

# Evidence Brief – Appendix B

Ensuring That the Health-related Decisions Affecting  
Canadian Military Personnel, Veterans, and Their  
Families are Informed by the Best Available  
Evidence

16 October 2022



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**Evidence Brief – Appendix B:  
Ensuring That the Health-related Decisions Affecting Canadian Military Personnel, Veterans, and  
Their Families are Informed by the Best Available Evidence**

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## **APPENDIX B: RELATED EVIDENCE SYNTHESSES**

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

The fifth column presents a rating of the overall quality of the review. The quality of each review has been assessed using AMSTAR (A Measurement Tool to Assess Reviews), which rates overall quality on a scale of 0 to 11, where 11/11 represents a review of the highest quality. It is important to note that the AMSTAR tool was developed to assess reviews focused on clinical interventions, so not all criteria apply to 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.

The last three columns convey information about the utility of the review in terms of local applicability, applicability concerning prioritized groups, and issue applicability. The third-from-last column notes the proportion of studies that were conducted in Canada, while the second-from-last column shows the proportion of studies included in the review that deal explicitly with one of the prioritized groups. The last column indicates the review’s issue applicability in terms of the proportion of studies focused on supporting evidence use. Similarly, for each economic evaluation and costing study, the last three columns note whether the country focus is Canada, if it deals explicitly with one of the prioritized groups and if it focuses on supporting evidence use.

All of the information provided in the appendix tables was taken into account by the evidence brief’s authors in compiling Tables 5-7 in the main text of the brief.

**Appendix B1: Evidence syntheses relevant to Element 1 - DND/VAC, alone and in collaboration with central agencies, to build capacity, address the culture, and leverage enablers for evidence use in government**

Element	Focus of systematic review	Key findings	Year of last search	AMSTAR (quality) rating	Proportion of studies that were conducted in Canada	Proportion of studies that deal explicitly with one of the prioritized groups	Proportion of studies that focused on supporting evidence use
DND/VAC, alone and in collaboration with central agencies, to build capacity, address the culture, and leverage enablers for evidence use in government	Examining the effectiveness of interventions to increase the use of research evidence by decision-makers (3)	<p>The overview of systematic reviews included 36 reviews that identified interventions to increase the use of research evidence by decision-makers. Interventions were mapped along six mechanisms: 1) awareness; 2) agree; 3) communication and access; 4) interact; 5) skills; and 6) structure and process.</p> <p>For the first and second mechanisms, awareness (e.g., building awareness for, and positive attitudes towards evidence-informed decision-making) and agree (e.g., building mutual understanding and agreement on policy-relevant questions and the kind of evidence needed to answer them), the overview of systematic reviews was unable to draw conclusions of the efficacy of interventions.</p> <p>For the third mechanism, access to and communication of evidence, the overview found that interventions providing communication of, and access to evidence can improve decision-makers' motivation and opportunity to use evidence. The overview also found that these mechanisms improve decision-makers' use of evidence. These interventions may include combining an online database of systematic reviews with targeted messages to decision-makers. When these interventions only provide the opportunity to use evidence (e.g., do not communicate evidence), they are ineffective at increasing decision-makers' use of evidence.</p> <p>For the fourth mechanism, interact, the overview of systematic reviews found that unstructured interaction was ineffective at improving decision-makers' capability to use evidence. The overview noted that there was some evidence to suggest that a light touch approach through user-engagement or consultation</p>	Not reported in detail	No rating tool available for this document	Not reported in detail	Not reported in detail	Not reported in detail

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Element	Focus of systematic review	Key findings	Year of last search	AMSTAR (quality) rating	Proportion of studies that were conducted in Canada	Proportion of studies that deal explicitly with one of the prioritized groups	Proportion of studies that focused on supporting evidence use
		<p>may have a positive effect. It was not however, possible to establish a causal link.</p> <p>For the fifth mechanism, skills (e.g., supporting decision-makers to develop skills in accessing and making sense of evidence), the overview of systematic reviews found that these interventions can improve capability and motivation to use evidence, but when used as part of a multi-mechanism intervention were found to be ineffective, as well as for passive educational interventions.</p> <p>For the sixth mechanism, structure and process (e.g., influencing decision-making structures and processes), there is evidence to indicate that multi-mechanism interventions that include changes to decision-making structures, for example, changes in supervision, were effective in increasing opportunity and motivation to use evidence. There is also some evidence to suggest that combining structure and process with skills development is effective to embed the use of evidence among decision-makers. There is also some evidence to suggest that formalizing access to evidence through an integrated evidence-on-demand service is effective to increase decision-makers' use of evidence.</p> <p>The overview found limited evidence on the use of multi-mechanism interventions.</p>					
	Examining the use of research evidence by public-health decision-makers in universal health systems (5)	<p>The review included 18 studies that examined: 1) the extent to which research evidence is used by public-health decision-makers; 2) types of research evidence used by public-health decision-makers; 3) the process of using research evidence; 4) factors, other than research, influencing public-health decision-making processes; and 5) barriers and facilitators in the use of research evidence.</p> <p>Relatively little evidence was found that quantified the extent to which research evidence is used in public-health decision-making</p>	2010	9/10 (AMSTAR rating from McMaster Health Forum)	8/18	0/18	18/18

McMaster Health Forum

Element	Focus of systematic review	Key findings	Year of last search	AMSTAR (quality) rating	Proportion of studies that were conducted in Canada	Proportion of studies that dealt explicitly with one of the prioritized groups	Proportion of studies that focused on supporting evidence use
		<p>processes. One study found that 63% of participating Ontario public-health staff reported using at least one systematic review, and one study conducted in Australia found that 28% of public-health policymakers reported using academic research.</p> <p>Two studies explored the types of research evidence used by public-health decision-makers, which included primary research studies, systematic reviews, internal program evaluations, local and provincial best practices, observation studies, household studies, controlled evaluations of interventions, natural policy experiments, and historical evidence.</p> <p>Relatively few studies revealed the process through which research evidence was used in decision-making. Two qualitative studies explored how research evidence was accessed by decision-makers and found senior bureaucrats used experts, technical reports, monographs and bulletins, the internet, statistical data, policymakers in other jurisdictions, academic literature, internal expertise, government policy documents, and consultants. One quantitative study found that the most used sources of evidence about chronic-disease prevention and control was printed academic literature followed by websites and provincial health and recreation organizations. Five qualitative studies explored the process through which research evidence was applied to decision-making and found that it was generally used to justify decisions after they had been made.</p> <p>The bulk of the literature found addressed factors that influence public-health decision-making processes. The review found that other factors from studies in the U.K. and Canada include: financial sustainability; local competition; strategic fit; pressure from stakeholders; and public opinion. The studies included in the review also highlighted the influence of key personnel in the decision-making process, either by judgments based on common sense and expert opinion or by acting as a filter through which evidence is transferred.</p>					

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Element	Focus of systematic review	Key findings	Year of last search	AMSTAR (quality) rating	Proportion of studies that were conducted in Canada	Proportion of studies that deal explicitly with one of the prioritized groups	Proportion of studies that focused on supporting evidence use
		<p>The majority of qualitative literature explored barriers and facilitators to the use of research evidence. There is a general consensus across the literature on the most important factor limiting the use of research evidence, which is a perceived lack of research evidence. Other barriers included negative perceptions of available research, an undue focus on RCTs, too much scientific uncertainty, poor local applicability, a lack of focus on the social determinants of health, and a lack of complexity to address multi-component health systems. The evidence base on how to overcome these barriers is less extensive, but included: improved communication and sustained dialogue between researchers and end users; establishing trust between researchers and policymakers; capacity building among researchers to effectively disseminate evidence; and capacity building about decision-makers to critically appraise research.</p> <p>In two studies, it was believed that changing the organizational culture within which policymakers work (in terms of structures, rewards and training) so that more value is placed on the use of research evidence for decisions might encourage its use.</p> <p>While changing the culture towards one that places greater value on research evidence was often cited in the literature, no actionable interventions were suggested to enable this shift.</p>					
	Increasing the use of research in population-health policies and programs (4)	The review included 14 studies that examine the factors that impede and enhance the use of research evidence in policymaking for public-health programs. The review categorized approaches into themes, including: 1) strategies aimed at enhancing interactions between researchers and research users; 2) strategies aimed at enhancing the capacity of organizations to use research evidence; and 3) funding research infrastructure and research projects.	2015	6/9 (AMSTAR rating provided by the McMaster Health Forum)	2/14	0/14	14/14



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Element	Focus of systematic review	Key findings	Year of last search	AMSTAR (quality) rating	Proportion of studies that were conducted in Canada	Proportion of studies that deal explicitly with one of the prioritized groups	Proportion of studies that focused on supporting evidence use
		The review identified relatively few studies relating to any of the themes and reported mixed effects on capacity-building efforts within organizations to increase research use.					
	Examining the function and effectiveness of knowledge brokers as facilitators of knowledge translation within organizations (6)	<p>The review included 29 studies that examined the different functions and effectiveness of knowledge brokers to enable knowledge translation within organizations.</p> <p>The review found that knowledge brokers perform diverse tasks across multiple health-related settings, including knowledge manager, linkage agent and internal capacity builder.</p> <p>In addition, their tasks were generally found to include: identify, engage and connect stakeholders; facilitate collaboration; identify and obtain relevant information; facilitate development of analytic and interpretive skills; create tailored knowledge products; project coordination; support communication and information sharing; network development maintenance and facilitation; and facilitate and evaluate change.</p> <p>The review also evaluated the work of knowledge brokers and found that they effectively facilitated knowledge translation in health-related settings.</p>	2014	7/9 (AMSTAR rating provided by the McMaster Health Forum)	3/19	0/19	19/19
	Examining the political and institutional influences on the use of evidence in policymaking (7)	<p>The review included 56 studies that examined relevant political and institutional aspects that affect the use of health evidence at different levels of decision-making. These included examining the mechanisms that can be put in place within each political system and specific institutions, as well as the political nature of health issues.</p> <p>At the level of the institution, the review found the following factors hindered the use of research evidence: division of responsibilities within government bureaucracies; institutional path dependency; and high turnover of staff. The review also found that having dedicated bodies outside of government</p>	2012		Not reported in detail	Not reported in detail	56/56

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Element	Focus of systematic review	Key findings	Year of last search	AMSTAR (quality) rating	Proportion of studies that were conducted in Canada	Proportion of studies that deal explicitly with one of the prioritized groups	Proportion of studies that focused on supporting evidence use
		departments with the mandate of providing research evidence facilitated the uptake and use of evidence.					
	Examining the effects of information products designed to support the uptake of systematic-review evidence by health-system managers, policymakers and healthcare professionals (8)	The overall quality of the included studies was very low to moderate. The findings showed that passive dissemination of an information product, based on systematic review evidence, on a national or regional basis, can be effective in instances where there is a single clear message and a growing awareness by users that changes in practice are needed. Although there is some face validity for a multifaceted intervention in development awareness for using and finding evidence, additional evidence on the effectiveness of this approach is required. Future implications for research include the challenge to classify outcome measures due to the variety of measures reported in the included studies. The researchers suggested that increasing awareness and accessibility to evidence for decision-making processes may lead to contamination of the delivery of interventions.	2011	9/10 (AMSTAR rating from McMaster Health Forum)	1/8	0/8	8/8
	Examining the impact of interventions encouraging the use of systematic reviews by health policymakers and managers (9)	This review showed a paucity of experimental research on interventions that encourage the use of systematic reviews by health policymakers. There is insufficient evidence to draw definitive conclusions about the effectiveness of interventions that encourage health policymakers and managers to use systematic reviews in decision-making. Implications for future research include assessing the contexts under which systematic reviews are most effective, which may include: 1) how systematic reviews are accessed; 2) how they are used; 3) identifying the types of reviews needed in policymaking; 4) understanding the applicability of systematic reviews in the local context; and 5) the specific characteristics that make systematic reviews easy to use.	2010	9/10 (AMSTAR rating from McMaster Health Forum )	3/3	0/3	3/3

**Appendix B2: Evidence syntheses relevant to Element 2 – DND/VAC and CIMVHR/Atlas/CPCoE to formalize and strengthen the ‘interface’ between the evidence-demand side and the evidence-supply side**

Element	Focus of systematic review	Key findings	Year of last search	AMSTAR (quality) rating	Proportion of studies that were conducted in Canada	Proportion of studies that deal explicitly with one of the prioritized groups	Proportion of studies that focused on supporting evidence use
DND/VAC and CIMVHR/Atlas/CPCoE to formalize and strengthen the ‘interface’ between the evidence-demand side and the evidence-supply side	Increasing the use of research in population-health policies and programs (4)	<p>The review included 14 studies that examine the factors that impede and enhance the use of research evidence in policymaking for public health programs. The review categorized approaches into themes, including: 1) strategies aimed at enhancing interactions between researchers and research users; 2) strategies aimed at enhancing the capacity of organizations to use research evidence; and 3) funding research infrastructure and research projects.</p> <p>The review identified relatively few studies relating to any of the themes and reported mixed effects on capacity-building efforts within organizations to increase research use.</p>	2015	6/9 (AMSTAR rating provided by the McMaster Health Forum)	2/14	0/14	14/14
	Examining the function and effectiveness of knowledge brokers as facilitators of knowledge translation within organizations (6)	<p>The review included 29 studies that examined the different functions and effectiveness of knowledge brokers to enable knowledge translation within organizations.</p> <p>The review found that knowledge brokers perform diverse tasks across multiple health-related settings, including knowledge manager, linkage agent and internal capacity builder.</p> <p>In addition, their tasks were generally found to include: identify, engage and connect stakeholders; facilitate collaboration; identify and obtain relevant information; facilitate development of analytic and interpretive skills; create tailored knowledge products; project coordination; support communication and information sharing; network development maintenance and facilitation; and facilitate and evaluate change.</p> <p>The review also evaluated the work of knowledge brokers and found that they effectively facilitated knowledge translation in health-related settings.</p>	2014	7/9 (AMSTAR rating provided by the McMaster Health Forum)	3/19	0/19	19/19

**Appendix B3: Evidence syntheses relevant to Element 3 – CIMVHR/Atlas/CPCoE to develop and implement standards for key forms of evidence, key types of evidence products and processes, and their public sharing**

Element	Focus of systematic review	Key findings	Year of last search	AMSTAR (quality) rating	Proportion of studies that were conducted in Canada	Proportion of studies that deal explicitly with one of the prioritized groups	Proportion of studies that focused on supporting evidence use
CIMVHR/Atlas/CPCoE to develop and implement standards for key forms of evidence, key types of evidence products and processes, and their public sharing	Matching evidence syntheses with the appropriate knowledge user (13)	The review included 24 resources and developed a framework for 10 different forms of evidence-synthesis outputs and the process for matching users' information needs with an appropriate output. In addition it presented the 10 different forms of evidence synthesis and the most appropriate audience. The review identified a number of considerations that could be used to develop standards for syntheses. These include: systematic and transparent application and recording of the methodology and methods-related decisions; fit of the evidence product to the question asked (or the knowledge gap identified); timely production; use of plain, non-technical language to describe conclusions; and clarity about the resources needed to produce different types of products.	Not reported in detail	2/9 (AMSTAR rating by McMaster Health Forum)	Not reported in detail	Not reported in detail	24/24
	Evaluating knowledge translation platforms that support evidence use and evidence-informed decision-making (15)	<p>The review included 38 studies focused on knowledge translation platforms and synthesized what was known about their evaluations.</p> <p>The review synthesized the different features of the activities undertaken by knowledge translation platforms. The review found that in general, evidence briefs and deliberative dialogues were the most extensively studied and most widely undertaken, followed by rapid evidence services and capacity building workshops. Key features of evidence briefs include describing a problem and its causes, options for addressing it, and key implementation considerations. Key features of rapid syntheses included: awareness of user needs; opportunity for feedback from users (i.e., being a personalized service); working with current norms and behaviours of users; and ensuring the product was policy relevant and completed within the right time frame.</p> <p>The review found relatively few evaluations (particularly formative) of knowledge translation platforms. Despite this there is a growing evidence base suggesting that knowledge translation platforms offer promise in supporting evidence-informed policymaking.</p>	2017	8/9 (AMSTAR rating provided by the McMaster Health Forum)	Not reported in detail	Not reported in detail	38/38





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