McMaster University | HEALTH FORUM

Evidence brief appendices

Supporting the evidence-based use of cannabis for chronic pain in Canada

21 June 2023

Appendices

Appendix 1: Background and methods for preparing the evidence brief

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

The preparation of the evidence brief involved six steps:

1) convening a Steering Committee composed of representatives from the partner organization (and/or key stakeholder groups) and the McMaster Health Forum
2) developing and refining the terms of reference for an evidence brief, particularly the framing of the problem and four viable approach elements for addressing it, in consultation with the Steering Committee and a number of key informants, and with the aid of several conceptual frameworks that organize thinking about ways to approach the issue
3) identifying, selecting, appraising and synthesizing relevant research evidence about the problem, approach elements and implementation considerations
4) conducting a jurisdictional scan across Canadian provinces and territories to identify policies and programs focused on cannabis for medical purposes (both at the level of governments, and at the level of professional regulatory bodies and associations)
5) drafting the evidence brief in such a way as to present concisely and in accessible language the global and local research evidence
6) finalizing the evidence brief based on the input of several merit reviewers.

The four approach elements for addressing the challenges were not designed to be mutually exclusive. They could be pursued simultaneously or in sequence, and each approach element could be given greater or lesser attention relative to the others.

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

Being aware of what is not known can be as important as being aware of what is known. When faced with an empty synthesis, substantial uncertainty or concerns about quality and local applicability or lack of attention to equity considerations, primary research could be commissioned. Alternatively, an approach element could be pursued and a monitoring and evaluation plan designed as part of its implementation. When faced with a synthesis that was published many years ago, an updating of the review could be commissioned if time allows. No additional research evidence was sought beyond what was included in the evidence syntheses. Those

interested in pursuing a particular approach element may want to search for a more detailed description of the approach element or for additional research evidence about the element.

Appendices 6-9 provide detailed information about the evidence syntheses identified that relate to each of the approach elements. In the first column we list the focus of the search and/or approach sub-elements that shaped the search (if applicable), and provide hyperlinks to the search strategies used, as well as the breakdown of identified syntheses for each sub-element according to their quality. In the second column, we provide a hyperlinked 'declarative title' that captures the key findings from each synthesis. Columns 3-6 list data related to the criteria that can be used to determine which reviews are 'best' for a single category (i.e., living status, quality, last year literature searched, and availability of a GRADE evidence profile, which provides insights about the strength of the evidence included in a particular synthesis), column 7 includes data about equity-related groups that are addressed explicitly by the synthesis, and column 8 highlights the type of questions addressed by each synthesis.

As noted above, the fourth column presents a rating of the overall quality of the review. The quality of each review has been assessed using AMSTAR (A MeaSurement Tool to Assess Reviews), which rates overall quality on a scale of 0 to 11, where 11/11 represents a review of the highest reporting 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 evidence syntheses 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.)

Appendix 2: Overview of policies and programs focused on the use of cannabis for medical purposes in Canada

Jurisdiction	Policies	Programs covering the cost of 'medical cannabis'	Other programs
Federal/pan-Canadian	• The *Marijuana Medical Access Regulations (MMAR)*, 2001 enabled individuals to access dried marijuana for medical purposes with the authorization of their healthcare provider ○ Individuals could produce their own marijuana plants, purchase supply from Health Canada, or designate someone to produce them • The *Access to Cannabis for Medical Purposes Regulations (ACMPR)* replaced the MMAR in August 2016 to expand Canadians' legal access to cannabis for medical purposes through increasing the number of licensed producers • The *Cannabis Act* and *Cannabis Regulations* came into effect on 17 October 2018 not only to legalize non-medical cannabis nationally but also to consolidate regulations regarding medical and non-medical cannabis • Individuals can register to produce or possess cannabis for medical use through Health Canada • Canada has Lower-risk Cannabis Use Guidelines that define 10 ways to reduce risks when using cannabis • No province or territory in Canada has put minimum pricing policies in place for cannabis and cannabis products, even though most maintain some level of price control via government-operated retail stores	• Veterans Affairs Canada's Cannabis for Medical Purposes reimbursement policy covers up to 3g per day of cannabis for veterans who are authorized to use cannabis for treating a number of conditions by their physician • Canada Revenue Agency allows the costs of medical cannabis purchased from a licensed holder to be claimed as an allowable medical expense on income tax returns • Some group insurers also have a medical cannabis program that provides coverage for medical cannabis used as treatment for certain conditions	• Health Canada funds research through the Canadian Institutes of Health Research (CIHR) to inform policy, practice and use of cannabis • Cannabis education resources are provided on the federal government's website for health professionals, parents, youth and young adults, Indigenous peoples and communities, pregnant and breastfeeding individuals, and teachers and educators • Resources include educational videos, factsheets and information pages about the Canadian cannabis legal system and the safe use of cannabis
British Columbia	• The *Cannabis Control and Licensing Act* was enacted to promote health and safety, protect children and youth, and keep the criminal element out of cannabis in the province • The *Cannabis Distribution Act* established a monopoly on public wholesale, government-run retail sales in store and online • BC Liquor Distribution Branch operates public retail stores and an online store for cannabis	• None identified	• The BC government offers free webinars on their website for businesses and communities to understand the cannabis regulatory framework
Alberta	• Bill 26: *An Act to Control and Regulate Cannabis* was passed 30 November 2017 to give the Alberta Gaming, Liquor and Cannabis Commission (AGLC) the authority for oversight and licensing of cannabis in Alberta, and to enable online sales of cannabis • Applications for cannabis retail licenses started being accepted by the AGLC in March 2018	• None identified	• Alberta Health Services maintains a website that provides information on drug safety when using cannabis

Jurisdiction	Policies	Programs covering the cost of 'medical cannabis'	Other programs
	• The Alberta Cannabis Framework was developed in 2018 after consultation with Albertans to expand on conditions for the responsible use of cannabis in Alberta		

Saskatchewan	• Healthcare providers are only allowed to prescribe medical cannabis to patients if they are the primary healthcare provider for the condition
	  ○ Patients and their primary treating healthcare provider must sign a treatment agreement consisting of medical and legal responsibilities related to the medical cannabis prescription
	  ○ Healthcare providers are not obligated to prescribe medical cannabis and it is up to the discretion of the provider
	  ○ Patients must choose a provider from Health Canada's list of approved medical cannabis providers and complete the registration application form, and will then receive a registration document for proof of official registration
	  ○ A prescription is required to obtain medical cannabis, produce a limited amount of cannabis for own medical purposes, and designate someone else to produce medical cannabis for the patient
	• Dosing guidelines have not been established but healthcare providers are recommended to follow the College of Physicians and Surgeons of British Columbia's *Professional Standards and Guidelines*
		• None identified	• Saskatchewan Health Authority provides online health information about medical cannabis

Manitoba	• Medical cannabis remains under the federal government's jurisdictions, however, Manitoba's *Smoking and Vapours Products Control Act* permits the use of medical cannabis in some public spaces with certain limitations • Although the Cannabis Act allows individuals to grow their own cannabis plants at home, Manitoba has banned homegrown cannabis plants for personal use within the province	• None identified	• None identified
Ontario	• Cannabis retailers in Ontario are regulated by the Alcohol and Gaming Commission of Ontario (AGLO) based on the Cannabis Retail Regulation Guide	• Effective 1 March 2019, the Workplace Safety & Insurance Board (WSIB), Ontario set out conditions for entitlement to medical cannabis as treatment when injured on the job. The worker must have a valid medical document or written order for cannabis and the quantity of dried medical cannabis (or its equivalent)	• None identified

Jurisdiction	Policies	Programs covering the cost of 'medical cannabis'	Other programs
		must not exceed three grams per day	
Quebec	• Since 1 January 2020, the minimum age to purchase or possess cannabis in Québec has been raised from 18 years to 21 years • Although the Cannabis Act allows individuals to grow their own cannabis plants at home, Québec has banned homegrown cannabis plants for personal use within the province, with fines for doing so running between $250 and $750 • Société québécoise du cannabis is a subsidary of the government-owned Société des alcools du Québec that sells cannabis for medical and non-medical purposes	• None identified	• Santé Cannabis is a medical cannabis clinical and research service centre that works to better integrate evidence-based medical cannabis treatments into the healthcare system through research and education for patients and providers o Offers patient service across Québec along with practical training for healthcare professionals o Clinical appointment fees are wavied with the presentation of a valid Québec health card, but products are normally not covered through public insurance
New Brunswick	• Cannabis NB, a subsidiary of the New Brunswick Liquor Corporation (ANBL), sells cannabis for medical and non-medical use	• WorkSafe NB can approve medical cannabis for injured workers with certain medical conditions o Cannabis must be supplied by a licensed producer and the maximum daily dosage is three grams	• None identified
Nova Scotia	• None identified	• None idenfied	• None identified
Prince Edward Island	• On 17 October 2018, the federal government passed the *Cannabis Act* as the primary regulation to govern medically-authorized cannabis use within the country and in the province o Health PEI strives to ensure a safe and healthy work environment within the province (including accommodating individuals living with a disability for medical cannabis prescriptions) • Individuals who are authorized users of medical cannabis will be required to adhere to the same rules and regulations under the *Smoke-Free Place Act* • As per the Access to Cannabis for Medical Purposes Regulations program, medical cannabis can only be purchased through one of the nine licensed producers in Prince Edward Island by the federal government through Health Canada	• Effective 25 October 2018, The Workers Compensation Board of PEI can approve medical cannabis for injured workers with certain medical conditions o Cannabis must be supplied by a producer approved by the WCB and the maximum daily dosage is three grams	• None identified

Jurisdiction	Policies	Programs covering the cost of 'medical cannabis'	Other programs
Newfoundland and Labrador	• As per the Access to Cannabis for Medical Purposes Regulations program, medical cannabis can only be purchased in Newfoundland and Labrador through one of the eight licensed producers by the federal government through Health Canada • Drivers (e.g., novice, under 22 years of age, or commercial) authorized to have medical cannabis under the Cannabis Act cannot drive while impaired, but are exempt from license suspensions or vehicle impoundments if THC is detected in their body	• None identified	• None identified
Yukon	• Medical cannabis regulations continue to be spearheaded federally by the Government of Canada	• As per the Access to Cannabis for Medical Purposes Regulations program, medical cannabis can only be purchased in Yukon through the one sole licensed producer by the federal government through Health Canada	• None identified
Northwest Territories	• As per the Access to Cannabis for Medical Purposes Regulations program, medical cannabis can only be purchased in the Northwest Territories through the one sole licensed producer by the federal government through Health Canada • In the Framework for Cannabis Legalization in the Northwest Territories, the provincial government noted that they will not play a role in its regulation and it will be overseen by the federal government	• None identified	• None identified
Nunavut	• None identified	• None identified	• None identified

Appendix 3: Summary of recommendations from the new evidence-based clinical practice guideline on cannabis for medical purposes and chronic pain*

Recommendation	Additional considerations
1) If standard care is not sufficient, the panel suggests offering a trial of cannabis for medical purposes compared to continued care without cannabis in people living with chronic cancer or non-cancer pain *(conditional recommendation)*	Shared decision-making is required to ensure that patient's decision whether or not to trial cannabis for medical purposes reflects their values and preferences
2) The panel suggests offering non-inhaled compared to inhaled cannabis for medical purposes to people living with chronic cancer or non-cancer pain in whom the decision has been made to offer a trial of cannabis for medical purposes *(conditional recommendation)*	Patients may prefer inhaled forms of cannabis for medical purposes to manage episodic pain, due to the faster onset of action versus non-inhaled methods of administration Patients who wish to trial an inhaled cannabis product may prefer use of a vaporizer with whole plant products compared to smoking, given the potential for reduced pulmonary harms
3) Among people living with chronic cancer or non-cancer pain currently using prescription opioids, and interested in reducing their use of opioids, the panel suggests offering cannabis for medical purposes compared to continuing care without cannabis for medical purposes (*conditional recommendation)*	Patients interested in reducing opioid use are those that either are well controlled on opioids but would like to try cannabis for medical purposes to reduce opioids and the associated potential adverse effects (e.g., addiction, opioid overdose) or those that are not satisfied with their experience on opioids (e.g., inadequate pain relief, adverse events) and would like to taper and try another management option
4) If standard care without opioids or cannabis is not sufficient among people living with chronic cancer or non-cancer pain, we suggest offering a trial of cannabis for medical purposes before a trial of opioids (*conditional recommendation)*	Feasibility and implementation considerations to account for include out-of-pocket costs borne by patients for cannabis products
Clinical statement topics (insufficient evidence to forumulate recommendations)	
5) How to manage patients using cannabis for medical purposes that need to drive or operate heavy equipment for work *(no recommendation possible given lack of evidence)*	To be drafted by clinical experts
6) How to taper patients off cannabis for medical purposes if they are not achieving important benefits, or if the associated harms exceed the benefits *(no recommendation possible given lack of evidence)*	To be drafted by clinical experts
7) How to incorporate the potential for development of cannabis use disorder when considering offering a trial of cannabis for medical purposes to people living with chronic pain *(no recommendation possible given lack of evidence)*	To be drafted by clinical experts

**Note: at the time of writing this evidence brief, the guidelines were undergoing public consultation and had yet to be published. Links to the guidelines through the public consultation survey can be found here*

Appendix 4: Summary of patient values and preferences identified in the new evidence-based clinical practice guideline on cannabis for medical purposes and chronic pain*

Patient values and preferences based on moderate- to high-certainty evidence
1) Patients valued the effectiveness of medical cannabis for symptom management and improved overall well-being and quality of life with a minority finding its use decreased their number of clinical visits and phone calls to physicians
2) Patients with chronic pain, including those with substance use histories, preferred medical cannabis over prescription opioids and other prescription medications
3) Younger age and a history of cannabis use were associated with a higher likelihood of substituting cannabis for prescription medications
4) Most patients preferred cannabis products with high CBD or balanced ratios of THC:CBD versus high THC. Females, novice users, patients with arthritis and rheumatic disorders, and those who endorsed use of cannabis for medical purposes only, were particularly inclined to choose products with low THC and high CBD ratios
5) Males, experienced users and patients who used cannabis both recreationally and medically, and used higher THC products, preferred smoking or vaporizing versus other modes of administration (oral, topical)
6) Most patients obtained cannabis for medical purposes from legal sources (commonly online or from medical cannabis dispensaries), but the majority would prefer to receive a prescription for cannabis from a physician
7) Many patients would prefer to receive more information about cannabis for medical purposes from their healthcare provider, but as this is uncommon, they mostly pursued self-directed research
8) Cannabis use was influenced by both positive social consequences (e.g., support from friends and family) and negative social consequences (e.g., stigma surrounding cannabis use)
9) Cost and accessibility of cannabis for medical purposes influenced patients' decisions to pursue treatment, and cost was the most common barrier for trialling non-smoked routes of administration
10) Healthcare providers who are uninformed or unwilling to discuss medical cannabis were identified as a barrier to cannabis use for medical purposes
11) Patients chose medical cannabis products mainly based on cannabinoid content, recommendations from dispensary employees, described effects (including side effects), smell and appearance
12) Although adverse events were frequently reported with medical cannabis, patients typically felt that they were not severe enough to discontinue use
13) Concerns about cannabis for medical purposes included addiction, tolerance, losing control or acting strangely, and were related to unwillingness to use cannabis
Patient values and preferences based on low-certainty evidence
1) Patients had mixed levels of comfort or willingness to use cannabis for medical purposes
2) Patients reported variation in the effectiveness of managing chronic pain symptoms depending on the cannabis product they use, and also felt overwhelmed by the choices available and noted that finding the right strain or product required experimentation
3) Many patients expected at least 25% pain relief from cannabis for medical purposes and were willing to spend up to $100 per month for cannabis
4) Most patients reported stable usage of medical cannabis over time, with almost no patients requiring a larger dose compared to when they initiated cannabis therapy
5) Patients selected dispensaries based on online reviews and discussions with friends and acquaintances

**Note: at the time this evidence brief was completed, the guidelines were undergoing public consultation and had yet to be published. Links to the guidelines through the public consultation survey can be found here*

Appendix 5: Overview of professional regulatory bodies' policies and programs focused on cannabis for medical purposes in Canada

Jurisdiction	Physician regulatory bodies and associations	Nursing regulatory bodies and associations	Pharmacist regulatory bodies and associations	Other regulatory bodies or associations
Federal/pan-Canadian	• The Canadian Medical Association (CMA) policy on medical marijuana recommends that additional research is needed into the use of cannabis for medical purposes as treatment and calls on the government to develop compulsory educational programs for physicians who authorize the use of cannabis	• The Canadian Nurses Association provides resources on their website to support the clinical practice of nurses	• The Canadian Pharmacists Association provides practice development resources to support pharmacists in Canada when advising patients about the use of medical cannabis	• None identified
British Columbia	• The College of Physicians and Surgeons of British Columbia has a Cannabis for Medical Purposes practice standard that describes the minimum standard of professional and thical behavior for registered physicians when prescribing cannabis to their patients	• Nurse practitioners in BC may provide a medical document or written order for medical cannabis, in accordance with the Cannabis Regulations • The Standards on Prescribing Drugs from the BC College of Nurses and Midwives requires nurse practitioners to ensure their competence when prescribing drugs that are within their scope of practice	• The BC Pharmacy Association offers education programs to pharmacists for when they are responding to inquiries from clients about using medical cannabis	• None identified
Alberta	• The College of Physicians and Surgeons of Alberta has a Cannabis for Medical Purposes practice standard that describes the minimum standard of professional and ethical behavior for registered physicians when prescribing cannabis to their patients	• The Cannabis for Medical Purposes standards from the College of Registered Nurses of Alberta outlines the expectations and accountabilities for nurse practitioners when prescribing cannabis to patients for medical purposes • Nurse practitioners must follow the prescribing responsibilities outlined in the *Prescribing Standards for Nurse Practitioners 2021*	• The Alberta College of Pharmacy has two written documents to support pharmacists in their practice: ○ Introduction to the *Cannabis Act* and its regulations • Guidance for pharmacists, pharmacy technicians, and pharmacy proprietors – Cannabis for medical purposes	• The College of Alberta Psychologists recommends that in cases where a client uses prescribed cannabis for medical purposes, a psychologist should respond in the same way they would with other prescribed medications
Saskatchewan	• The College of Physicians and Surgeons of Saskatchewan has established standards for	• The College of Registered Nurses of Saskatchewan determined that nurse practitioners can authorize	• None identified	• None identified

	prescribing cannabis to patients, which are written within Bylaw 19.2(a) *Standards for Prescribing Marijuana* • Physicians are expected to read the Health Canada's Access to Cannabis for Medical Purposes Regulations, CPSS Regulatory Bylaw 19.2, and other usual resources	the use of medical cannabis for patients		
Manitoba	• The College of Physicians and Surgeons of Manitoba (CPSM) established standards under the authority of section 82 of the *Regulated Health Professions Act* and section 15 of the CPSM Standards of Practice Regulation • Physicians can only authorize medical cannabis for patients under their professional treatment and if it is required for their patient's condition ○ Physicians must record how the patient meets these standards, relevant discussions, clinical reasons and rationale for amount authorized • Physicians can authorize but cannot be a licensed producer or dispenser	• While the Cannabis Regulations do not explicitly describe nurses and their authority, Manitoba's three nursing regulatory colleges interpreted that nurses are allowed to administer or assist with the administration of medical cannabis authorized for a patient in a community setting and inpatient or outpatient in hospitals • Nurse practitionners have the authority to administer medical cannabis as described above and are authorized to provide a medical document or written order to allow patients access to medical cannabis • Nurses must comply with certain regulations and policies before administering or authorizing medical cannabis (e.g., current legislation such as the Access to Cannabis for Medical Purposes Regulations (SOR/2016-230))	• Pharmacists Manitoba provides resources for health professionals related to medical cannabis	• None identified
Ontario	• The College of Physicians and Surgeons of Ontario (CPSO) developed policy guidance on medical cannabis, where physicians must comply with the requirements for prescribing cannabis within the policy, general expectations from the CPSO Prescribing Drugs policy, and any other relevant policies and legislation	• Nurse practitioners are allowed to authorize medical cannabis to eligible patients	• The Ontario College of Pharmacists developed the Cannabis Strategy for Pharmacy, as a resource to enhance knowledge and protect patients	• None identified

Quebec	• The Collège des médecins du Québec have stated that there should not be an option for patients to self-refer to the Société québécoise du cannabis (SQDC) to obtain medical cannabis, but rather it should only become available under the prescription of a physician	• None identified	• Association Québécoise des Pharmaciens Propriétaires (AQPP) advocates for pharmacists to monitor cannabis therapy and an amendment to the *Québec Cannabis Regulation Act*	• Société québécoise du cannabis is a subsidiary of the government-owned Société des alcools du Québec that sells cannabis for medical and non-medical purposes
New Brunswick	• The College of Physicians and Surgeons of New Brunswick has provided guidelines on medical marijuana for physicians	• The Nurses Association of New Brunswickprovided a practice guideline for Authorizing Medical Cannabis	• The New Brunswick college of Pharmacists released a position statement regarding recommendations for better integrating pharmacists into medical cannabis monitoring and distribution systems	• Cannabis NB, a subsidiary of the New Brunswick Liquor Corporation (ANBL), sells cannabis for medical and non-medical use
Nova Scotia	• The College of Physicians and Surgeons of Nova Scotia have released standards regarding the Authorization of Marijuana for Medical Purposes	• The Nova Scotia College of Nursing have released practice guidelines for Nurse Practitioners prescribing medical cannabis	• The Nova Scotia College of Pharmacists released a position statement on pharmacy practitioners' roles and responsibilities regarding cannabis, focusing on patient education, patient-centred drug therapy management, collaborative relationships with broader health teams, and the distribution of cannabis	• None identified
Prince Edward Island	• In November 2016, the College of Physicians and Surgeons of Prince Edward Island issued a policy on the prescribing of medical cannabis for patients	• In March 2020, a practical directive was published by the College of Licensed Practical Nurses of Prince Edward Island and the College of Registered Nurses of Prince Edward Island on how to care for authorized users of medical cannabis	• None identified	• None identified

		• On 27 May 2020, the College of Registered Nurses of Prince Edward Island published a policy document that highlights the requirements needed by nurse practitioners seeking to prescribe medical cannabis		
Newfoundland and Labrador	• As it relates to the dispensing of medical cannabis, an advisory and guideline released by the College of Physicians and Surgeons of Newfoundland and Labrador noted that physicians will need to issue a medical document to the patient, who can then make arrangements with a licensed producer to obtain medical cannabis	• In February 2019, the College of Registered Nurses of Newfoundland & Labrador published a document for nurse practitioners seeking to authorize the use of medical cannabis • The College of Registered Nurses of Newfoundland & Labrador issued a regulatory direction for registered nurses, licensed practical nurses and nurse practitioners seeking to support the administration and distribution of medical cannabis	• None identified	• None identified
Yukon	• The Yukon Medical Council has a standard of practice for the prescribing of medical cannabis by physicians • A key feature involves the physician having the ability to choose whether the symptoms and/or condition of the patient should be treated with cannabis alongside detailed documentation	• None identified	• None identified	• None identified
Northwest Territories	• In April 2021, the Government of Northwest Territories released guidelines for naturopathic doctors to help guide them in addressing inquiries related to medical cannabis	• None identified	• None identified	• None identified
Nunavut	• None identified	• None identified	• None identified	• None identified

Appendix 6: Evidence syntheses relevant to element 1 – Support individuals using cannabis for chronic pain to adjust their behaviours to align with newly prepared evidence-based guidelines

Searches conducted	Most relevant evidence syntheses to inform decision-making about the sub-elements	Living status	Quality (AMSTAR)	Last year literature searched	Availability of GRADE profile	Equity considerations (organized by PROGRESS PLUS categories)	Type of policy question addressed
Search 1, *Search 2*, *Search 3*, *Search 4*, *Search 5* *Total syntheses: Three (all of which are high quality)*	Despite early computerized brief interventions showing promise in reducing alcohol use in young people, there is no evidence to suggest its ability to affect the use of cannabis in this population (32)	No	11/11	2016	Yes	Personal characteristics associated with discrimination (e.g., age)	Selecting an option for addressing the problem
	Computerized interventions have been associated with significant reductions in the use of cannabis and other substances, primarily due to its cost-effectiveness, ability to be widely disseminated, and limited barriers to implementation (33)	No	9/11	2015	No	Not reported	Selecting an option for addressing the problem
	Cognitive behavioural therapy sessions (group and individual) were effective in treating cannabis dependency; however, given the heterogeneity of the reviewed studies, no clear conclusions could be drawn to demonstrate that psychotherapeutic interventions can be routinely used for cannabis dependency in outpatient settings (34)	No	10/10	2004	No	Not reported	Selecting an option for addressing the problem

Appendix 7: Evidence syntheses relevant to element 2 – Support primary-care providers and those working in multidisciplinary pain clinics to determine the best ways to integrate cannabis as a part of a comprehensive approach to managing chronic pain

Searches conducted	Most relevant evidence syntheses to inform decision-making about the sub-elements	Living status	Quality (AMSTAR)	Last year literature searched	Availability of GRADE profile	Equity considerations (organized by PROGRESS PLUS categories)	Type of policy question addressed
Search 1, *Search 2*, *Search 3* *Total syntheses: Six (of which four are medium quality and two are low quality)*	Pharmacists generally expressed feeling underprepared when discussing and/or dispensing medical cannabis to patients; further investments are needed to improve the uptake of resources and educate these health professionals (35)	No	5/9	2021	No	Occupation	Understanding a problem and its causes Identifying implementation considerations
	While most health professionals collectively support the use of medicinal cannabis in chronic pain management, they continue to have low prescribing rates due to a lack of evidence-based guidelines and formal training and their own clinical experiences (36)	No	3/9	2021	No	Occupation	Understanding a problem and its causes Identifying implementation considerations
	Although there is limited evidence surrounding the knowledge and perception of medical cannabis, European healthcare providers largely support its use for medical purposes; additional training is required for both licensed physicians and students to improve their understanding and awareness of cannabinoids (37)	No	5/9	2020	No	Place of residence Occupation	Understanding a problem and its causes Identifying implementation considerations
	While general practitioners and hospital physicians are open to the use of medical cannabis for patient demands, there continues to remain a noticeable gap in the degree to which these health professionals are convinced of its effects and are willing to prescribe (38)	No	4/10	2019	No	Occupation	Understanding a problem and its causes Identifying implementation considerations

Searches conducted	Most relevant evidence syntheses to inform decision-making about the sub-elements	Living status	Quality (AMSTAR)	Last year literature searched	Availability of GRADE profile	Equity considerations (organized by PROGRESS PLUS categories)	Type of policy question addressed
	A series of 19 recommendations of variable strength (weak or strong) and quality (low to moderate) were noted to indicate the moderate benefit that cannabinoid-based medicines can have in the management of chronic pain, comorbidities and symptoms of chronic conditions (39)	No	7/10	2019	Yes	Not reported	Understanding a problem and its causes Selecting an option for addressing the problem
	There is weak evidence to support the use of smoked cannabis, and it should only be prescribed in cases where patients with severe neuropathic pain have not responded to standard analgesics and synthetic cannabinoids (40)	No	0/9 (after assessment of authors' reported methods, this evidence synthesis did not meet the criteria for a systematic review)	2014	No	Not reported	Understanding a problem and its causes Identifying implementation considerations

Appendix 8: Evidence syntheses relevant to element 3 – Support high-volume authorizers of cannabis for medical purposes and medical advisors to align with the new guidelines on cannabis for the management of chronic pain when authorizing cannabis and approving these authorizations

Searches conducted	Most relevant evidence syntheses to inform decision-making about the sub-elements	Living status	Quality (AMSTAR)	Last year literature searched	Availability of GRADE profile	Equity considerations (organized by PROGRESS PLUS categories)	Type of policy question addressed
Search 1, Search 2, Search 3, Search 4, Search 5, Search 6, Search 7 *Total syntheses: 11 (of which five are high quality, five are are medium quality and one is low quality)*	Evaluation, policy or guidelines interventions resulted in a larger opioid prescription rate reduction compared with prescription drug monitoring program or state law (41)	No	9/11	2021	No	Not reported	Identifying implementation considerations
	Existing interventions to optimize medication prescription or usage in back pain have low-quality evidence of no impact, while peer-to-peer education alone does not lead to behaviour change, suggesting that organizational and policy interventions may be more effective (42)	No	9/11	2021	No	Not reported	Identifying implementation considerations
	The use of prescription drug monitoring programs by healthcare providers influences clinical decision-making and can lead to both intended and unintended outcomes for patients, indicating a need for further research to understand the impact on patient outcomes (43)	No	7/11	2021	No	Not reported	Identifying implementation considerations
	Multifaceted interventions may improve mental health screening when prescribing opioids, but confidence is low due to the absence of quality data, and additional rigorous trials are needed to support opioid prescribing recommendations (44)	No	8/11	2019	Yes	Not reported	Identifying implementation considerations
	Interventions to address the concerning low adherence of healthcare providers to risk management recommendations put forth by clinical practice guidelines for prescribing opioids for chronic non-cancer pain should prioritize the needs of people living with chronic pain and aim to reduce opioid misuse, overall availability of opioids, dose of opioid prescribed, and associated morbidity and mortality (45)	No	8/11	2019	No	Not reported	Identifying implementation considerations
	Primary care providers' chronic pain management strategies indicate similar opioid prescribing rates across provider groups, with the influence of patient characteristics and other provider characteristics largely unaddressed, emphasizing the need for an understanding of non-opioid approaches and research on the prescription of pharmacologic and non-pharmacologic mechanisms for chronic pain (46)	No	5/9	2019	No	Not reported	Identifying implementation considerations

Searches conducted	Most relevant evidence syntheses to inform decision-making about the sub-elements	Living status	Quality (AMSTAR)	Last year literature searched	Availability of GRADE profile	Equity considerations (organized by PROGRESS PLUS categories)	Type of policy question addressed
	Physicians face complex barriers to implementing guideline-based care for low-back pain, making it difficult to target interventions, and different combinations of domains are implicated for different behaviours across contexts and must be considered when designing interventions targeting domains such as social influences, beliefs about consequences and environmental context and resources (47)	No	8/9	2018	No	Not reported	Identifying implementation considerations
	Delivering face-to-face education to clinicians significantly improves opioid prescribing practices, reducing dosages and quantities and influencing avoidance of high-risk agents, routes and doses, but further high-quality studies are needed to evaluate all opioid formulations, measure intervention sustainability, and assess adverse effects (48)	No	7/10	2018	No	Not reported	Identifying implementation considerations
	Although prescription monitoring programs have been associated with a reduction in the overall prescription rates of Schedule II opioids, their impact on the appropriateness of use taking into consideration benefits, misuse and legal and illegal use remains unknown (49)	No	7/10	2016	No	Not reported	Identifying implementation considerations
	Smoked cannabis can be considered for severe neuropathic pain if pharmaceutical cannabinoids and standard analgesics have not worked, but it's not recommended for patients under 25, those with a history of psychosis, substance use disorder or cardiovascular or respiratory disease, or those who are pregnant or planning to be, and caution is advised for patients who smoke tobacco, have anxiety or mood disorders, or are taking high doses of opioids or benzodiazepines (40)	No	0/9 (after assessment of authors' reported methods, this evidence synthesis did not meet the criteria for a systematic review)	2014	No	Not reported	Identifying implementation considerations
	The review and monitoring of prescribed medicines by pharmacists may improve the clinical condition of patients and reduce drug costs, although inconsistent definitions made it difficult to interpret any changes in medication compliance or incidence of adverse drug reactions (ADRs), and further rigorous studies are needed to investigate the impact of these services on ADRs, quality of life and cost-benefit analyses (50)	No	6/10	1998	No	Not reported	Identifying implementation considerations

Appendix 9: Evidence syntheses relevant to element 4 – Support researchers, industry and other stakeholders to build the evidence needed for next-generation guidance and to continue optimizing the programmatic and regulatory environment for the appropriate use of medical cannabis

Searches conducted	Most relevant evidence syntheses to inform decision-making about the sub-elements	Living status	Quality (AMSTAR)	Last year literature searched	Availability of GRADE profile	Equity considerations (organized by PROGRESS PLUS categories)	Type of policy question addressed
Focus on research and innovation systems *Search 1*, *Search 2*, *Search 3*, *Search 4*, *Search 5*, *Search 6*, *Search 7*, *Search 8*, *Search 9* *Total syntheses: Six (of which three are medium quality and three are low quality)*	The number and variety of clinical trials on cannabinoids have increased since 2013, with a focus on Phase I and II trials, interventional studies and private sector involvement, highlighting the need for further research to address the disparity among therapeutic areas and provide actionable insights for stakeholders (51)	No	2/9	2021	No	Not reported	Identifying implementation considerations
	Responsible research and innovation practices include efforts to promote inclusion and public engagement, reflection on research processes, managing ethical, legal and social issues, and institutionalization of responsibility (52)	No	4/9	2015	No	Gender/sex	Identifying implementation considerations
	Public involvement activities require better reporting of representation aims and achievement, as well as justification for eligibility criteria and recruitment methods, to be considered a legitimate tool for research governance and policy-making (53)	No	2/9	Not reported (published 2016)	No	Race/ethnicity/ culture/language; gender/Sex; socio-economic status	Identifying implementation considerations
	Stakeholder identification methods should incorporate justified selection criteria or a mapping framework, collaborative or democratic principles, and stakeholder participation methods should avoid top-down approaches by shaping ethical analysis frameworks through participatory processes or integrating insights from participatory design (54)	No	4/9	2013	No	Not reported	Identifying implementation considerations
	The development of reporting standards and best practice examples for public inclusion activities (PIA) objectives and methods, as well as the assessment of policy and decision-makers' importance placed on PIA findings, could improve the translation of PIA findings into further policy development and the understanding of challenges for translation of consultation and participation/deliberation activities (55)	No	3/9	2013	No	Not reported	Identifying implementation considerations

Searches conducted	Most relevant evidence syntheses to inform decision-making about the sub-elements	Living status	Quality (AMSTAR)	Last year literature searched	Availability of GRADE profile	Equity considerations (organized by PROGRESS PLUS categories)	Type of policy question addressed
	More research is needed to develop and evaluate different training methods and support for involving consumers in health research decision-making, and efforts should be made to address barriers to their input in research agendas, engage in reflexive research, conduct prospective comparative studies of consumer involvement methods, and advance research on collective decision-making processes and outcomes (56)	No	5/9	Not reported (published 2004)	No	Not reported	Identifying implementation considerations
Focus on James Lind Alliance and priority setting approaches *Search 10* *Total syntheses: 11 (of which nine are medium quality and two are low quality)*	In research priority setting initiatives focusing on plastic and reconstructive surgery, there exists underrepresentation of patients from low-income countries, and further efforts should be invested to help recruit multidisciplinary stakeholders; James Lind Alliance, qualitative approaches and Delphi techniques were the most common methods of prioritization among included studies (57)	No	7/9	2021	No	Occupation	Identifying implementation considerations
	Regularly updating the stroke research priority setting process, improving stakeholder inclusion, and expanding geographical scope are necessary to ensure that the research agenda is informed by relevant priorities, especially regarding life after stroke, considering the dynamic and context-specific nature of priorities and the limited number of exercises conducted in low-middle-income countries (58)	No	7/9	2021	No	Socio-economic status	Identifying implementation considerations
	To effectively set research priorities in Black and minority ethnic (BAME) health and address health inequalities, regular updates, improved stakeholder inclusion, outcome evaluations, community engagement and explicit criteria are crucial, emphasizing the involvement of BAME communities in each stage of the process (59)	No	6/9	2020	No	Race/ethnicity/ culture/language	Identifying implementation considerations
	While research priority setting initiatives focusing on obesity often engage a range of stakeholders (e.g., policymakers, researchers and health professionals), there is a pressing need for a more comprehensive approach that emphasizes increased public involvement and routine evaluation of prioritization exercises to assess for quality and effectiveness (60)	No	6/9	2020	No	Personal characteristics associated with discrimination	Identifying implementation considerations

Searches conducted	Most relevant evidence syntheses to inform decision-making about the sub-elements	Living status	Quality (AMSTAR)	Last year literature searched	Availability of GRADE profile	Equity considerations (organized by PROGRESS PLUS categories)	Type of policy question addressed
	The identification and reporting of research priorities in maternal and perinatal health require the use of established research prioritization methods, while ensuring clarity on stakeholder groups, specificity in research question formulation, and transparency to enhance the quality and usability of the identified priorities (61)	No	5/9	2020	No	Gender/sex	Identifying implementation considerations
	Research priority setting in eating disorders should actively involve consumers, clinicians and researchers throughout the research journey in a co-design perspective, beyond just setting research priorities, to help produce better interventions and outcomes, bridge the research-practice gap, support early intervention and recovery, address diagnosis, genetic factors, brain circuitry and pharmacotherapy, and focus on self-harm, early detection, transition between services, and improved treatments in the field of emergency departments (62)	No	3/9	2020	No	Not reported	Identifying implementation considerations
	Research priority setting initiatives focusing on women's health can benefit from publishing protocols, using formal consensus methods that involve women and their families and detailed reporting of methods and results (63)	No	6/9	2019	No	Gender/sex	Identifying implementation considerations
	A comprehensive and evidence-based understanding of the effectiveness of methods to identify health research gaps, needs and priorities is essential, given the diversity and inconsistent categorization of these factors, highlighting the need for clearly defined approaches and the use of reporting guidelines to guide best practices and facilitate targeted allocation of funds (64)	No	4/9	2019	No	Not reported	Identifying implementation considerations
	Patient involvement in identifying research priorities covers themes such as treatment, patients and health condition, while emphasizing the need for disease-specific approaches, consideration of contextual factors, inter-country comparisons, integration of identified priorities into research activities, and strengthened strategies for monitoring uptake and reporting impact (65)	No	3/9	2018	No	Not reported	Identifying implementation considerations

Searches conducted	Most relevant evidence syntheses to inform decision-making about the sub-elements	Living status	Quality (AMSTAR)	Last year literature searched	Availability of GRADE profile	Equity considerations (organized by PROGRESS PLUS categories)	Type of policy question addressed
	It is recommended to increase patient and family engagement in research priority setting, particularly through the involvement of children and adolescents, using strategies such as consensus-based methods, plain language surveys and social media networks, to ensure the research agenda encompasses a comprehensive range of patient perspectives and concerns in pediatric chronic disease, while adhering to good practice guidelines for priority setting processes and reporting (66)	No	5/9	2016	No	Not reported	Identifying implementation considerations
	Improving health research priority setting requires enhanced stakeholder involvement, clear criteria, transparency, dissemination, appeals mechanism, alignment with high-level documents, thorough context analysis, comprehensive implementation plans, and monitoring compliance with indicators (67)	No	4/9	2016	No	Not reported	Identifying implementation considerations

Appendix 10: Reference list

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