Rapid Synthesis

Identifying Impacts of Approaches to Address Stigma Associated with Substance Use

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Rapid Synthesis:
Identifying Impacts of Approaches to Address Stigma Associated with Substance use
30-day response

20 March 2020

McMaster Health Forum

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

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Timeline

Rapid syntheses can be requested in a three-, 10-, 30-, 60- or 90-business-day timeframe. This synthesis was prepared over a 30-business-day timeframe. An overview of what can be provided and what cannot be provided in each of the different timelines is provided on McMaster Health Forum's Rapid Response program web page (www.mcmasterforum.org/find-evidence/rapid-response).

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Conflict of interest

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

Merit review

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

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KEY MESSAGES

Question

- What are the impacts of approaches to address stigma associated with substance use in health systems?

Why the issue is important

- Concerns about substance use in Canada are significant, with nearly half of Canadians reporting that they have used an illicit drug at some point in their lifetime, and 21% of this population having met the criteria for substance-use disorder.
- Most illicit drug-related deaths in Canada are attributed to opioid use, which causes 12 deaths per 100,000 people in Canada, with the highest death rates in British Columbia followed by Alberta.
- Individuals experiencing ongoing substance-use disorders have worse health and social outcomes than the general population, and often have greater healthcare needs involving different types of providers working across different sectors, including community-based care and primary care, specialty care, long-term care, rehabilitation and public health.
- There is a substantial body of evidence documenting the impact of stigma faced by people who use substances, with individuals who use substances having been found to experience three main types of stigma: 1) self-stigma (people who use substances internalizing the negative attitudes towards themselves); 2) social stigma (social disapproval of personal characteristics that differ from cultural norms); and 3) structural stigma (stigma from people who provide public services such as medical students, first responders, healthcare professionals, and government representatives).
- The objective of this rapid synthesis, as requested by British Columbia's Ministry of Health, is to identify the impacts of approaches to address the stigma associated with substance use.

What we found

- We identified 23 systematic reviews relevant to the question, of which, three explicitly focused on approaches to address stigma related to substance use. Other systematic reviews focused on mental health stigma (n=14), HIV stigma (n=4) and a broad spectrum of health-related stigmas (n=2). We also identified 11 primary studies from our search for Canadian literature in PubMed.
- The approaches identified from the small number of reviews and studies which aimed to address stigma associated with substance use are organized by interventions to address self-stigma, social stigma, and structural stigma. Interventions aimed at addressing self-stigma included therapeutic interventions, skills and vocational training, medical interventions to remove physical marks, telehealth communication for easier access, promoting more appropriate language use, and adopting a harm-reduction approach. The interventions aimed at addressing social stigma included public educational strategies and motivational interviewing. Finally, interventions aimed at addressing structural stigma encompassed specialized provider training, direct engagement with stigmatized group, and altering organizational protocols to improve privacy and confidentiality.
- The approaches identified from the reviews and studies that focused on stigma for other health conditions often included the interventions identified above, as well as additional insights within each of the focus areas. For addressing self-stigma, approaches included: 1) using communication technology; 2) using community-participation interventions; 3) building culturally competent care at the point of service; 4) providing educational strategies; 5) empowering individuals; 6) using therapeutic interventions; 7) providing treatment adherence support; and 8) building trust with provider and service staff.
- For social stigma, approaches included: 1) engaging the stigmatized group; 2) providing educational strategies; 3) making grade-school curriculum changes; and 4) using social marketing/public awareness campaigns.
- Finally, to address structural stigma, approaches included: 1) altering or changing care protocols or policies; 2) engaging local champions; 3) engaging people with lived experience; 4) facilitating longer-term personal commitments; 5) providing education and information; 6) providing skills training; and 7) sharing the responsibility of care during cases of complexity.
- The impacts of each of these approaches varied significantly across the literature and is expanded on below.

QUESTION

What are the impacts of approaches to address stigma associated with substance use in health systems?

WHY THE ISSUE IS IMPORTANT

There is evidence that substance use is on the rise in Canada.(1) In 2012, it was determined that 18.1% of Canadians met the criteria for alcohol dependence at some time in their lives, with this number rising to 19% in 2016.(2) It is also estimated that approximately 21% of the Canadian population, representing approximately six million people, will meet the criteria for substance-use disorder in their lifetime.(3) As is the case in many other countries, most illicit drug-related deaths in Canada can be attributed to opioid use, which caused more than 11,500 deaths from January 2016 to December 2018.(4) In addition, substance use carried an estimated total economic impact of $46 billion in 2017, which equates to approximately $1,258 for each Canadian, which was up from $43.5 billion in 2015 (a 5.4% increase), and most of the costs manifest through lost productivity, healthcare expenses and criminal justice.(5)

Individuals experiencing ongoing substance-related issues have worse health and social outcomes than the general population, and often have greater healthcare needs.(6) People who use substances may require access to care and support from health and social systems, especially given the frequent comorbidity of substance use and mental health conditions.(7; 8) This can include many types of providers (e.g., medical, mental health, addictions treatment, and/or social workers) working across different sectors including community-based care (e.g., treatment services, as well as social supports such as housing, employment services, and court-diversion programs),(9) primary care (e.g., to identify substance-use problems among patients, while providing appropriate referrals to specialized services and brief interventions),(10) specialty care (e.g., for specialized and/or emergency treatment), long-term care, rehabilitation and public health. In addition, there is a substantial body of evidence documenting the substantial extent and impact of structural stigma and criminalization faced by people who use substances.(11) Indeed, substance use faces more social disapproval and discrimination than any other health condition.(12) The predominately criminal-justice-based approach that associates people who use substances with the criminal-justice system does not address underlying health and social issues, and further perpetuates barriers to help-seeking behaviours.(13) A systematic review found that individuals who use substances experience three main types of stigma: 1) social stigma, 2) structural stigma, and 3) self-stigma.(14) Social stigma refers to severe social disapproval of personal characteristics or beliefs that differ from cultural norms, which often manifest through negative stereotypes and societal reactions endorsed towards the stigmatized group.(15) Social stigma can result in feelings of shame and isolation, which can cause people to hide their substance use, to use alone, and to be less likely to seek out help or treatment and use harm-reduction services. In addition, it may have a negative impact on the ability of individuals to have their social needs met

Box 1: Background to the rapid synthesis

This rapid synthesis mobilizes both global and local research evidence about a question submitted to the McMaster Health Forum's Rapid Response program. Whenever possible, the rapid synthesis summarizes research evidence drawn from systematic reviews of the research literature and occasionally from single research studies. A systematic review is a summary of studies addressing a clearly formulated question that uses systematic and explicit methods to identify, select and appraise research studies, and to synthesize data from the included studies. The rapid synthesis does not contain recommendations, which would have required the authors to make judgments based on their personal values and preferences.

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This rapid synthesis was prepared over a 30-business-day timeframe and involved four steps:

1) submission of a question from a policymaker or stakeholder (in this case, the British Columbia Ministry of Health);
2) identifying, selecting, appraising and synthesizing relevant research evidence about the question;
3) drafting the rapid synthesis in such a way as to present concisely and in accessible language the research evidence; and
4) finalizing the rapid synthesis based on the input of at least two merit reviewers.

(e.g., housing and employment), while influencing public support for evidence-based strategies such as supervised consumption sites.(13)

Structural stigma refers to stigma from people who provide public services such as medical students, law enforcement, housing workers, first responders, healthcare professionals, and government representatives.(16) It should be noted that in addition to stigma experienced at the level of service provision, 'structural determinants' also relate to the broader system and policy determinants that drive practice. This type of stigma is experienced by people with substance-use disorders in many forms, and often restricts their rights and opportunities.(14) For example, a national U.S. survey of people with substance-use disorders reported barriers to treatment, such as lack of insurance and difficulties obtaining insurance, the cost of treatment, and lack of access to treatment programs.(17) It also described fears of discrimination at work and previous experiences of being denied career advancement opportunities.(17)

Lastly, self-stigma occurs when people who use substances internalize the negative stereotypes and structural stigma directed towards them, and has been found to be a distinct construct from social and structural stigma.(18; 19) One study found evidence of a stepwise process of self-stigmatization in individuals with alcohol dependence, starting with awareness of negative societal stereotypes, followed by agreement with these stereotypes, then self-application of these stereotypes, which in turn leads to lower self-esteem and self-efficacy.(20) As social, structural and self-stigma are interconnected and influence each other, it is understandable why an intervention targeted at one type of stigma may have a subsequent impact on other forms of stigma.

Stigma, manifested in one or more of the three ways outlined above, has various negative effects that compound the negative health and social outcomes already associated with substance use.(21) For example, it has been found that access to evidence-based treatments for substance-use disorders remains a crucial concern in Canada.(22) Nationally, it has been found that gaps in services exist for people with substance-use problems and mental health conditions, with two-thirds of people with substance-use disorders having been found to not receive any care.(23) In addition, almost 50% of participants surveyed in Alberta who met criteria for a past-year addiction or mental health problems reported unmet health and social care needs.(22) Such under-utilization has been attributed to stigmatizing experiences.(24) In addition, even when individuals with substance-use problems do seek and access health or social care, the care received may be of lower quality than that provided to other patients.(25) One study found that while high remission rates for alcohol dependence have been found in population-based studies, many health professionals view alcoholism as incurable while others see it as a chronic and relapsing condition.(20) In contrast, emergency-room healthcare staff who reported having skills and knowledge in treating these disorders held more positive views about the potential of recovery.(17) Finally, the perception of internalization of stigma by individuals with substance-use disorders not only exerts negative impact on their self-esteem and self-efficacy, but can also serve as a barrier to treatment when it leads to the loss of self-respect, and questioning the possibility and purpose of recovery.(26)

The social, structural and self-stigma experienced by individuals living with substance-use disorders are significant barriers to achieving positive health and social outcomes for this population. Given the pervasive nature of the problem, coupled with the importance of addressing such stigma, this rapid synthesis was requested by the British Columbia Ministry of Mental Health to consider strategies for addressing stigma associated with substance use.

WHAT WE FOUND

From our searches described in Box 2, we identified 23 systematic reviews relevant to the question, of which three reviews explicitly focused on approaches to address stigma related to substance use, and two considered approaches that addressed a broad spectrum of health-related stigmas (which sometimes encompassed substance-use disorders). The three reviews that explicitly focused on approaches to address stigma related to substance use included 28, 13, and 151 single studies, respectively.(30; 12; 26) We also included 18 systematic reviews focused on addressing stigma for different conditions, but from which insights can likely be drawn given the interconnectedness with substance use. These included 14 reviews focused on stigma related to mental health conditions and four focused on HIV-related stigma. While a limited number of systematic reviews explicitly addressed stigma related to substance use, we found that the reviews addressing mental health or HIV used comparable approaches and offered further detail about the features and impacts of approaches that could be used. In addition to the systematic reviews, we also identified 13 primary studies from our search for Canadian literature in PubMed.

We provide details about the features and impacts of each intervention that we identified in Table 1, for those focused on addressing stigma related to substance use. In addition, details about each included systematic review and primary study are provided in Appendices 1 and 2, respectively.

Box 2: Identification, selection and synthesis of research evidence

We identified research evidence (systematic reviews and primary studies) by searching (in February 2020) Health Systems Evidence (www.healthsystemsevidence.org), Health Evidence (www.healthevidence.org) and PubMed. In Health Systems Evidence and Health Evidence we searched using the term 'stigma' in the open search and without filters. In PubMed we searched for: stigma AND ("drug use" OR "substance use" or "substance abuse" or "drug abuse" or addiction*) AND Canada.

The results from the searches were assessed by one reviewer for inclusion. A document was included if it fit within the scope of the questions posed for the rapid synthesis.

For each systematic review we included in the synthesis, we documented the focus of the review, key findings, last year the literature was searched (as an indicator of how recently it was conducted), methodological quality using the AMSTAR quality appraisal tool (see the Appendix for more detail), and the proportion of the included studies that were conducted in Canada. We classify reviews of high, medium and low methodological quality to have AMSTAR scores between 8-11, 4-7 and 0-3 respectively. For primary research (if included), we documented the focus of the study, methods used, a description of the sample, the jurisdiction(s) studied, key features of the intervention, and key findings. We then used this extracted information to develop a synthesis of the key findings from the included reviews and primary studies.

Results focused on approaches addressing stigma related to substance use

Although a small number of reviews and studies explicitly examined approaches that had an impact on stigma related to substance use, approaches fell into three focus areas; self-stigma, social-stigma, and structural stigma. Within these focus areas, different types of interventions were employed to achieve a range of impacts on stigma. The approaches are summarized below, with additional details provided in Table 1. The impacts of successfully addressing self-stigma were often assessed through improvements in personal shame, internal stigma, views of society, alienation and recovery. For social and structural stigma, positive outcomes often related to improved attitudes towards people with substance-use disorders with associated decreases in dislike or judgmental feelings. The measurements used to assess these varied considerably, which limited cross comparisons. It should also be noted that although the reviews were of a medium methodological quality, a limited number of studies included in these reviews assessed stigma outcomes beyond the immediate post-intervention period. As a result, the medium- to long-term effects of interventions targeting stigma related to substance use remain largely unknown, which is a limitation in examining impact.

These approaches are summarized below, with additional details about each intervention provided in Table 1.

Approaches addressing self-stigma associated with substance use

One medium-quality review identified that therapeutic strategies, skills and vocational training, and medical interventions were potentially effective for addressing self-stigma.(14) Regarding therapeutic strategies Acceptance and Commitment Therapy (ACT) groups were found to be effective for reducing self-stigma, specifically through decreasing shame and internalized stigma. Skills development and vocational training aided patients in achieving more positive views of society and experiencing less feelings of social alienation. Medical interventions to physically remove needle scars were anecdotally suggested by medical professionals to be helpful in rehabilitation and social adjustment, however no comparative results were provided in the included studies. Although this review identified approaches that addressed self-stigma, each approach only contained evidence from a single study and different measures of self-stigma were used, including standardized measures such as Connyers & Farmar's Self Image Scale, Sroles' Anomie scale, Internalized Stigma of Substance Abuse, Internalized Shame Scale, and Bogardus Social Distance Scale, as well as providers' anecdotal observations. Such measures aimed to assess outcomes such as internalized stigma, shame, perceived stigma, stigma-related rejection, self-image, social distance, and attitudes towards society. Furthermore, the review suggested that none of the included studies were deemed to be of high quality.

A different medium-quality review examined the effectiveness of telehealth interventions for people with substance-use disorders.(27) The included interventions aimed to distribute healthcare information through internet communication, computer programs or telephone interaction, as opposed to conventional in-person delivery of care. The review suggested that conventional in-person interventions are often inhibited by the stigma individuals feel in accessing traditional services, and that telehealth presents a viable alternative to make services more openly available for those in need. The review concluded that telehealth interventions are efficacious for people using alcohol and cigarettes, but that effectiveness for people who use illicit drugs and people who gamble was uncertain. Internet programs were more successful if individualized and delivered more frequently, and both internet and computer interventions typically targeted students. The evidence related to the use of phone and text messaging services was limited. Although the review suggested that telehealth approaches may be just as effective as conventional services, the outcome measures were often unclear and appeared to not explicitly assess stigma-related outcomes.

Finally, one primary study assessed the impact of stigmatizing versus encouraging language use surrounding substance-use disorders.(28) The study suggested that language choice often influenced policy, diagnosis, help-seeking behaviour, and recovery. People in recovery suggested that person-first language that puts the person before the disorder was ideal, and was suggested to reduce stigma and empower those in the substance-use disorder and recovery community. Examples of person-first language identified in the study include "person with a substance use disorder", "person who uses drugs" and "person in recovery".

Approaches addressing social stigma associated with substance use

To address the social stigma toward people who use substances, one medium-quality review suggested that educational strategies and motivational interviewing directed towards the general public could help address negative attitudes towards people who use substances.(14) Regarding educational strategies, didactic fact sheets as well as leaflets depicting positive stories of people with substance-use disorders in recovery were identified as the most promising. Although attitudes were not significantly changed among those who received general educational fact sheets, communicating positive stories significantly reduced stigmatized attitudes among the public towards those with heroin dependence. Motivational interviews with the general public were also found to help people resolve stigmatizing attitudes towards people with alcohol dependence by guiding the public to find the motivation to change their views. As noted above in relation to this systematic review, there was a limited number of studies included in this review which limited cross comparison of interventions.

Approaches addressing structural stigma associated with substance use

Finally, regarding structural stigma from health professionals and/or other professional organizations, delivering specialized provider education and incorporating contact with the stigmatized group into training were two predominant approaches identified in the literature. For example, one medium-quality review found that provider-education interventions tended to be targeted at medical students and included a range of techniques such as formal education, critical self-reflection, acceptance and commitment training, and psycho-education.(14) Across structured-education programs, significant decreases in dislike and discomfort with the stigmatized group were found, with corresponding increases in feelings of responsibility towards patients who use substances. More specifically, self-reflection techniques were found to improve understanding and clinical skill, while acceptance and commitment training significantly decreased stigmatizing attitudes among counsellors after long-term follow-up. Two primary studies (29; 30) assessed the inclusion of online-based training courses into the education for healthcare workers. The first study used the online course to incorporate peer activities, discussion forums, local mentorship, and cases or best practice into training, and found that stigma toward people with tobacco-use disorder and other substance-use disorders decreased significantly among those who completed the course.(30) The second study reported on online courses that were created to highlight stigmatizing attitudes, show videos of positive recovery and link viewers to resources, and found improvements in student attitudes towards individuals with alcohol and opioid-use disorders.(29)

Supporting healthcare professionals' experience with stigmatized groups through direct contact during training often supplemented educational approaches, and contributed to decreased dislike, higher levels of comfort, and increased responsibility.(14) A medium-quality systematic review examined the impact of health professionals' attitudes towards patients with substance-use disorders, and found that the attitudes of health professionals were generally negative.(31) However, the review also found that professionals who had contact with the stigmatized group, whether through work experience in addiction services or personal experiences with substance-use disorders, had more positive views towards these patients than their colleagues.

Although education and contact-based training were approaches targeted at professionals as a means to reduce structural stigma, the literature also points to addressing system-level communication protocols as being essential. A medium-quality review that examined professionals' attitudes towards patients with substance-use disorders suggested that contextual organization factors often contributed to providers' negative feelings, specifically around organizational policy, time restraints, and role support by colleagues.(31) A primary study which aimed to identify the structural factors contributing to the stigmatization of people who use illicit drugs in hospital emergency departments found that the way in which the details of a patient's drug use were communicated was an important source of stigmatization.(32) Systems which pre-identified "drug seeking" people, departments which lacked spatial privacy, and staff who did not introduce patients by descriptions of who they were before including details about issues related to their substance use, were all identified as contributing to structural stigma.

Table 1: Overview of findings about approaches for addressing stigma associated with substance use

Focus of approach	Type of approach	Features of the approach	Summary of impact
Self-stigma	Therapeutic interventions (14)	• One medium-quality review found that therapeutic interventions such as Acceptance and Commitment Therapy (ACT) groups may be effective in reducing self-stigma.(14)	• Group-based ACT resulted in significantly decreased shame and internalized stigma among people with substance-use disorders. • Perceived stigma and stigma-related rejection were unchanged.(14)
	Skills and vocational training (14)	• The same medium-quality review as above suggested that skills training and vocational counselling may also help reduce self-stigma.(14)	• Although no significant changes in self-image were found, the intervention resulted in significantly improved views of society and decreased feelings of social alienation.(14)
	Medical intervention (14)	• This medium-quality review also identified a non-comparative study that suggested that surgically removing needle track-marks may be beneficial for injection-drug users in recovery.(14)	• Based only on anecdotal surgical notes, it was suggested that this medical intervention may be helpful in aiding rehabilitation and social adjustment.(14)
	Telehealth communication (27)	• One medium-quality review examined telehealth interventions that distributed healthcare information to people with substance-use disorders through the internet, computer programs and phone communication.(27)	• The review suggested that conventional interventions are often inhibited by the stigma involved in accessing traditional services, and that telehealth presents a viable alternative.(27) • Internet programs were often found to be more successful if individualized and delivered more frequently, and were typically targeted at students. Phone call and text messaging services were found to have less evidence. • The type of effectiveness measures included in the review were often unclear.
	Appropriate language use (28)	• One primary study assessed the impact of stigmatizing versus encouraging language regarding substance-use disorders.(28)	• The study suggested that language choice often influenced policy, diagnosis, and help-seeking behaviour, and recovery.(28) • Regarding self-stigma, people in recovery cited words like "crackhead", "junkie", and "addicts" as the most stigmatizing terms, and family members and health professionals identified many of the same terms as being stigmatizing. • Person-first language that put the person before the disorder was identified as more empowering.
	Harm reduction approach (32; 33)	• Two studies examined the use of a harm-reduction approach, which involved tracking and direct access to support, as a way to overcome stigma.(32; 33)	• One harm-reduction approach destigmatized the access to services and healthcare for women involved in sex work,(32) while the other intervention focused on shifting primary health clinic aims from "fixing people" who experience substance use to reducing harm.(33) Both of these interventions were found to reduce stigma and judgment.
Social stigma	Educational strategies (14)	• Dissemination of educational materials (e.g., through fact sheets or leaflets depicting positive stories of people with substance-use disorders in recovery) was	• Attitudes towards people with substance-use disorders (alcohol-use disorders in this case) were not significantly different between those who received educational fact sheets and those who did not.(14)

Focus of approach	Type of approach	Features of the approach	Summary of impact
from the public, peers and/or family		suggested as a possible strategy to reduce social stigma.(14)	• However, educational interventions that communicated positive stories significantly reduced stigmatized attitudes among the general public towards heroin dependence.
	Motivational interviewing (14)	• Motivational interviews with the general public were suggested as a method to help people resolve stigmatizing attitudes towards people with alcohol dependence and find the motivation to change their views.(14)	• Brief motivational interviews were found to moderately decrease stigmatizing attitudes towards people with alcohol dependence as measured through a standardized questionnaire.(14)
Structural stigma from health professionals and/or other professional organizations	Provider education and training (14; 29; 30)	• A medium-quality review (14) suggested that education interventions used to address structural stigma were often targeted at medical students, and included a range of techniques such as targeted formal education, clinical experience, critical self-reflection, acceptance and commitment training, and psycho-education. • Two primary studies (29; 30) incorporated online-based training courses into their education of healthcare workers to address structural stigma. One study described courses as incorporating peer activities, discussion forums, local mentorship and cases or best practice. The other study created online courses that aimed to illuminate professionals' negative attitudes, show videos of positive recovery, and link viewers to resources.	• The medium-quality review found that incorporating reflection techniques into training increased understanding and improved clinical skills when working with people who have substance-use disorders.(14) • Significant decreases in dislike and discomfort were found after the provision of structured drug- and alcohol-education programs, with corresponding increases in feelings of responsibility. Acceptance and commitment training significantly decreased stigmatizing attitudes among counsellors after a 90-day follow-up. • The first of two primary studies (30) that examined online courses for healthcare workers found that stigma toward people with tobacco-use disorder and other substance-use disorders decreased significantly among those who completed the course. Although course completers generally preferred the online delivery, stigma toward those with alcohol-use disorders did not change. • The second primary study (29) found improvements in medical students' attitudes towards individuals with alcohol- and opioid-use disorders after six months of the online course, however these shifts were larger for opioid use than alcohol use.
	Contact with stigmatized group (14; 31)	• A medium-quality systematic review (31) examined the impact of health professionals' attitudes towards patients with substance-use disorders, specifically noting the impact of health professionals' prior experience with the stigmatized group. • A medium-quality review (14) which identified interventions aimed to reduce structural stigma found that medical-training programs which specifically emphasized contact with the stigmatized group were often effective at reducing stigma.	• The medium-quality review (31) found that the attitudes of health professionals were generally negative. Health personnel were often less motivated, did not feel responsible, and had greater stigma towards these patients. Perceptions of danger, manipulation, and stress were key contributors. However, professionals who had contact with the stigmatized group through work experience in addiction services or other personal experiences with substance-use disorders, had more positive views of these patients than their colleagues. • Although the specific details of the contact-based interventions were not detailed in the medium-quality review,(14) they were often provided in combination with education and resulted in positive impacts in structural-

Focus of approach	Type of approach	Features of the approach	Summary of impact
			stigma outcomes, such as decreased dislike towards the stigmatized group, higher levels of comfort, and increased responsibility.
	Organization communication protocols and improved privacy and confidentiality (31; 32)	• A medium-quality review (31) examined health professionals' attitudes towards patients with substance-use disorders. • A primary study identified structural factors contributing to the stigmatization of people in hospital emergency departments who are users of illicit drugs and have hepatitis C (HCV) positive in order to identify approaches to reduce stigma.(32)	• The medium-quality systematic review suggested that organizational policy, time restraints, and role support by colleagues all influenced the level of therapeutic commitment of health professionals.(31) In addition, the review noted that many health professionals were poorly motivated, held the view that people who use substances should be exclusively cared for by addiction specialists, or had greater stigma towards people who use substances than those with other mental health conditions. Reasons for such attitudes included the perception of danger, manipulation, and emotional stress when working with people who use substances. However, the professionals who rejected moral stereotyping reported positive views of patients with substance-use disorders, and those working in addiction services or who had experience with substance use had more positive views of people who use substances than their colleagues. • The primary study found that the way in which the details of a patient's drug use was communicated influenced stigmatization.(32) For example, flagging systems that pre-identify "drug seeking" people, lack of spatial privacy in emergency departments, and staff not introducing patients by descriptions of who they were before briefing on their substance-use disorder were all noted.
	Creating toolkits and guides (34)	• One study aimed to address structural stigma related to sexuality, substance use, and sexually transmitted and blood-borne infections examined through the provision of toolkits and guides (including a self-assessment stigma tool, a service provider discussion guide, a toolkit related to privacy, confidentiality and criminalization, and an organizational assessment tool).(34) The tools were drafted and reviewed by service providers and individuals affected.	• The study found that the vast majority of participants noted increased awareness of various forms of stigma. They also found increased comfort in discussing health issues with clients/patients, awareness of organizational strategies to reduce stigma, and improved ability to integrate workshop learnings into practice.(34)

Results focused on approaches addressing stigma for other health conditions

The systematic reviews that we identified that examine approaches to addressing stigma for different conditions also focus on self-stigma, social stigma and structural stigma, but gave further detail on the components of the interventions studied. An overview of key findings about these approaches are summarized below.

Approaches addressing self- stigma for other health-related issues

We identified eight different approaches from the included systematic reviews and primary studies for addressing self-stigma for health conditions other than substance use: 1) using communication technology; 2) using community-participation interventions; 3) building culturally competent care at the point of service; 4) providing educational strategies; 5) empowering individuals; 6) using therapeutic interventions; 7) providing treatment-adherence support; and 8) building trust with provider and service staff. We provide an overview of key findings related to these interventions in Table 2.

Table 2: Overview of key findings for interventions for addressing self-stigma for other health-related issues

Type of approach	Features of the approach	Summary of impact
Using communication technology provision	• One medium-quality review examined interventions that utilized communication technology in order to provide stigma-reducing mental health literacy education. The communication technology interventions examined include: 1) mental health first aid interventions; 2) filmed social contact about schizophrenia; 3) video-contact intervention about an individual with schizophrenia; 4) video and embodied conversational agent interventions about anorexia; 5) web-pages intervention on depression stigma; 6) three weeks of online information intervention; and 7) PowerPoint presentation about autism.(35)	• Video contact-based interventions, video mental health first aid training, and online information aimed at reducing stigma and debunking myths all had significant results in enhancing mental health literacy and reducing mental health stigma.(35)
Using community-participation interventions	• A community-participation intervention involved several key components, including: 1) engaging community leaders, people living with HIV and their caregivers; 2) providing the community with information about HIV, and increasing community awareness of the costs and benefits of addressing HIV stigma; 3) quality planning with competent staffing, leadership, and resource mobilization; 4) effective management of limited community resources; 5) implementing operating activities such as training youth volunteers, increasing community spiritual gatherings,	• A significant decrease in self-stigma among participants living with HIV/AIDS was found. Reducing self-stigma through community-participation activities was also shown to increase social support between people living with HIV/AIDS, their families, and other community members.(36)

	and developing a community learning centre for HIV; and 6) focusing on sustainable activities and program evaluation. In order to overcome barriers posed by limited resources, this intervention was integrated with a socio-economic intervention.(36)	
Building culturally competent care at the point of service	• Promoting culturally competent care at the point of service as a method to help address stigma experienced during service access was suggested in one review. Interventions described involved provider training and education interventions to better serve culturally and linguistically diverse populations, as well as interventions to improve patient/provider interactions such as a culturally sensitive, multi-level intervention involving an educational video and brochure for patients along with a patient-delivered paper-based reminder for the physician. These interventions could also include training and notices for providers. Furthermore, point-of-service interventions could also be done virtually; this applied to virtual interventions that increased service accessibility for people with disabilities.(37)	• Increasing cultural competency by providing service users with relevant documents to bring to their appointments and conducting training for providers were possible approaches. More research is needed to make conclusions around this intervention's efficacy due to the heterogeneity of the examined populations.(37)
Providing educational strategies	• Educational strategies often involved educating participants about their condition and stigma, as well as its manifestations and effects on health.(25) • Such strategies could include the provision of personalized feedback and could be delivered through didactic lectures, training courses, discussion, or printed educational materials.	• A systematic review found that 24 of the 34 included interventions effectively reduced stigma, with the remaining having mixed results.(25)
Empowering individuals	• Two systematic reviews examined interventions that facilitated individual empowerment through counselling, and encouraging marginalized populations to interact with the formal healthcare system to decrease self-stigma.(25; 37) • Empowerment approaches were identified as a way to foster coping mechanisms to allow individuals to overcome stigma and discrimination,(25) as well as to encourage individuals to engage in care-seeking behaviour by interacting more with the health system.(37) One intervention brought service providers and service users together in a workshop setting that was separate from the clinical facility. The workshops provided users and providers a	• No conclusions around the effectiveness of such approaches in reducing stigma were reached in either review that examined interventions that facilitated individual empowerment to address self-stigma.(25; 37) • One review found that motivation enhancement was only effective at long-term follow-up in terms of improving help-seeking behaviours, which the review identified as possibly being the result of the time needed to apply learned skills into help-seeking decisions.(38)

	chance to share information, increase contact, and challenge HIV-related stigmas.(25) Another intervention aimed to increase receipt of screening for which disparities among people with disabilities, LGBTQ+ people, and racialized people are prominent, or to support patients in medical decision-making.(37) • One review examined goal-oriented motivational enhancement to address self-stigma, particularly for people with or at risk of substance-use disorders and their family members or significant others.(38)	
Using therapeutic interventions	• One systematic review examined a psychotherapy intervention to reduce self-stigma for people living with HIV/AIDS.(36) The four interventions examined utilized different strategies with two using emotional writing disclosure, one using acceptance and commitment group therapy, and one using eight weekly individual cognitive-behavioural therapy sessions.(36) • A different systematic review assessed cognitive-behavioural therapy interventions to improve help seeking for mental health problems in terms of improving attitude, intensions and behaviour. The cognitive-behavioural therapy intervention sought to increase the recognition of signs of mental health problems and perceived need, modification of erroneous beliefs about treatment, and providing information on help-seeking sources.(38) • One review examined various therapeutic interventions including acceptance and commitment therapy, a contextual behavioural intervention, and an educational intervention in reducing stigmatizing attitudes.(39)	• Although these interventions produced mixed results, the review broadly concluded that therapeutic interventions can help reduce self-stigma for those living with HIV/AIDS.(36) • The review found that for individuals who would seek help, most interventions used psycho-educational or cognitive-behavioural strategies to specifically target mental health literacy. Improving literacy included recognizing the signs of mental health problems, modifying dysfunctional beliefs about treatment, and identifying help-seeking resources.(38) • This review suggested that acceptance and mindfulness interventions offer new promise for the reduction of self-stigma.(39)
Providing treatment-adherence support	• A systematic review assessed interventions to support adherence to antiretroviral therapy (ART) treatment as a method to decrease self-stigma among people living with HIV.(36) Nurses, peer-adherence workers, and community health workers that support medication adherence helped patients with ART treatment access and adherence while also providing emotional, informational, nutritional, and financial support.	• Significant decreases in self-stigma were found in three of the four studies included in the review, while the fourth study found increased self-stigma among participants.(36)

Building trust with provider and service staff	• One low-quality systematic review hypothesized that increasing confidentiality and trust between child and adolescent service users and providers could decrease self-stigma and fears of confidentiality breaches, however details of the features and impacts of such approaches were not identified by the review.(40)	• Increasing confidentiality and trust between service providers and service users may decrease stigma. This is because service users may feel shame, stigma, and embarrassment if there is a breach in a provider's confidentiality and others find out they have been seeking help for a mental health problem.(40)

Approaches addressing social stigma for other health-related issues

Several interventions were identified across the included reviews and studies for addressing social stigma, which include: 1) engaging the stigmatized group; 2) providing educational strategies; 3) making school curriculum changes; and 4) using social marketing/public awareness campaigns. We provide an overview of key findings related to these interventions in Table 3.

Table 3: Overview of key findings for interventions for addressing social stigma for other health-related issues

Type of approach	Features of the approach	Summary of impact
Engaging the stigmatized group	• Promoting contact with the stigmatized group, either for healthcare providers or for members of the general public, as an approach to reduce social stigma was addressed in six different systematic reviews.(25; 35; 41-43) • One review examined interventions that involved contact with people living with HIV, including peer-led discussions, people living with HIV being the guest speakers, and the involvement of people living with HIV from program design to delivery.(44)	• Linking healthcare staff to individuals living with the stigmatized condition, either in person or through videos, was found to improve mental health literacy, increase positive attitudes, reduce social distance and reduce stigma.(25; 35; 41-43) • One of these reviews suggested that a key strategy for stigma reduction in healthcare contexts is facilitating contact with the stigmatized group, which aimed to engage members of the stigmatized group in delivering the interventions to develop empathy and breakdown stereotypes. Such approaches involved linking the health-facility staff participants to individuals living with the stigmatized condition, either in person or through videos.(25) • Contact with the stigmatized group through peer-led discussions and inviting people living with HIV as guest speakers did not demonstrate effectiveness in reducing stigma.(44)
Provide educational strategies	• A number of systematic reviews also focused on educational strategies to address social stigma. One review examined two education-delivery methods with one that provided a brief intervention of textual information up to three	• Both strategies resulted in a reduction in stigmatizing attitudes among the public after the intervention.(41) • This review found a small effect on social distance at post-intervention.

Type of approach	Features of the approach	Summary of impact
	pages long, and one that provided longer programming delivered to groups by video.(41) • The same review assessed the effect of psycho-education programs on stigmatizing attitudes among family members of individuals with serious mental health conditions. Psycho-education involved lengthy programs (up to 27 hours in duration), and involved information about schizophrenia and its impact on relationships, as well as advice to family members on how to support their loved ones.(41) • A different systematic review that examined the effectiveness of HIV-related stigma-reduction education programs found that most interventions were delivered in the form of lectures and talks.(44) • Another systematic review specifically examined educational interventions that involved explanations about people with mental health conditions by professionals to reduce stigma.(43) • One review aimed to assess the effectiveness of various video-based educational interventions in reducing stigma of mental health conditions among young people, including videos containing clips from popular movies illustrating myths juxtaposed with documentary videos presenting facts, and documentaries about specific disorders such as schizophrenia.(45) • One review examined various educational stigma-reduction interventions related to mental health conditions such as education programs that relayed the facts and myths of mental health conditions, websites that provided information about depression, associated symptoms, sources of help, treatment and prevention, and interactive learning approaches that covered cognitive, emotional and behavioural aspects of stigma.(39)	Several included studies also compared the effect on stigma from information about several mental health conditions and its attribution to psychosocial or biological factors, and demonstrated lower stigmatizing attitudes when causal explanations focused on biological instead of psychosocial factors. Included studies also investigated the long-term effects of educational interventions, which found a small but significant effect on social distance and stigmatizing attitudes.(41) • Other studies found that there is some evidence that greater endorsement of the "brain disease" model of substance-use disorders (a biological explanatory model) is not associated with lower stigmatizing attitudes among the public.(46) • Regarding the psycho-education programs for family members of individuals with serious mental health conditions, there was a medium reduction in stigmatizing attitudes post-intervention, with one study finding large effects six months later.(41) • The effects of education-based stigma-reduction programs on knowledge and attitudes generally yielded positive effects on knowledge and attitudes (e.g., significant increases in positive attitudes towards people living with HIV and significant reductions in fear towards people living with HIV).(44) • While the educational interventions in one review found improvements in knowledge, attitudes, social distance, self-awareness, help-seeking intentions, and behavioural change, contact-based interventions were found to be more effective than educational interventions.(43) • While some studies showed video interventions were less effective than other types of interventions, others showed they were equally effective, and some reported they were even more

Type of approach	Features of the approach	Summary of impact
		effective. These positive outcomes included: increased knowledge about mental health conditions; positive attitudes towards help seeking; positive attitudes towards people with mental health conditions; and reduced stereotyping of dangerousness towards people with mental health conditions. Repeated video exposure facilitated long-term positive changes.(45) • While educational strategies used in various stigma-reduction programs resulted in durable gains in knowledge and stigma reduction, contact-based interventions were found to be more effective.(39)
Making school curriculum changes	• Seven reviews and one study described a school-based curriculum change intervention directed towards students as a method to address social stigma. • Two reviews examined the effectiveness of grade-school-based anti-stigma interventions in terms of increasing knowledge and reducing stigmatizing attitudes.(47; 48) In one review focusing on K-12 students in the U.S., the content of the programs included primarily instructor-led traditional mental health education curriculums, and some included one-time presentations or video components. Interventions were delivered by a faculty advisor, counsellor, teacher, nurse, researcher, clinician, mental health professional, staff member, or mental health client.(47) In another review focusing on school and university students in low- and middle-income contexts, most of the included studies addressing mental health-related stigma and discrimination used interventions comprising mental health education and literacy, or mental health information.(48) • Two other reviews highlighted various brief informational interventions directed towards university and college students.(42; 43) In one review, the following stigma-reduction interventions were examined: 1) lectures providing information about therapeutic processes, treatment effects, and available mental health services; 2) lectures criticizing stigma; 3) video-based education such as watching famous films about schizophrenia and	• Two reviews presented modest evidence for the effectiveness of school-based anti-stigma interventions in terms of increasing knowledge and reducing stigmatizing attitudes.(47; 48) • Two reviews suggested that contact interventions were more effective in reducing stigma, improving attitudes, and reducing desire for social distance among university or college students in comparison to educational-based interventions delivered in school settings.(42; 43) • The findings from the review of school mental health literacy programs demonstrated that most of the interventions employed enhanced knowledge, reduced stigmatizing attitudes, and improved help-seeking behaviours among youth.(49) • The results from the review of school-based anti-stigma programs demonstrated that while several studies reported a positive impact on stigma or knowledge outcomes at follow-up, the remaining studies did not produce significant change at follow-up, rendering the overall findings inconclusive.(50) •

Type of approach	Features of the approach	Summary of impact
	a lecture by professionals after two weeks; and 4) video-based education with psychological information compared with biological information at immediate follow-up.(42) Another review assessed an intervention that involved explanations about people with mental health conditions by professionals towards university/college students (including medical, nursing, and psychology students).(43) • Another review evaluated school-based mental health literacy programs that were either condition-specific programs or generally focused on mental health education. Mental health-literacy programs encompassed at least one of the following domains: 1) addressing basic concepts about mental health; 2) providing resources/strategies for help-seeking behaviours; or 3) including activity/strategies for stigma reduction towards mental health conditions.(49) • One review examined mental health anti-stigma programs for young people involving school curriculum changes. The interventions varied in content and delivery methods, with some being education-only and others implementing indirect or direct contact with someone with lived experience. The duration ranged from one-time interventions lasting 30-120 minutes to multiple sessions over a period of up to four months.(50)	
Using social marketing/ public awareness campaigns	• One review examined school-based mental health awareness campaigns that were primarily instructor-led traditional mental health education curriculums. Some included one-time presentations or video components. The awareness programs were delivered by a faculty advisor, counsellor, teacher, nurse, researcher, clinician, mental health professional, staff member, or consumer.(47) • A different systematic review evaluated public information and awareness programs that address suicide and depression. Programs could be classified into short media campaigns (involving a single exposure), gatekeeper training programs, and long programs (involving repeated exposures, conducted nationally or locally). The programs aimed to increase the public's knowledge of	• This review found improvements in knowledge of mental health, attitudes toward mental health and/or help-seeking behaviours through the use of school-based mental health awareness campaigns.(47) • The public awareness and information programs about suicide and depression highlighted in this review were demonstrated to improve knowledge and awareness in the short term. Furthermore, the review showed that most campaigns contributed to reducing stigma by having a positive impact on public attitudes towards those with mental health conditions.(51) • This review highlighted two different population-level interventions: social

Type of approach	Features of the approach	Summary of impact
	depression/suicidal crises and reduce mental health stigma.(51) • Another systematic review highlighted social marketing population-level interventions, which used marketing techniques to improve public-health targets. This approach had the aim of promoting increases in knowledge around depression.(52) • Two primary studies examined public awareness campaigns among the general public and a youth population. One study highlighted an intervention that was developed in collaboration with community healthcare centres to reduce stigma related to mental health conditions and substance-use disorders at an organizational level. This intervention included awareness campaigns among providers and the general public.(53) In another study, a two-month social media campaign was designed to: a) increase mental health awareness through prompting visits to an interactive, educational, youth-focused website (mindcheck.ca); and b) to improve attitudes and behaviours towards mental health issues. The campaign featured a two-minute video of a famous male sports figure talking about mental health, a teammate who struggled with mental health, and promoting mindcheck.ca.(54)	norm intervention campaigns, which were found to have mixed effectiveness; and environmental interventions, which may have some benefit, but more research is needed.(52) • Of the two primary studies included, one study concluded that the intervention was effective in changing attitudes toward mental health conditions and substance-use disorders,(53) while the other study showed no improvement in behaviours and attitudes towards mental health conditions.(54) •

Approaches addressing structural stigma for other health-related issues

Interventions identified from the included systematic reviews and primary studies for addressing structural stigma included: 1) altering or changing care protocols or policies; 2) engaging local champions; 3) engaging people with lived experience; 4) facilitating longer-term personal commitments; 5) providing education and information; 6) providing skills training; and 7) sharing the responsibility of care during cases of complexity. We provide an overview of key findings related to these interventions in Table 4.

Table 4: Overview of key findings for interventions for addressing structural stigma for other health-related issues

Type of Approach	Features of the approach	Summary of impact
Altering or changing care protocols or policies	• Three systematic reviews and one primary study included evidence related to altering or changing care protocols or policies to address stigma. • One medium-quality review focused on reducing HIV-related stigma examined	• Most changes were found to decrease stigma, but some interventions produced mixed results.(25) • The findings of this review were mixed, with some studies reporting harms in the form of an increase in

Type of Approach	Features of the approach	Summary of impact
	structural changes such as altering policies, providing clinical materials, redressing systems and facility restructuring.(25) • Another medium-quality review sought to examine how altering protocols could improve culturally sensitive healthcare for marginalized populations experiencing various health issues. This review examined interventions providing alterations of an established protocol, or the delivery of an established protocol, to meet the needs of a target population.(37) • One high-quality review evaluated structural interventions including staff training, participatory hospital policy development, provision of materials and supplies, and expansion of HIV counselling and testing.(55) • Finally, a primary study highlighted an intervention involving a review of internal policies and procedures for stigmatizing practices.(53)	negative attitudes or stigma resulting from the intervention.(37) • This review of interventions addressing HIV-related stigma produced a significant decrease in fear-based and social stigma, and an increased probability of seeking informed consent to test for HIV.(55) • The study found that the intervention was effective in changing attitudes toward mental health conditions and substance-use disorders. The study also concluded that qualitative findings were indicative of improvements in mental health knowledge and behaviour.(53)
Engaging local champions	• One review and one study examined implementing local champions as a way to minimize structural stigma. • The high-quality review focused on training 'popular opinion leaders' through group discussions, games and role-plays.(55) • The primary study aimed to reduce stigma related to mental health conditions and addictions at an organizational level through implementing site-based teams of local champions.(53)	• The review demonstrated positive effects on healthcare workers' intent to avoid service provision to people living with HIV with effects sustained at 12-months follow-up.(55) • The intervention described in the primary study was found to be effective in changing attitudes toward mental health conditions and addictions, as well as improving mental health knowledge and stigmatizing behaviours.(53)
Engaging people with lived experience	• Linking health professionals with people with lived experience of the health issue was suggested as a way to address structural stigma in several reviews.(25; 35; 43; 44; 53; 55-58) In the review that did not find a reduction in stigma, the interventions included contact with HIV patients through peer-led discussions, guest speaker talks, and including HIV patients in program delivery.(44) • In addition, one high-quality review highlighted an information-based professionally assisted peer-group intervention, comprised of eight sessions, as an approach aiming to address HIV-related stigma and discrimination in healthcare settings.(55)	• Of the six reviews and three studies that examined structural interventions involving contact with the stigmatized group, all but one systematic review demonstrated reductions in stigma.(25; 35; 43; 44; 53; 55-58) Although contact with people living with HIV has been suggested as a useful strategy in reducing HIV stigma, this intervention was not found to be a significant moderator in this review.(44) • This review found that a professionally assisted peer-group intervention led to significantly lower

Type of Approach	Features of the approach	Summary of impact
		levels of client-contact stigma and public-contact stigma.(55)
Facilitating long-term personal commitments	• One intervention study aimed to facilitate long-term personal commitments to reducing stigma towards people with mental health conditions among care professionals. The intervention included efforts to foster personal commitments to anti-stigma, and refresher sessions to reinforce key messages and promote long-term attitude change.(58)	• This study demonstrated that attitudes and behavioural intentions towards people with mental health conditions improved from pre- to post-intervention.(58)
Providing education and information	• Reducing structural stigma through education and information provision targeted at professionals was an approach addressed in seven different systematic reviews. • In two systematic reviews, education and information provision was targeted towards professionals. One review sought to provide healthcare providers with more information on conditions or about stigma.(25) In another review, cultural competency education targeted at providers was examined by one medium-quality systematic review. This could include provider education, but also altering interventions to better cater for minority populations. In this case, culturally tailored healthcare interventions were created for chronic physical or mental health conditions such as depression, diabetes and substance-use disorders. Similarly, two specific psychological interventions were created for members of the LGBTQ+ community.(37) • A meta-analysis that focused on HIV examined stigma reduction programs that aimed to improve service providers' knowledge of and attitudes towards people living with HIV,(44) while another systematic review examined an intervention that provided mental health knowledge to students in grades five through 12. These programs could be video-based, one-time presentations, or instructor-led mental health education curriculum.(47) • One high-quality systematic review examined interventions that aimed to reduce stigma around people living with HIV/AIDS through multifaceted educational programs. These programs were executed through various didactic lectures and activities, including a five-day workshop for healthcare workers pertaining to HIV/AIDS epidemiology, natural history, transmission routes, and clinical care, combined	• Findings were mixed with some reviews concluding that the effectiveness of educational programs was inconclusive due to the low quality of included studies,(37; 44; 47; 56) while others suggested that there was evidence to suggest these interventions are effective.(25; 43; 55)

Type of Approach	Features of the approach	Summary of impact
	with activities that sparked discussion of participants' values and feelings about HIV/AIDS.(55) • A different high-quality review evaluated HIV-related informational interventions in reducing HIV/AIDS stigma, including written information provided in a brochure.(56) • A final systematic review examines three different types of educational interventions to decrease stigma around mental health conditions: 1) direct contact where the target group speaks to someone with a mental health condition; 2) indirect contact where the target group interacts with someone with a mental health condition virtually; and 3) explanations about people with a mental health conditions by professionals.(43)	
Providing skills training	• Six different systematic reviews identified skills training as a potential way to address structural stigma.(25; 37; 47; 51; 55; 56) • Skills-building interventions took numerous forms. One review identified that skills training encompassed direct staff training, material provision, self-guided training, modular interactive training, and training through games, discussion and role-plays.(55) In another review, skills training included training through guided or controlled clinical practice, with some including engagement with a member of the stigmatized group and others not.(25) A different high-quality systematic review examined skills-building interventions that aimed to reduce HIV/AIDS stigma.(56) • One program focused on long-term cultural competency skills building targeted at providers.(37) • One medium-quality systematic review examined an intervention that trained gatekeepers in order to decrease stigma around suicide and depression. Gatekeepers are community members (for example, teachers, priests and police officers), trained to identify people with mental health problems and direct them towards assistance.(51)	• Training interventions evaluated in a high-quality systematic review yielded positive results including decreases in stigma, prejudicial attitudes, and avoidance intent (intent to avoid service provision to people living with HIV).(55) For the skills-building activities of one systematic review, stigma was decreased.(25) Finally, skills-building approaches also led to significant reductions in HIV/AIDS stigma.(56) • Therefore, skills-building interventions were generally shown to be effective in decreasing stigma.(25; 55; 56) • Cultural competency training and skills-building programs targeted at providers were shown to have mixed and inconclusive results on reducing stigma.(37) • Gatekeeper training produced slight effects in increasing knowledge around depression and reducing stigma. While gatekeeper training could contribute to beneficial outcomes regarding stigma, it worked more effectively when combined with other methods (for example, incorporation of educational material and a media campaign as well). Furthermore, programs were more

Type of Approach	Features of the approach	Summary of impact
		beneficial if they used multiple mediums.(51)
Sharing the responsibility of care during cases of complexity	• Interventions to address structural stigma through sharing the responsibility of care during cases of complexity were described in one systematic review and one primary study. • One medium-quality review examining the effectiveness of interventions to promote help-seeking for mental health problems included interventions that delivered collaborative-care training to primary care or community-based agencies, and jointly provided care for mental health problems, mostly for depression. Trainers included psychiatrists, psychologists and nurse care managers.(38) • One study examining the underlying value tensions that influence ethical nursing practice and equity in care access for people experiencing homelessness or substance-use disorders discussed an intervention that involved sharing the responsibility of caring for individuals who are more challenging between many team members.(33)	• This review demonstrated that interventions involving collaborative care showed a small yet significant increase in formal help-seeking attitudes compared to control conditions. Meanwhile, interventions did not create a difference in informal help-seeking attitudes. In addition, most studies showed interventions improved mental health literacy and decreased stigma.(38) • The study demonstrated that nurses and other team members were encouraged to work with individuals with whom they had a good relationship, and shared the care of individuals found to be difficult, demanding or challenging among the team.(33)

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APPENDICES

The following tables provide detailed information about the included systematic reviews and primary studies. The ensuing information was extracted from the following sources:

- systematic reviews - the focus of the review, key findings, last year the literature was searched, and the proportion of studies conducted in Canada; and
- primary studies - the focus of the study, methods used, study sample, jurisdiction studied, key features of the intervention and the study findings (based on the outcomes reported in the study).

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

All of the information provided in the appendix tables was taken into account by the authors in describing the findings in the rapid synthesis.

Appendix 1: Summary of findings from systematic reviews about approaches to address stigma associated with substance use

Focus of systematic review	Key findings	Year of last search/ publication date	AMSTAR (quality) rating	Proportion of studies that were conducted in Canada
Assessing interventions which aim to reduce stigma related to HIV, mental health conditions or substance use in healthcare settings (25)	This review included 47 articles that outlined 42 different interventions to reduce stigma related to HIV, mental health conditions, or substance use in healthcare settings. The review identified 20 interventions targeted at healthcare providers, 24 at healthcare students, four at clients, and one at all levels. From these interventions, six key strategies emerged to reduce stigma in healthcare settings; 1) provision of information: teaching participants about the health condition or about stigma; 2) skills-building activities: allowing healthcare providers develop skills to work with stigmatized groups; 3) participatory learning: healthcare professionals and participants actively engage in the intervention; 4) contact with stigmatized group: involving the stigmatized group in the delivery of the interventions; 5) empowerment approach: fostering coping mechanisms to overcome stigma; and 6) structural or policy: changing policies, providing clinical materials, redressing systems, and facility restructuring. The review found that the majority of interventions used multiple approaches to reduce stigma, and that the most frequently used approaches were contact with the stigmatized group (n = 30), provision of information (n = 29) and participatory learning (n = 28). The review concluded that very few articles actually identified the stigma drivers that were being targeted by these interventions, but determined that interventions were aimed to generally have an impact on attitudes towards the stigmatized group, knowledge about stigma, knowledge of the condition, ability to clinically manage the condition, fear about potential outcomes, client coping mechanisms, and changes in institutional policies. Out of 40 quantitative intervention evaluations, 27 were found to show reduced stigma and 13 had mixed results. However, the included interventions were evaluated using a variety of different methods; some used a single measure or question, while others measured several different constructs using a range of tools. This limited cross-intervention conclusions. Only articles published in English were included.	2018	7/10 (AMSTAR rating from McMaster Health Forum)	8/47
Examining the effectiveness of interventions to reduce substance-use-disorder stigma (14)	The review included 13 studies that evaluated substance-use-disorder stigma interventions. The review found that three studies targeted people with substance-use disorders (self-stigma), three studies targeted the general public (social stigma) and seven studies targeted medical students and other professional groups (structural stigma). Although the majority of interventions were found to use education and/or contact with the stigmatized group as their main approach, a detailed account of the interventions is outlined below:	2009	7/10 (AMSTAR rating from McMaster Health Forum)	2/13

	1) Self-stigma interventions included therapy groups, skills training, vocational counselling, and a surgical procedure to remove needle track marks. Positive outcomes were impacts on shame, internal stigma, view of society, alienation and recovery. 2) Social-stigma interventions included educational fact sheets, leaflets based on positive recovery stories, and motivational interviewing. Positive outcomes were impacts on attitudes towards people with substance-use disorders. 3) Structural-stigma interventions included educational reflection and programs dedicated to stigma education and contact with those effected. Positive outcomes were impacts on dislike or judgmental feelings towards those with disorders. Of the 13 interventions, seven reported positive results and six reported mixed results. Specifically, the limited evidence indicated that, for self-stigma, therapeutic interventions such as group-based acceptance and commitment therapy may be effective. For social stigma, motivational interviewing and communicating positive stories were seen to be effective. For structural stigma, contact-based training and education programs targeting medical students and professionals were deemed effective. Regarding limitations, the review concluded that only three of the 13 studies assessed stigma-related outcomes beyond the immediate post-intervention period, and that most studies used different measures and evaluated different intervention features. Furthermore, the review concluded there was variation in methodological quality and no study evaluated outcomes across different settings or populations.			
Evaluating the impact of HIV/AIDS-related self-stigma reduction interventions among people living with HIV and their families (36)	This review included 23 studies that sought to examine the impact of HIV/AIDS-related self-stigma reduction interventions among people living with HIV/AIDS and their families. Five types of intervention approaches were identified and described: 1) psycho-educational intervention; 2) supportive intervention for treatment adherence (antiretroviral therapy); 3) psychotherapy intervention; 4) narrative intervention; and 5) community participation intervention. The psycho-educational intervention was described in 13 included studies, which utilized educational, skill building, empowerment, and social-support approaches. The education focused on relaying information related to HIV/AIDS, promoting health behaviours, coping with negative feelings and stigma, and creating support networks. The skill-building programs helped participants develop skills related to stress reduction, leisure, relaxation, stigma coping, anger, and decision-making. The empowerment approach focused on improving participants' self-esteem, confidence, independence and social relationships. Finally, social-support programs were focused on providing emotional and informational support. The support-group intervention for treatment adherence (antiretroviral therapy) on people living with HIV/AIDS in resource-limited contexts was evaluated in four studies. This intervention focused on addressing barriers and improving access to antiretroviral therapy treatment adherence, and offering emotional, informational, nutritional and financial support. Psychotherapy approaches to reduce HIV/AIDS-related self-stigma were assessed in four studies. Two studies employed emotional writing disclosure to support cognitive reorganization, one study assessed the	2018	6/10 (AMSTAR rating from McMaster Health Forum)	0/23

	impact of eight weekly sessions of acceptance and commitment therapy-based group therapy, and one study evaluated the impact of eight weekly sessions of individual-based cognitive-behavioural therapy. One randomized controlled trial assessed a narrative intervention, which empowered HIV-positive women to overcome self-stigma through a weekly 45-minute narrative video entitled "Maybe Someday: Voices of HIV-Positive Women." Finally, one community participation intervention supported the community by increasing social support among people living with HIV/AIDS, family members, and other community members, all while providing education related to HIV/AIDS, and integrating support with a socio-economic intervention. The interventions assessed in this review produced mixed results. The effect sizes ranged from small to large for the self-stigma in the short-term and long-term follow-up, with the results suggesting a generally promising trend for reducing self-stigma for people living with HIV/AIDS and their families. However, there are several limitations in this review, including the over-representation of women in self-stigma reduction interventions.			
Examining the effectiveness of information and communication technologies interventions on mental health literacy (35)	This review included 19 studies that aimed to examine the effectiveness of information and communication technologies interventions on mental health literacy. Mental health literacy can improve patients' recognition of mental health conditions, stigma and help-seeking behaviours. Of the 19 included studies, 15 studies explored stigma towards mental health disorders. Eight studies yielded significant findings on stigma reduction. The interventions that generated significant findings were: 1) mental health first aid interventions; 2) filmed social contact about schizophrenia; 3) video contact intervention about an individual with schizophrenia; 4) video and embodied conversational agent interventions about anorexia; 5) web pages intervention on depression stigma; 6) three weeks of online information intervention; and 7) PowerPoint presentation about autism. Nine studies assessed help-seeking attitudes, behaviours, and intentions to seek help both formally and informally. Of those, seven studies produced results indicating a significant increase in help-seeking levels. The interventions in these studies were: 1) Health E-cards that provide information on depression; 2) mental health first aid course; 3) Mindwise intervention campaign; 4) Link website about mental health problems; 5) three weeks of online information and education intervention; 6) Reach Out Central role-playing game; and 7) multimedia community campaign. While informational interventions were effective in enhancing mental health literacy of the comparatively less common disorders such as anxiety disorder and anorexia, interventions that were more helpful in enhancing depression and mental health literacy included active components such as videos or quizzes. Interventions that elevated mental health literacy also reduced stigma. However, improvements in mental health literacy levels did not increase help-seeking behaviours, and reduction in stigma levels did not	2017	7/10 (AMSTAR rating from McMaster Health Forum)	0/19

	improve help-seeking behaviours. The results should be interpreted with caution, given the heterogeneity of the quality of studies.			
Evaluating the evidence on what interventions are effective in reducing public stigma towards people with severe mental health conditions (41)	People living with severe mental health conditions must also cope with the erroneous beliefs, stereotypes and prejudice that result from misconceptions about mental health conditions. This review included 62 studies that aimed to evaluate the evidence on what interventions are effective in reducing public stigma towards people with severe mental health conditions. There were 22 comparisons of contact interventions including direct contact, indirect (video) contact, imaginary contact, direct or imaginary contact, and indirect and imaginary contact. Pooling data from the contact interventions, there was a small-to-medium reduction in stigmatizing attitudes immediately post-intervention. Contact interventions were also found to reduce social distance significantly post-intervention. However, the long-term effects of contact interventions on stigmatizing attitudes and social distance were less clear, with small and insignificant results. Education interventions were assessed in 20 studies, and were organized into two groups: 1) brief intervention of textual information up to three pages long; and 2) longer programs delivered to groups or via video. Education interventions produced a small-to-medium reduction in stigmatizing attitudes immediately post-intervention. Of the 20 studies, eight comparisons found a small effect on social distance at post-intervention. Three studies compared the effect on stigma from information about several mental health conditions and its attribution to psychosocial or biological factors. Three studies found lower stigmatizing attitudes when causal explanations focused on biological instead of psychosocial factors. Five studies investigated the long-term effects of educational interventions, which found a small but significant effect on social distance and stigmatizing attitudes. Six studies evaluated mixed contact and education interventions, which significantly reduced stigmatizing attitudes post-intervention. Two studies found a small-to-medium effect on social distance post-intervention. The long-term effects were similar for stigmatizing attitudes and social distance. Seven studies compared the effects of contact versus education, with four evaluating in-person (direct) contact and three video contact. However, there were no significant differences in effects on stigma or social distance both at post-intervention and longer-term follow-up. Four studies assessed the effect on stigmatizing attitudes of psycho-education programs for family members of individuals with serious mental health conditions. There was a medium reduction in stigmatizing attitudes post-intervention, with one study finding large effects six months later. Finally, three studies assessed the effects of hallucination simulations, which produced inconsistent effects for both social distance and stigmatizing attitudes. Of note, two studies found small-to-medium harmful effects on social distance post-simulation.	2017	7/11 (AMSTAR rating from McMaster Health Forum)	3/62

	The findings of this review suggest that contact and educational interventions have small-to-medium post-intervention effects on stigma towards people with severe mental health conditions. However, further research is needed to explore ways to sustain benefits in the longer term.			
Evaluating the effectiveness of stigma-reduction programs in improving knowledge and reducing negative attitudes towards people living with HIV (44)	People living with HIV are on the receiving end of high levels of stigmatizing attitudes and behaviours. This review included 77 articles that sought to evaluate the effectiveness of stigma-reduction programs in improving knowledge and reducing negative attitudes towards people living with HIV. The majority of interventions identified were education-based in the form of lectures and talks. Other studies put participants in direct contact with a person living with HIV, often through guest speakerships or employed peer-led approaches. Just under half of the included articles used mixed intervention approaches. The majority of interventions (n=44) consisted of multiple sessions that lasted from four days to two years, and a wide range of interactive activities were reported (including role-play, group work, games and other activities). The meta-analysis showed that significant small effect sizes were seen in participants' knowledge of HIV/AIDS with and without control groups. Furthermore, significant small effect sizes were found in the improvement of the participants' attitudes towards people living with HIV from interventions with and without control groups. These significant and small effect sizes were also sustained at follow-up assessments. The results from this review indicate that most of the included studies yielded positive findings in terms of reducing negative attitudes toward people living with HIV and improving HIV-related knowledge. However, given that most of the studies were of low methodological quality, the results of the review should be interpreted with caution.	2016	7/11 (AMSTAR rating from McMaster Health Forum)	0/77
Reviewing empirical literature pertaining to universal interventions addressing mental health among students enrolled in U.S. K-12 schools (47)	Stigmatizing attitudes toward mental health conditions and low mental health literacy have existed as barriers to help-seeking for mental health-related problems among children and adolescents. This review included 15 studies that sought to examine literature pertaining to universal interventions addressing mental health among students enrolled in U.S. K-12 schools, especially related to health inequities in vulnerable populations. The aims of the interventions reviewed included improving mental health/illness knowledge, improving attitudes toward mental health or illness, and improving help-seeking. The content of the interventions mainly encompassed instructor led didactic mental health education curriculums, and some included one-time presentations or video components. Most of these interventions were delivered in classrooms and varied in length as well as delivery. Interventions were delivered by a faculty advisor, counsellor, teacher, nurse, researcher, clinician, mental health professional, staff member, or consumer. Mental health knowledge was conceptualized as knowledge of mental health conditions, violence, mental health issues, mental health literacy, depression, depression risk factors, suicide, suicide risk factors, suicide warning signs, and suicide myths and facts. Of the 15 included studies, 12 measured students' knowledge of mental health, with all studies finding improvement in knowledge at post-test. However, it is important to note that not all 12 studies found statistical significance in this improvement.	2015	6/9 (AMSTAR rating from McMaster Health Forum)	0/15

	Attitudes toward mental health were measured as attitudes toward suicide, opinions about mental health, desire to hear more about mental health issues, attitudes towards psychiatrists, opinions about mental health conditions, attitudes toward mental health conditions, stigma related attitudes, importance towards violence and community, and stigma related to mental health conditions. Of the 15 included studies, 11 assessed attitudes toward mental health. Nine of the 11 studies found improvements in attitudes toward mental health at post-intervention. The remaining two studies did not find a significant effect of the intervention on improving attitudes toward mental health. Help-seeking was evaluated by measuring help-seeking behaviours, intentions to seek help, likelihood to seek help, attitudes toward seeking psychological help, willingness to seek help, and help-seeking knowledge. Of the 15 studies, seven measured help-seeking. Although five studies showed improvement in help-seeking, the remaining two studies did not identify a significant effect on help-seeking behaviours. The findings of this review indicate some level of improvement related to mental health-awareness outcomes with the examined interventions. However, the limitations of the review, including the fact that only a single researcher conducted the search, article selection, and data abstraction, signifies the importance of interpreting the results with caution.			
Synthesizing what is known globally about effective interventions to reduce stigma and discrimination related to mental health conditions in relation to effectiveness and interventions in low- and middle-income countries (48)	This review included 80 studies that sought to examine what is known globally about effective interventions to reduce stigma and discrimination related to mental health conditions, in relation to effectiveness and interventions in low- and middle-income countries. Interventions included in the review ranged in their target audience and their features. Interventions generally targeted school students, university students and healthcare professionals, but also included the general public, people with substance-use issues, and other groups. The features of these interventions generally comprised educational programing delivered in a variety of formats, but also comprised features such as direct contact with the stigmatized group, motivational interviewing, therapeutic interventions, and mental health first aid courses. The synthesis of 72 studies with follow-up beyond four weeks revealed that, at this follow-up, interventions aiming to reduce mental health-related stigma typically had a medium-sized effect on knowledge outcomes and a small effect on attitudinal outcomes. However, with both outcomes, statistically significant findings were as common as non-significant ones. Furthermore, there was insufficient evidence on behavioural outcomes to reveal any significant findings on the medium- or long-term effectiveness of interventions to reduce discrimination. Finally, this review, which included studies with medium- and longer-term outcomes, did not support the superiority of social-contact interventions over any other types of interventions. However, the effectiveness of social-contact interventions over the long term warrants further study, given the importance of sustaining stigma reduction in the longer term. There is variable evidence for the effectiveness of anti-stigma interventions beyond four weeks follow-up with respect to increasing knowledge and reducing stigmatizing attitudes.	2013	5/10 (AMSTAR rating from McMaster Health Forum)	1/80

Reviewing the published literature on the effectiveness of classroom-based interventions to address the stigma related to mental health conditions in young people, and to identify any elements within effective programs (50)	This review included 17 studies that addressed two specific questions: 1) What current evidence is there to justify the growing support for the effectiveness of school-based anti-stigma programs; and 2) what evidence is there to inform future successful program design? To address the first question, 12 studies collected information at follow-up, with seven studies demonstrating statistically significant positive changes at follow-up as a result of school-based anti-stigma programs. There were four studies that reported a statistically significant positive effect at immediate post-test, but not at follow-up. Finally, the remaining studies demonstrated no significant changes at either post-test or follow-up. It was difficult to address the second question and identify any consistent features in successful intervention programs due to the heterogeneity in interventions and methodologies. Only one study revealed an aspect of a one-off session that might offer the most benefit: the most improvement was seen in the group that had education (30-minute lecture) followed by a 15-minute video, rather than vice versa, or education only. While a few studies reported a positive impact on stigma or knowledge outcomes at follow-up, there were substantial methodological shortcomings in the studies examined. Therefore, there is a current lack of conclusive evidence for the types of interventions that are effective for children and adolescents.	2013	4/9 (AMSTAR rating from McMaster Health Forum)	1/17
Assessing the effects of short-term interventions to reduce mental health-related stigma in university or college students (42)	This review included 35 studies that examined the effectiveness of brief interventions in reducing mental health stigmatization in university and college students, and sought to identify which strategies are most effective. To assess the effectiveness of short-term stigma reduction interventions, two different comparisons were made: 1) any intervention compared with inactive controls; and 2) intervention versus another intervention. Findings related to the first comparison (any intervention compared with inactive controls) are described below. Seven studies evaluated the effect of 10 interventions on knowledge. Three interventions (having a lecture, video-based social contact plus video-based education, and social contact) yielded significant improvement in students' knowledge about the target illnesses post-intervention and at long-term follow-up. Of the 35 included studies, 21 assessed the effect of 33 interventions on attitudes. No intervention tested in medical students showed a significant effect. However, seven studies involving other students found significant improved attitudes post-intervention after video-based social contact, and at all follow-up points after social contact, lectures, and role-play education. In terms of social distance, which was assessed in 12 studies, three studies showed significant improvements after social contact, video-based social contact, and lectures about dangerousness or responsibility. One study reported that a lecture providing information about therapeutic processes, treatment effects, and available mental health services produced significant improvements in participants' attitudes toward the use	2013	7/10 (AMSTAR rating from McMaster Health Forum)	0/35

	of services in comparison with control group participants, both immediately and at four-weeks post-intervention. Findings related to the second comparison (intervention versus another intervention) are described below. One study found that there were no significant differences in change in social distance between social contact and videotaped social contact. However, another study outlined that attitudes and behavioural intentions of students in the social contact were significantly more improved than those in the video-based social contact. In terms of social contact versus education lecture, one study reported that students who experienced social contact improved their attributions more than those who participated in lectures that criticized stigma. Furthermore, in two other studies, the intervention including social contact produced a more favourable change in social distance immediately after the intervention or after one week than did lectures. In terms of video-based social contact versus any other type of intervention, one study did not find a significant effect on desire for social distance between those who experienced video-based social contact plus a brief explanation about psychiatric symptoms by a psychiatrist, and those who experienced the explanation by a psychiatrist only. However, five other lower-quality studies reported more positive effects for video-based social contact plus text than video-based social contact only. Although one study reported that there were no differences in students' knowledge between famous films about schizophrenia and a lecture by professionals after two weeks, another study found significant increases in knowledge and improvement in attitudes in students who viewed a set of famous films plus video-based education in comparison with a famous film alone. One study found significant improvements in students' attitudes after video-based education with psychological information compared with biological information at immediate follow-up. However, the two other studies making the comparison between interventions presenting biological information versus psychosocial information found no significant difference. The findings from this review suggest that social contact or video-based social-contact interventions are the most effective in improving attitudes and reducing desire for social distance. However, given the generally low methodological quality of the included studies, more rigorous research is needed to verify this finding.			
Evaluating the effectiveness of school mental health literacy programs to enhance	Mental health problems and mental disorders in young people are a key public health concern. This review included 27 studies that sought to evaluate the effectiveness of school mental health literacy programs to enhance knowledge, reduce stigmatizing attitudes, and improve help-seeking behaviours among youth. In terms of the effectiveness of school mental health literacy programs to increase knowledge, 12 out of 15 studies examining knowledge outcome demonstrated a statistical significant increase in knowledge associated	2012	7/10 (AMSTAR rating from McMaster Health Forum)	2/27

knowledge, reduce stigmatizing attitudes, and improve help-seeking behaviours among youth 12-25 years of age (49)	with the interventions. However, two studies found mixed results, and one study yielded no statistically significant findings eight weeks post-intervention. Regarding the effectiveness of school mental health literacy programs to reduce stigmatizing attitudes, 21 studies addressed attitudes towards mental health conditions with 14 observing decrease in stigma following intervention. Six studies produced mixed findings, in which improved attitudes showed in some sub-measures, but not in others. One study indicated no difference in attitude changes between intervention and control groups. Finally, eight studies focused on help-seeking behaviours, with only three of these studies measuring actual help-seeking behaviours. The remaining five studies investigated attitudes towards help-seeking behaviours. The three studies addressing actual help-seeking behaviours reported mixed findings, with evidence in support of improved outcomes from some sources but not from others. None of these studies, however, employed validated measures to evaluate study outcomes. Most included studies in this review highlighted positive evidence in support of the three outcomes evaluated. However, substantial methodological limitations embedded within the studies render the findings of the review inconclusive.			
Examining existing system-, clinic-, provider-, and individual-level interventions to improve culturally appropriate healthcare for people with disabilities; lesbian, gay, bisexual, and transgender populations; and racial/ethnic minority populations (37)	This review included 56 studies that sought to examine current system-, clinic-, provider-, and individual-level interventions to improve culturally appropriate healthcare for marginalized populations. Interventions were organized into four main categories: 1) provider trainings and education; 2) interventions providing alteration of an established protocol, or the delivery of an established protocol, to meet the needs of a target population; 3) interventions prompting patients to interact with the formal healthcare system or healthcare providers; and 4) interventions aimed at providing culturally competent care at the point of service. Educational programs and trainings to improve professional students' and providers' cultural competence behaviour are the most pervasive type of cultural competence intervention. The findings of the review produced mixed findings, with some studies demonstrating improvements and others illustrating potential harms from such professional training interventions. Interventions offering alterations of an established protocol were concentrated in the racial/ethnic minority populations. The 12 studies of culturally tailored healthcare interventions for racial/ethnic minority populations focused primarily on treatment of chronic physical or mental health conditions, such as diabetes, depression and substance-use disorder. Two psychological interventions were also created specifically for members of the lesbian, gay, bisexual and transgendered population. Another type of intervention was to offer additional resources to encourage or empower patients to interact with the formal healthcare system and/or healthcare providers. The aims of these types of interventions were to increase receipt of screenings for which disparities are prominent, or to support patients in engaging in medical decision-making.	2015	7/10 (AMSTAR rating from McMaster Health Forum)	3/56

	The most common culturally competent point-of-service interventions were documents, similar to a medical record, that patients carried to their appointments to prompt providers to evaluate areas of known disparity for the specific population to which patients belong. These interventions may be linked to provider-education interventions. Virtual interventions were also considered culturally competent point-of-service interventions for some people with disabilities, as they may improve care accessibility. The medium or high risk of bias of the included studies and the heterogeneity of the examined populations reveal gaps in the literature, thereby warranting further research.			
Locating, appraising and describing international literature reporting on interventions that address HIV-related stigma and discrimination in healthcare settings (55)	HIV-related stigma and discrimination serve as barriers to access and adherence to treatment and support programs among people living with HIV. This review included eight studies that sought to identify, evaluate and describe interventions that address HIV-related stigma and discrimination. Training popular opinion leaders through group discussions, games and role-plays had a sustained, positive effect on healthcare workers' avoidance intent (intent to avoid service provision to people living with HIV) even at 12 months follow-up. At 12 months follow-up, the prejudicial attitudes among healthcare workers in the intervention hospitals was significantly lower compared to those working in control hospitals. Universal precaution compliance was significantly higher among healthcare workers in the intervention group when compared to those in usual care. Modular interactive training and discussion for healthcare workers focused on HIV-related stigma, infection control, and medical ethics using five modules. This intervention yielded decreased levels of value-based stigma and fear-based stigma among healthcare workers in comparison to members of the control group. Professionally assisted peer-group intervention led to significantly lower levels of client-contact stigma and public-contact stigma in comparison to control groups. Staff training, participatory hospital policy development, provision of materials and supplies, and expansion of HIV counselling and testing comprised two subtypes of interventions: 1) participatory self-guided assessment and intervention with training and the development and dissemination of policy guidelines and education materials; and 2) staff training, participatory hospital policy development and provision of material supplies. These interventions produced a significant decrease in fear-based and social stigma, and an increased probability of seeking informed consent to test for HIV. Multifaceted educational programs involving didactic lectures and activities eliciting discussions resulted in significant improvement in empathy, reduction in avoidance attitude, improvement in general attitude towards people living with HIV, and willingness to care for people living with HIV. Workshops bringing people living with HIV and healthcare workers together increased self-esteem, and decreased experiences of workplace stigma, stigma more broadly, and negative self-perception. However, for people living with HIV, there were no significant effects on verbal abuse, healthcare neglect, social isolation, and fear of contagion. There was also no change in nurses' stigmatizing attitudes post-intervention.	Not reported	8/10 (AMSTAR rating from McMaster Health Forum)	0/8

	Group education on homophobia and fear of death, which was evaluated in one study, did not result in a significant reduction in AIDS phobia. This review identified several interventions that can facilitate HIV stigma reduction in clinical settings. However, further research should employ up-to-date and validated instruments to measure stigma and discrimination.			
Determining the effectiveness of HIV-related interventions in reducing HIV/AIDS stigma (56)	This review included 19 studies that sought to determine the effectiveness of HIV-related interventions in reducing HIV/AIDS stigma, given that HIV/AIDS stigma results in negative health outcomes in both industrialized and developing contexts. All nine randomized controlled trials used informational strategies, such as informational approaches, skill building, counselling/support, and testimonials from people living with HIV. Of the nine randomized controlled trials, five produced a statistically significant reduction in their stigma-outcome measurement. All six of the non-randomized control group studies used informational approaches to deliver their intervention, including informational approaches, skills building, and testimonials from people living with HIV. Two studies also used skill building and support groups, along with informational approaches, to deliver their interventions. All of the six non-randomized control group studies demonstrated significant and positive results for their HIV/AIDS stigma outcome. The four studies without a control group also used informational approaches to deliver their intervention. However, of the four studies, only three demonstrated significant results for their HIV/AIDS stigma outcome. Of the 19 studies included in this review, 14 demonstrated effectiveness in reducing HIV/AIDS stigma. However, only two of these 14 studies were considered, warranting higher-quality research in the future.	2009	8/10 (AMSTAR rating from McMaster Health Forum)	1/19
Summarizing reported barriers and facilitators of help-seeking in young people (40)	Adolescents and young adults face a higher prevalence of mental disorders than at other stages of the lifespan, yet tend to avoid seeking help. This review included 22 studies that examined barriers and facilitators of help-seeking in young people. Through this review, 13 key barrier themes were addressed: 1) public, perceived and self-stigmatizing attitudes toward mental health conditions; 2) confidentiality and trust; 3) difficulty identifying the symptoms of mental health conditions; 4) concern about the characteristics of the provider; 5) reliance on self, do not want help; 6) knowledge about mental health services; 7) fear or stress about the act of help-seeking or the source of help itself; 8) lack of accessibility with respect to time, transport and cost; 9) difficulty or an unwillingness to express emotion; 10) do not want to burden someone else; 11) prefer other sources of help; 12) worry about effect on career; and 13) others not recognizing the need for help or not having the skills to cope.	2009	3/9 (AMSTAR rating from McMaster Health Forum)	0/22

	In this review, eight key facilitator themes were identified: 1) positive past experiences with help-seeking; 2) social support or encouragement from others; 3) confidentiality and trust in the provider; 4) positive relationships with service staff; 5) education and awareness; 6) perceiving the problem as serious; 7) ease of expressing emotion and openness; and 8) positive attitudes towards seeking help. The findings from this review suggest that interventions to improve help-seeking by adolescents and young adults should focus on improving mental health literacy, reducing stigma, and accounting for the desire of young people for independence.			
Assessing health professionals' attitudes towards patients with substance-use disorders and examining the consequences of these attitudes (31)	The researchers included 28 articles in English and Dutch that were published between January 2000 and November 2011 through searches in Pubmed, Psychinfo, and Embase databases. This review aimed to assess health professionals' attitudes towards patients with substance-use disorders, and the primary outcomes were attitudes of health personnel, healthcare delivery and social stigma. The definition of health personnel for this review included those in general and specific professions such as nurses and general practitioners. Attitudes of health professionals towards patients with substance-use disorders were generally negative. More specifically, many health professionals were poorly motivated, voiced that these patients should be exclusively cared for by addiction specialists, or had greater stigma towards these patients than patients with other mental health conditions. Reasons for such attitudes included the perception of danger, manipulation and emotional stress when working with patients with substance problems. However, some professionals who rejected moral stereotyping reported positive views of patients with substance-use disorders. Interestingly, professionals who work in addiction services or have experience with substance-use disorders had higher regard for these patients than their colleagues. Organization and role supports were also significant factors in shaping health professionals' attitudes towards patients with substance-use disorders. The consequences of health professionals' negative attitudes on care delivery remains inconclusive. While some studies confirmed negative attitudes could lead to lower attrition and sub-optimal care, one study found no association between negative attitudes and care delivery. Limitations of this review included the inclusion of articles that are only in English and Dutch, and the exclusion of articles for which no abstract and full text were available from the aforementioned databases. The authors also cautioned against social desirability and selection bias in the results of included studies.	2011	6/10 (AMSTAR rating from the McMaster Health Forum)	1/28
Examining the effectiveness of interventions that promote help-seeking for mental health problems (38)	The researchers included 98 studies from nine databases in English, German and Chinese. This review examined the effectiveness of interventions to promote help-seeking for mental health problems. The primary outcomes were help-seeking attitudes, help-seeking intentions and help-seeking behaviours. Help-seeking behaviours included those seeking formal, informal or self-help. Secondary outcomes included mental health literacy and stigma related to mental health conditions. For interventions that were sought out by individuals, psycho-educational and cognitive-behavioural strategies to improve mental health literacy were implemented, which included increasing the recognition of	2016	6/11 (AMSTAR rating from McMaster Health Forum)	1/98

	signs of mental health problems, modification of beliefs about treatment and providing information on help-seeking sources. Other interventions delivered collaborative-care training to primary-care or community-based providers. For example, professionals in primary-care settings or communities learned clinical approaches to depression and how to overcome barriers that prevent care, enhancing the initiation and maintenance of treatment. Other interventions were at the systems level, and addressed multidisciplinary collaborative care, providing efficient referral services and sending reminder messages for appointments. Interventions promoting help-seeking showed a small yet significant increase in formal help-seeking attitudes compared to control conditions. Meanwhile, interventions did not create a difference in informal help-seeking attitudes. The interventions yielded a small increase in intentions to seek help in nine studies, but four studies showed no effect. In regard to help-seeking behaviours, interventions increased the odds of seeking formal help, but not informal help compared to an inactive control group. Self-help-seeking behaviours were increased in the intervention group compared to inactive control groups, while only one study found an increase in the intervention group compared to active controls. In addition, most studies showed interventions improved mental health literacy and decreased stigma compared to inactive controls. Limitations of this review include the varying quality of studies, high heterogeneity and unclear validity of some outcome measures. Additionally, most studies were conducted in high-income countries and evidence was only synthesized from articles in three languages, which reduces the review's external validity.			
Examining video interventions' effectiveness in destigmatizing mental health conditions among young people (45)	The researchers included 23 studies reported in English from 13 databases. The review aimed to assess the effectiveness of video interventions in reducing stigmatization of mental health conditions among young people. Primary outcomes were knowledge about disease aetiology, social distance, reported emotional reaction, perceived dangerousness, general attitudes, attitudes toward help-seeking, and behaviour towards someone with mental health conditions. The literature was inconclusive on the relative effectiveness of video interventions on eliciting positive outcomes. While some studies showed video interventions were less effective than other types of interventions, others showed they were equally effective, and some reported they were even more effective. However, when video interventions were combined with other interventions, outcomes were generally more positive than when interventions were delivered without a video component. These positive outcomes included: increased knowledge about mental health conditions; positive attitudes towards help-seeking; positive attitudes towards people with mental health conditions; and reduced stereotyping of dangerousness towards people with mental health conditions. In comparing different types of video interventions, the most effective designs involved doctors providing factual information in a deductive style, rather than those with patients speaking. Videos that are specific to a certain mental health conditions were also effective at reducing stigma against people with that condition. Finally, videos with moderate to high levels of disconfirmation were effective. Repeated exposure to these videos was important to facilitate lasting attitude changes.	Not reported	9/10 (AMSTAR rating from McMaster Health Forum)	0/23

	This review incorporated studies with considerable risk of selection and attrition bias. Other limitations were the substantial heterogeneity of the reported interventions, risk of low inter-rater reliability, and the exclusion of studies not available in English.			
Examining the efficiency of interventions aiming to decrease stigma around mental health conditions (39)	This review analyzed the effectiveness of numerous interventions that had the goal of reducing stigma related to mental health conditions. The review ultimately examined 16 studies to include. The review found that the interventions that were most effective at decreasing stigma around mental health conditions were educational and contact-based strategies. These strategies facilitated the most notable improvements in the destigmatization of mental health conditions by facilitating positive changes in knowledge, attitudes, and behaviours. Eleven studies targeted knowledge, thus aiming to help people identify mental health problems and gain knowledge on potential treatments; the review found that 10 of the 11 studies showed a positive improvement on peoples' knowledge. The review also examined 14 studies that measured stigmatizing attitudes people showed towards others with mental health conditions. Nine of these reported improvements in these attitudes; however, the influence of these interventions on attitudes was mixed. Eleven studies aimed to change behaviour so it was more affirming and less stigmatizing/discriminatory towards people with mental health concerns. Ten of the studies showed significant improvements in behaviour upon partaking in the intervention. Importantly, the review also identified some possible spaces for future research including a need for research that examines the cost-effectiveness of stigma-reduction interventions. Furthermore, the study cites a plan for the construction of special stigma-reduction programs for adolescent and elderly peoples. Finally, the importance of conducting interventional studies from different cultures is noted; the authors suggest there is a need to evaluate and design cross-cultural interventions in order to make sure programs are culturally relevant.	2008	6/10 (AMSTAR rating from McMaster Health Forum)	Not available
Evaluating educational interventions aiming to reduce stigma and increase awareness around mental health problems among adolescents and young people (43)	Destigmatizing mental health conditions is of paramount importance due to the disadvantages stigma causes for people living with a mental health condition. Importantly, stigma decreases the likelihood that people will access mental health services. Thus, since the review notes that young people have more negative perceptions of people with mental health conditions than adults, it is vital that programs looking to reduce stigma are targeted towards youth. Educational interventions – which include the three categories of direct contact (target group speaking to someone with a mental health conditions), indirect contact (target group interacting with someone with a mental health condition through videos or computer programs), and explanation about people with mental health conditions by professionals – are often implemented with the goal of reducing stigma. This review had the goal of examining, categorizing and identifying potential issues with different educational programs. In order to do this, the review examined 40 different studies, 21 of which addressed university/college students (including medical, nursing and psychology students) and 18 of which targeted school-aged youth under 18 years of age. One study included both groups.	2009	5/10 (AMSTAR rating from McMaster Health Forum)	Not available

	When examining the different educational interventions, numerous improvements were noted. Eighteen out of 23 studies that measured participants' knowledge about people with mental health issues demonstrated significant increases in knowledge. Twenty-seven of the 34 studies that assessed people's attitudes towards mental health problems also showed positive changes. Twenty studies examined the change in social distance, 16 of which found positive effects. Five studies also examined participants' self-awareness regarding their own mental health, and two found significant increases in participants' help-seeking intentions or knowledge. While only one study examined behavioural change, it did cite positive, de-stigmatizing effects. Importantly, six studies suggested that in conducting follow-up research, it became clear that maintaining these destigmatizing attitudes, knowledge and social distance was a challenge Numerous studies also evaluated the disparities between the impact of direct contact, indirect contact, and educational interventions on stigma reduction. In general, contact-based interventions – direct or indirect – were more effective in promoting positive attitudes and reducing stigmatization regarding people with mental health conditions. That being said, direct-contact interventions were generally more effective than indirect contact using a video. While indirect-contact interventions using video did show efficacy, the authors suggest more research needs to be conducted on the particular components and features of the videos shown. Though contact-based interventions were more impactful in decreasing stigma, generally, educational-based interventions also had some – albeit more limited – positive effects. Importantly, for all three types of interventions, more research must be conducted on the long-term effects of the interventions in order to better evaluate their impacts on stigmatization.			
Analyzing telehealth interventions that disseminate electronic healthcare information in regards to substance-use disorders (27)	Telehealth involves the disseminating of electronic health and healthcare information to people through the internet, thus quickly transmitting data, audio and images between individuals. Telehealth presents a large window of opportunity for addictions interventions as it allows programs to overcome challenges of scope that conventional interventions face; conventional interventions, though effective, are inhibited by the limited number of professionals who can conduct them and the stigma people may face to accessing the services provided by these interventions. Telehealth, on the other hand, presents a possible alternative by providing education to many people at once, digitally, rather than in person. This review included 151 studies that examined the effectiveness of telehealth-based interventions. These studies were focused on substance-use disorders and/or addiction disciplines including smoking (78 studies), alcohol (39), illicit drug use (10), and gambling (3). Notably, 15 of the studies were review articles. The telehealth interventions evaluated had different characteristics. In terms of distribution, the telephone, the internet, the computer/CD-rom, and videoconferencing were all utilized. Internet applications were common for education around alcohol and smoking and were often targeted at post-secondary students. These internet programs had good outcomes for students already using – though they were not as effective as primary interventions. However, internet programs were more successful if they were more individualized and longer/more frequent. Internet applications were also beneficial if added on to other interventions. Similarly, computer-based programs were also targeted towards a younger, student demographic. These programs were more beneficial for students who already used substances than as a form of primary	2010	5/10 (AMSTAR rating from McMaster Health Forum)	Not available

	prevention. These programs were beneficial, with 16 out of 22 studies showing a positive impact on students. Unlike computer and internet telehealth programs, telephone programs did not focus on young adults. Twelve out of 13 telephone programs were effective and showed positive outcomes. These interventions were primarily voice calls; however, text messaging has become more common in recent years, though there is very little literature on this. This review concludes that telehealth applications – through the internet, computer, and telephone – for alcohol and smoking addictions are as efficacious as conventional services. In order to evaluate the impact of telehealth interventions on illicit drug and gambling addictions, more research would need to be conducted. Furthermore, at this point, there is not adequate literature to conclude that telehealth interventions are more cost-effective than their conventional counterparts.			
Evaluating the impact of prevention and early intervention strategies on improving post-secondary students' mental health (52)	This review aimed to examine the evidence around prevention and early intervention around mental health problems – specifically depression, anxiety and alcohol misuse – for post-secondary students. The authors note stigma and attitudes around mental health conditions as being a potential barrier to enhance help-seeking behaviours for higher-education students. The review examined 11 interventions that specifically addressed depression and anxiety prevention and early intervention. There were three individual-level interventions identified with different results: cognitive-behavioural interventions were effective for prevention and early intervention; online support-group interventions were not found to increase positive outcomes; and educational/personalized feedback interventions had mixed levels of effectiveness. Population-level interventions included social marketing interventions which use marketing techniques to improve public-health targets. This intervention could promote increases in knowledge around depression (though this conclusion was only drawn from a single study). Many studies provided an evaluation of interventions to prevent alcohol misuse. Four types of individual-level interventions were identified with different efficacies: educational/informational approaches do not change consumption meaningfully alone; social-norms interventions are effective both when the intervention is online or is face-to-face; cognitive-behavioural/skill-based interventions are potentially effective, but the literature around these interventions is sparse; and motivational/feedback-based interventions are effective. On a larger scale, there were two population-level interventions identified: social-norm intervention campaigns have mixed effectiveness; and environmental interventions may have some benefit, but more research is needed. The study also cites self-help approaches and peer support from family and friends as important interventions for mental health issues. Finally, the review suggests that awareness campaigns aimed to improve mental health literacy may work to destigmatize mental health and substance-use disorders.	2010	3/10 (AMSTAR rating from McMaster Health Forum)	Not available
Examining the efficacy of public	Internationally, suicide prevention is a public health priority and can be addressed through improved awareness of suicide itself, and depression. Importantly, high levels of stigmatization and a general lack of	2010	5/10 (AMSTAR	Not available

awareness campaigns that aim to disseminate information about and decrease stigma around depression and suicide (51)	awareness around depression act as barriers that prevent individuals from accessing care and social support. Thus, this review aims to assess the effectiveness of public awareness campaigns that strive to decrease these barriers. This review examined 43 publications that evaluated public information and awareness programs that address suicide and depression. Amongst the publications, 15 programs were evaluated and could be classified into short media campaigns (involving a single exposure), gatekeeper training programs, and long programs (involving repeated exposures, conducted nationally or locally). The programs aimed to increase the public's knowledge of depression/suicidal crises and reduce stigma surrounding mental health problems. Upon reviewing the different programs, public awareness and information programs about suicide and depression were demonstrated to improve knowledge and awareness in the short term. Furthermore, the review showed that most campaigns contributed to destigmatization by having a positive impact on public attitudes towards those with mental health conditions. That being said, some studies suggested the impact of the programs was limited. While positive changes in knowledge and attitudes were noted for some studies, these changes were modest (while still being significant). Furthermore, few studies documented a significant increase in public knowledge of where treatment and further information regarding mental health could be attained. For example, only three of the 15 programs showed an increase in professional care-seeking behaviour. Three studies evaluated program impacts on suicide rate trends, and while two showed no significant changes, one significantly reduced suicidal behaviour. The efficacy of the program depended on different program characteristics. Utilizing multiple different strategies – for example, incorporation of educational material, a media campaign, and training gatekeepers/health professionals – in tandem was associated with more positive outcomes than using one strategy alone. It is also beneficial to use a variety of mediums to disseminate messages, for example using television, print media, and billboards. When disseminating information, programs should also focus on being clear, specific, and involving people with mental health conditions if possible, as this can help to decrease stigma. Furthermore, while national campaigns address a larger sector of the population, local programs are more effective as they cater to a specific population that is smaller and more homogeneous. Gatekeeper training is advantageous in this regard as it can be implemented with positive effects on a local scale. It is also important for programs to target only one mental health condition at a time, because illnesses are very different in their characteristics and treatment.		rating from McMaster Health Forum)	

Appendix 2: Summary of findings from primary studies about approaches to address stigma associated with substance use

Focus of study	Study characteristics	Sample description	Key features of the intervention(s)	Key findings
Examining web-based training on substance-use-disorder stigma for healthcare workers (30)	*Publication date:* 2019 *Jurisdiction studied:* Kenya, Africa *Methods used:* Mixed methods	The intervention was tailored for community health-care workers, registration officers and receptionists in private facilities. 99 healthcare workers participated in one of two courses. Further details were not provided.	Two online-based training courses with peer activities and local mentorship were designed. One course was for Lay Healthcare Workers, which focused on screening, stigma, interventions and communication. The other course was for Primary Care Practitioners, which included the same components, but added managing best practices in care. Each trainee was assigned a local mentor (psychologist or physician). Peer and mentored activities, discussion forums, and role-playing exercises were key components of the intervention.	Examining participants who completed a stigma survey, the study found that pre- to post-training stigma scores were not significantly different among those who did not complete the course. Among participants who did complete the course, stigma toward people with tobacco-use disorder and other substance-use disorders decreased significantly. However, stigma toward those with alcohol-use disorders did not significantly change. Examining participants who completed a course evaluation, the study concluded that a majority of participants preferred the online delivery of this course over a traditional classroom setting. They stated they would recommend it to their peers and felt confident that they gained knowledge. Compared to lay workers, primary-care workers needed less study support, but a smaller proportion of them completed the training. Although the study concluded that web-based training courses could teach knowledge and skills while reducing stigma in low-resource settings, the study methodology was not explicitly detailed, and no limitations were discussed.
Examining a tool to assess stigmatizing attitudes among healthcare professionals in Chile (57)	*Publication date:* 2019 *Jurisdiction studied:* Chile *Methods used:* Self-administered questionnaire	The study sample included 803 participants from 34 public primary health-care clinics in Chile.	The study aimed to assess and validate the Opening Minds Scale for Health Care Professionals (OMS-HC) among staff and providers in public Chilean healthcare clinics. Lower scores on the OMS-HC signified less stigmatizing attitudes. The study also aimed to examine differences in stigma by socio-demographic characteristics.	The study found that participants with personal experience with mental health conditions or a substance-use disorder, and participants with additional training in mental health had significantly lower OMS-HC scores. The study concluded that training in stigma and interactions with those with mental health problems could be a viable strategy for intervention to reduce stigma.
Examining an intervention designed in collaboration with	*Publication date:* 2019 *Jurisdiction studied:*	137 people participated in the survey and five	The intervention was developed in collaboration with community healthcare centres to reduce stigma related to mental health conditions and	The study found that the intervention was effective in changing attitudes toward mental health conditions (through a decreased OMS-HC score) and substance-use disorders (through a reduction in social distance from heroin users).

primary healthcare centres to reduce stigma related to mental health conditions at an organizational level (53)	Toronto, Canada *Methods used:* Mixed methods; a cross sectional questionnaire (using seven different scales) and qualitative interviews	management staff were interviewed. The intervention was created in collaboration with three primary healthcare centres in Toronto serving vulnerable populations. The process of designing, implementing and evaluating the intervention lasted five years.	substance-use disorders at an organizational level. The resulting intervention included: • site-based teams of local champions; • contact-based training with individuals with lived experienced; • awareness campaigns among providers and the general public; • recovery art workshop to facilitate sharing, listening and reflecting among clients and staff; and • review of internal policies and procedures for stigmatizing practices.	The study also concluded that qualitative findings were indicative of improvements in mental health knowledge and behaviour, with significant post-intervention improvements in the disclosure of mental health or addiction. The study suggested that competing demands for time and resources were significant limitations. Managers overwhelmingly found the surveys to be time consuming and strongly recommended changing the tool for future interventions. Community health centres expressed a desire to continue with only certain components of the intervention; the team of champions, the art workshops, and the policy reviews. Overall, the study faced large amounts of missing data and a high refusal to participate.
Examining knowledge-translation resources to address stigma related to sexuality, substance use and sexually transmitted and blood-borne infections (34)	*Publication date:* 2018 *Jurisdiction studied:* Canada *Methods used:* Mixed methods	20 interviews were conducted with key informants from various disciplines (education, research, health promotion, medicine, social work, law, nursing and pharmacy). Over the span of three years the Canadian Public Health Association (CPHA) partnered with various professionals and organizations to develop knowledge-translation (KT) resources and training workshops.	After completing a literature review, an environmental scan and interviews, the CPHA developed four knowledge-translation resources; a self-assessment stigma tool, a service-provider discussion guide, a toolkit related to privacy, confidentiality and criminalization, and an organizational assessment tool. Components were drafted and reviewed by service providers and individuals affected. These resources were integrated into three subsequent training workshops to address stigma related to substance use, sexually transmitted infections and blood bone infections. These workshops were piloted and evaluated using postworkshop questionnaires.	The study found that the vast majority of participants noted increased awareness of various forms of stigma, comfort in discussing sexuality, substance use and harm reduction with their clients/patients, awareness of organizational strategies to reduce stigma, and ability to integrate workshop learnings into practice (all results saw >85% of participants recording these responses). Although the study concluded that incorporating these evidence-based resources into training workshops could be effective in improving service-provider capacity to reduce stigma, there were some notable limitations. The post-workshop measurement was only focused on immediate changes to attitudes and knowledge, with no assessment of practice change or longer term follow-up.

Examining an intervention to reduce stigma towards persons at risk in sex work (32)	*Publication date:* 2015 *Jurisdiction studied:* Ontario, Canada *Methods used:* Qualitative interviews	Interviews were conducted with current and former female street sex workers enrolled in the Persons at Risk program (PAR) in London, Ontario, Canada.	This study aimed to evaluate the model of care of the PAR program on its ability to improve access to healthcare and essential police services. The PAR program began as a tracking service for women, but evolved into offering direct access to a police officer at any time. Officers could facilitate contact between the women and their families and offer streamlined access to addiction treatment.	The study indicated that participants reported initially avoiding healthcare workers and police officers because of fear of stigma or repercussions. All participants identified that the harm-reduction approach of the PAR program as the main reason why they remained engaged. Other important aspects identified by participants included flexible hours, the clinic location, streamlined access to treatment and the female gender of the police and healthcare worker.
Evaluating a social media campaign to improve awareness and attitudes of young people towards mental health issues (54)	*Publication date:* 2012 *Jurisdiction studied:* B.C., Canada *Methods used:* Questionnaire and website analytics	Participants included residents of B.C., Canada who were English speaking and 13–25 years of age. Two samples were collected immediately before (T1) or two months after (T2) the launch of a media campaign. Participants completed an online questionnaire.	A two-month social media campaign was designed to: a) increase mental health awareness through prompting visits to an interactive, educational, youth-focused website (mindcheck.ca); and b) to improve attitudes and behaviours towards mental health issues. The campaign featured a two-minute video of a famous male sports figure talking about mental health, a teammate who struggled with mental health, and promoting mindcheck.ca. Market penetration, attitudinal changes, and behavioural changes were measured using the online questionnaire, and website analytics were used to evaluate utilization of the website (mindcheck.ca).	The study found an increased utilization of the mindcheck.ca website after the campaign launch (which was used as a proxy for increasing mental health awareness). The proportion of survey respondents who were aware of the website increased significantly from 6.0% to 15.6 %, and there was a 1,531% increase in website visits after the first week of the campaign. The campaign's aim to improve behaviour and attitude towards mental health issues was not achieved. Scores on personal stigma and social distance did not significantly change between T1 and T2. Furthermore, there were no significant differences reported in the following behaviours: discussing mental health issues with others, making an effort to learn about signs/symptoms of mental health issues, or helping someone beginning to experience mental health issues. The article recognized that the study did not allow individual-level comparisons, where individual changes could be observed, and moderator variables could be assessed.
Assessing the impact of a national program for healthcare providers to reduce stigma towards people with mental health conditions (58)	*Publication date:* 2017 *Jurisdiction studied:* British Columbia, Ontario, Nova Scotia *Methods used:* a pooled analysis of six different program	1,429 participants from two hospitals in B.C., two hospitals in Ontario, one community health centre in Ontario and one hospital in N.S. took part.	Social contact through in-person (including small group conversations) and video stories (featuring people with lived experience of mental health conditions) Personal commitments to anti-stigma	Overall, attitudes and behavioural intentions towards people with mental health conditions improved from pre- to post-intervention. Sessions that used intensive social contact-based approaches showed more sustained positive change at three-month follow-up. Outcomes did not differ by occupational group. Higher stigma at baseline and younger age were associated with greater levels of positive change.

	implementations from BC, ON, and NS were conducted. The data were evaluated through a non-randomized quasi experimental pre-post design.		Refresher sessions to reinforce important takeaways and promote long-term attitude change (for some of the groups)	Some limitations of this study included the lack of a randomization, small sample size and high rates of attrition.
Identifying structural factors contributing to the stigmatization of people in hospital emergency departments who are users of illicit drugs and have hepatitis C (HCV) (32)	*Publication date:* 2013 *Jurisdiction studied:* Nova Scotia *Methods used:* a qualitative study; individual interviews were conducted.	50 service providers in community organizations or emergency departments of hospitals that serve people who use illicit drugs and are HCV positive	Communication protocols in which staff would first introduce patients by descriptions of who they are before briefing what happened Elimination of a flagging system that designates someone as a "drug seeker" Improved privacy in hospital emergency departments during conversations with triage staff	The majority of participants expressed that the way in which details about patients' drug use and HCV status are disclosed influenced the degree of stigmatization. Similarly, flagging systems that pre-identify people as "drug-seeking" were reported to increase stigmatization. Furthermore, the lack of privacy from the spacial design of emergency departments and the unpredictability of wait times were also contributors to stigmatization. Other stigmatizing factors included the lack of clinical expertise of staff, and time constraints placed on emergency departments that reduces tolerance towards someone perceived to be "drug seeking" and "bothersome."
Examining the underlying value tensions that influence ethical nursing practice and equity in accessing care for people experiencing homelessness or substance-use disorders (33)	*Publication date:* 2008 *Jurisdiction studied:* not-specified (although most likely Canada) *Methods used:* a qualitative ethnographic study; face-to-face interviews and participant observations were conducted.	26 participants (13 nurses, four people who have lived experience with homelessness and substance use, and nine other healthcare team members) across two primary healthcare centres and one emergency department	• Adopting a harm reduction approach to care that shifts the focus from fixing people to minimizing harm Sharing the responsibility of caring for individuals who are more challenging between many team members	Some nurses in emergency departments indicated their primary focus in the clinic had always been to quickly fix patients' problem. However, mental health and substance-use disorders are not amenable to quick fixing. The resulting frustration left some nurses with a sense of failure. A harm-reduction approach to care shifted the focus from fixing people to minimizing harm, including social harm. All participants reported concerns about some people being treated as "less than human" in care settings. Participants who have lived experience with homelessness or substance-use disorders expressed a desire to be treated as real people in care interactions. In addition, balancing equitable access to healthcare with threats to personal safety was another challenge. The authors note that while harm reduction can enhance access to care, it is not sufficient to address inequities in healthcare.
Analyzing language use to reduce stigma	*Publication date:* 2019	Three stakeholder groups were included in the	Research has shown that language regarding substance-use disorders can affect biases amongst health	Among people in recovery, family members, and professionals, certain words and phrases stood out as being particularly negative and positive. The authors list 10 stigmatizing and 10

within health-education interventions (28)	*Jurisdiction studied:* U.S. (digital; participants from across the country) *Methods used:* Exploratory Delphi method study through surveys online	study: individuals in recovery from substance-use disorders, impacted family members and loved ones, and professionals in the treatment field. In total, there were 45 participants, 15 from each stakeholder group. Participants were self-selected.	professionals, substance users, and others. Language choice can influence policy, diagnosis, help-seeking behaviour, and recovery. This study aimed to identify the positive empowering words and the negative stigmatizing words in order to promote more constructive language use.	empowering words for each category of participant. People in recovery cited words like "crackhead", "junkie", and "addicts" as the most stigmatizing, and "person in long-term recovery", "person in recovery", and "person/people" as the least stigmatizing. Family members perceived "junkie", "dope fiend", and "addict" as negative terms, and "long-term recovery", "person with a substance-use disorder", and "honest" as positive terms. Amongst professionals, "junkie", "dope fiend", and "addict" were seen as promoting stigma, while "person/human being", "person in recovery", and "recurrence of symptoms" as terms that reduce stigma. Generally, person-first language (referring to the person first and the disorder or characteristic second) was less stigmatizing. Importantly, commonly used language like addict and alcoholic were considered negative. While there were some differences in the language deemed stigmatizing among the stakeholder groups, they did identify many of the same terms in the positive and negative lists. The study articulates the effects of stigmatizing language, citing the way in which language holds political and social power in society. Language can contribute to the stigma faced by people affected by substance use by affecting access to care, quality of care, policy, and political willpower. Importantly, there were numerous limitations to the study. Firstly, it was a small sample size and the participants were self-selected. Furthermore, there was a lack of racial, class and gender diversity within the participants. The authors provide some guidelines on how further research could tackle the topic of language in regards to substance use. For example, the study suggests more research should be done on the way individuals in recovery may self-identify with terms they see as stigmatizing when others ascribe it to them.
Assessing an online training module for medical residents which aims to decrease stigma	*Publication date:* 2019 *Jurisdiction studied:* Weill Cornell	46 residents of psychiatry and internal medicine partook in the initial questionnaire; 29 participated in the	Medical residents consistently engage with patients with substance-use disorders; however, while medical education focuses on knowledge- and skills-based outcomes, it needs to focus more on decreasing the stigma	The study utilized Medical Condition Regard Scale (MCRS) to evaluate the changes in residents' perspectives around alcohol-use disorder and opioid-use disorder. The study found improvements in medical students' attitudes towards individuals with alcohol and opioid-use disorders after six months of engaging in the online training module. Notably,

related to substance use (29)	Medical School (New York, N.Y.) *Methods used:* Web-based questionnaire	follow-up survey six months after. Most respondents were in their 20s.	around substance use. Persisting negative social attitudes regarding substance use can reduce the quality of patient care due to factors like lower provider empathy and decreased provider involvement. The study created online modules that aimed to address the stigma by providing medical residents with education. The module aimed to convey the way in which physicians tend to have more negative attitudes towards people with substance-use disorders rather than people with other physical or mental disorders. The module hoped to explain how these attitudes stem from common social perceptions of substance use as a moral failure, rather than a brain disease. The module also showed videos of individuals in recovery from substance-use disorders where these individuals spoke of their lived experience with physicians. Finally, the module provided viewers with a variety of resources with more information on treating people with substance-use disorders.	these positive shifts in attitude were larger for opioid use, rather than alcohol use. Importantly, the improvements in MCRS scores as a result of the six-month educational intervention were greater than the improvements in MCRS scores from medical school clerkships on addiction. Specifically, this educational intervention increased resident awareness of how they may hold their own negative biases against patients with substance-use disorders. Since the shifts in attitudes remained stagnant six months after the intervention, it suggests that the modules may have succeeded in shifting attitudes in the long term.
Investigating whether beliefs about addiction being a 'disease' or 'brain disease', and holding beliefs about the causes of addiction are associated with public perceptions about those	*Publication date:* 2014 *Jurisdiction studied:* Queensland, Australia *Methods used:* Computer-assisted telephone interview	1,263 in the State of Queensland, Australia were interviewed as part of the 2012 Queensland Social Survey, administered by the Population Research Laboratory at Central Queensland University Australia.	The Queensland Social Survey employed in this study was a large survey that included questions exploring beliefs about the causes of addiction, its treatment, the role of coercion and punishment, and stigma, discrimination and dangerousness. Survey participants rated their agreement on a five-point scale to each of seven possible causes of different types of addiction: 1) bad character; 2)	In terms of beliefs about treatment, there was strong support for all treatment modalities for those experiencing heroin and alcohol addiction. Participants were most likely to agree that a person should speak to family, friends, or attend a support group such as Alcoholics Anonymous or Narcotics Anonymous. There was somewhat less support for using prescribed medication. In terms of beliefs about coerced treatment, there was significantly greater support for forcing those experiencing heroin addiction into treatment than for forcing individuals into treatment for an alcohol addiction. Beliefs about whether

experiencing addiction, and support for different types of treatment, coerced treatment, and addiction punishment (46)		In comparison to the general Queensland population, participants over the age of 55 were over-represented and those under the age of 35 were under-represented.	addictive personality; 3) psychological problems; 4) chemistry in the brain; 5) the way someone was raised; 6) stress; and 7) a genetic or inherited problem. Participants were also asked about the extent of their agreement with the statements that various types of addiction are diseases or brain diseases. Participants then rated their beliefs about the value of different treatment modalities for addiction on a four-point scale, including speaking with a doctor or psychiatrist, taking medications, visiting a mental health worker, and seeking support from close family friends or peer support groups. Survey participants were also asked to rate their agreement on questions related to coerced treatment for heroin and alcohol use, and imprisonment for heroin addiction, on a five-point scale. Finally, stigma, discrimination and dangerousness were measured using a variation of the Attitudes to Mental Illness Questionnaire (AMIQ), a validated five-question tool for evaluating stigmatizing attitudes towards individuals with mental illness and addiction.	addiction was a disease or a brain disease were not associated with support for coerced treatment. However, participants who agreed that alcohol addiction was caused by personal qualities were 1.71 times more likely to agree that those experiencing alcohol-use problems should be forced into treatment. With respect to beliefs about imprisonment of addicted persons, approximately one-third of the sample agreed that heroin addiction should lead to imprisonment. Agreement that addiction had biological causes was not significantly associated with support for imprisonment. People who agreed that heroin addiction was caused by personal qualities were 2.3 times more likely to agree that individuals experiencing heroin-use problems should go to prison. The majority of survey respondents believed that those experiencing substance use would suffer career damage, relationship problems, and that they would be likely to get into trouble with the law. In general, people viewed the heroin-addicted person more negatively than the alcohol-addicted person. However, persons with more familiarity with alcohol addiction were more comfortable with an alcohol-addicted person. The same was the case for those who agreed that alcohol addiction had biological causes. On the contrary, people who agreed that alcohol addiction was caused by personal qualities were less likely to feel comfortable with an alcohol-addicted person. Different factors predicted the level of comfort people felt with a heroin-addicted person. For example, females were less likely to report feeling comfortable with a heroin-addicted person, while those who agreed that heroin addiction had social-environmental causes were more likely to feel comfortable with a heroin-addicted person. Of note, beliefs that addiction is a 'disease' or a 'brain disease' were not associated with reductions in beliefs about stigma, coercion or punishment. Also, beliefs in different causes of addiction were inconsistent predictors of beliefs about stigma, coercion or punishment.

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