the overall health and well-being of Nova Scotians, the Office of Addictions and Mental Health was established. Additionally, New Recovery Support Hubs and an acute mental health day hospital were established <ul style="list-style-type: none"> ○ Investments have also been made in mental health peer-support training for youth ○ Finally, gaps in access to care will continue to be addressed through the development of a workforce strategy, harm-reduction programs, universal addictions and mental health coverage, support lines and targeted solutions for people facing the greatest barriers to accessing mental health and addictions services
Prince Edward Island	<ul style="list-style-type: none"> • The Advancing virtual care in PEI plan focuses on increasing the provision of virtual healthcare through Maple and Zoom <ul style="list-style-type: none"> ○ This initiative began in April 2020 to limit the spread of COVID-19, but has also helped to reduce systemic barriers to accessing healthcare for individuals with disabilities and mobility challenges • Specific objectives of this plan include streamlining patient experience, obtaining accurate reporting on service usage and quality, providing a platform for specialty video visits from out-of-province providers, consolidating multiple platforms to streamline processes, ensuring guidelines for tools to use, and improving support services <ul style="list-style-type: none"> ○ Additionally, collaboration with pan-Canadian health organizations, such as Canada Health Infoway will be continued. • The objective of improving secure patient-provider messaging will increase convenience for Islanders, reduce unnecessary appointments and in-person visits, and minimize adverse productivity impacts to Islanders • This plan also aims to improve equity of access by identifying socio-demographic groups which are currently underserved by virtual care, identifying key barriers to access for those groups, and addressing those barriers • The expected results of this plan include an increase in total encounters enabled by video visits, broader adoption by patients and providers, increased patient and provider satisfaction, and the establishment of a clear path forward
Newfoundland and Labrador	<ul style="list-style-type: none"> • The Our province. Our health. Our future is a 10-year transformation plan to address health challenges experienced by citizens of Newfoundland and Labrador compared to the rest of the country. In particular, the rate of children with complex medical care needs, including mental health needs, is 53% higher than in the rest of Canada • This report found that although Newfoundland and Labrador performed the least well out of the 10 provinces, the per capita spending in health was the highest among the provinces • Seven areas are identified in this report to pose risks on the health of people, including lower health outcomes, mental health concerns, massive demographic change, concerns about sustainability, the current fiscal challenge, the climate emergency, and the impact of COVID-19 • The calls to action in this report regarding mental health include ensuring the integration of family physicians, nurse practitioners, nurses and allied health professions including mental health providers, to improve the coordination of care, improving access to mental health services in community hospitals and training practitioners to demonstrate competencies in age-related health factors including mental health

Yukon	<ul style="list-style-type: none">• None identified
Northwest Territories	<ul style="list-style-type: none">• None identified
Nunavut	<ul style="list-style-type: none">• None identified