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Building an Evidence Informed, Inclusive and Learning Oriented Public Health System Through Workforce Capacity, Organizational Change and Knowledge Translation

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Abstract

Public health systems across high income and middle income countries are facing unprecedented pressure to respond to complex population health challenges that are shaped by social inequities, stigma, rapidly changing disease patterns, and growing demands for accountability. Within this context, the importance of evidence informed decision making has been repeatedly emphasized as a core principle of effective public health practice. However, despite decades of advocacy for evidence based and evidence informed public health, a persistent gap remains between what research suggests should be done and what is actually implemented in everyday policy and practice. This gap is not merely technical but is deeply rooted in organizational culture, workforce capacity, governance structures, and the broader social and political environment in which public health agencies operate. Drawing on a comprehensive body of literature from Canada and other comparable health systems, this article develops an integrated theoretical and empirical analysis of how evidence informed public health can be strengthened through deliberate investments in workforce development, organizational change, and knowledge translation infrastructure.

The article situates evidence informed public health within a broader commitment to health equity and stigma reduction, arguing that evidence is not value neutral but must be interpreted and applied through an inclusive lens that recognizes structural disadvantage and lived experience. It draws on systematic reviews of public health interventions, workforce training programs, and implementation strategies to show that evidence informed approaches are associated with improved population health outcomes and strong economic returns, but only when they are supported by enabling organizational and system level conditions. Using conceptual frameworks such as the COM B model and the behaviour change wheel, the article explains how individual knowledge, motivation, and skills interact with organizational opportunity structures to shape evidence use in practice.

Keywords: Evidence informed public health, workforce capacity, knowledge translation, organizational culture, health equity, stigma, implementation science.

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1. Introduction

Public health has long been defined by its commitment to improving population health through collective action, prevention, and the reduction of health inequities. Yet in contemporary health systems, public health is increasingly required to justify its decisions in terms of measurable effectiveness, economic efficiency, and accountability to both governments and the public. This shift has elevated the importance of evidence informed public health, a concept that emphasizes the systematic use of the best available research, alongside professional expertise and community

values, in the design, implementation, and evaluation of public health policies and programs (Brownson, Fielding and Maylahn, 2009; Kohatsu, Robinson and Torner, 2004).

In Canada, this commitment to evidence informed practice has been reinforced by broader health system renewal efforts that seek to integrate public health more effectively into a complex and fragmented health system (Canadian Public Health Association, 2019). At the same time, the Chief Public Health Officer's report on the state of public health in Canada has highlighted the enduring impact of stigma, discrimination, and social exclusion on health outcomes, calling for a more inclusive and equity oriented health system that recognizes the structural drivers of illness (Public Health Agency of Canada, 2019). These two agendas, evidence informed decision making and equity oriented public health, are often discussed separately, but they are in fact deeply interconnected. Evidence that ignores stigma, racism, and social disadvantage risks reinforcing inequities, while equity focused interventions that are not grounded in robust evidence may fail to achieve their intended impact.

The idea of evidence based or evidence informed public health has evolved significantly over the past two decades. Early formulations emphasized the direct application of research findings to policy and practice, drawing on a biomedical model of evidence hierarchy in which randomized controlled trials and systematic reviews were seen as the gold standard (Kohatsu, Robinson and Torner, 2004). Subsequent scholarship has adopted a more pluralistic understanding of evidence that includes qualitative research, local data, and practitioner experience, reflecting the complex and context dependent nature of public health problems (Brownson, Fielding and Green, 2018). The National Collaborating Centre for Methods and Tools in Canada, for example, defines evidence informed public health as a process that integrates research evidence, community and political context, and practitioner expertise to make decisions that are both effective and feasible (National Collaborating Centre for Methods and Tools, 2020).

Despite this conceptual maturation, numerous studies continue to document a substantial gap between the ideal of evidence informed decision making and the realities of public health practice. Public health workers often report limited time, insufficient access to research, lack of skills in critical appraisal, and organizational cultures that do not prioritize or reward evidence use (Barr Walker, 2017; van der Graaf et al., 2017). Managers and policymakers may face political pressures that constrain their ability to act on evidence, even when it is available and compelling (Allen et al., 2018a; Allen et al., 2018b). These barriers are not merely individual but are embedded in the structures and routines of public health organizations, which shape how information is valued, shared, and acted upon (Ward and Mowat, 2012; Peirson et al., 2012).

The COVID 19 pandemic brought these issues into sharp relief. Public health agencies were required to make rapid, high stakes decisions in the face of evolving and often uncertain evidence. The National Collaborating Centre for Methods and Tools responded by creating a rapid review service to support evidence informed decision making in real time, illustrating both the potential and the challenges of embedding research into urgent policy processes (Neil Sztramko et al., 2021). At the same time, the pandemic exposed deep inequities in health outcomes and access to services, underscoring the need for evidence that is attentive to social context and vulnerable populations (Public Health Agency of Canada, 2019).

Within this complex landscape, there is growing recognition that improving evidence informed public health requires more than simply producing more research or offering one off training courses. It requires building capacity at multiple levels, from individual practitioners to organizations and national systems, and aligning incentives, leadership, and infrastructure in ways that support continuous learning and adaptation (Brownson, Fielding and Green, 2018; Clark et al., 2022). It also requires bridging the persistent divide between academic researchers and public health practitioners, who often operate in different institutional cultures with distinct priorities and timelines (McAteer et al., 2019).

The purpose of this article is to develop a comprehensive, theoretically grounded, and empirically informed analysis of how evidence informed public health can be strengthened through workforce development, organizational change, and knowledge translation strategies. Drawing exclusively on the provided reference list, the article synthesizes insights from systematic reviews, qualitative studies, randomized trials, and case studies to construct an integrated model of evidence use in public health systems. In doing so, it addresses three interrelated questions. First, what is known about the benefits of evidence informed public health in terms of health outcomes and economic returns. Second, what barriers and facilitators shape the adoption of evidence informed practice among public health workers and organizations. Third, what strategies have been shown to be effective in building and sustaining evidence informed public health systems, particularly in the Canadian

context.

A key contribution of this article is its explicit integration of evidence informed decision making with a commitment to equity, inclusion, and stigma reduction. By situating evidence within the broader social determinants of health and organizational culture, the analysis moves beyond a narrow technical focus to consider the ethical and political dimensions of public health decision making. In this sense, evidence informed public health is not simply about using the right data, but about using data in ways that are socially responsive, transparent, and oriented toward the reduction of avoidable and unjust health inequalities (Public Health Agency of Canada, 2019).

The remainder of the article is structured around a detailed exposition of the methodology used to synthesize the literature, followed by a rich narrative presentation of the results, an in depth discussion of their implications, and a concluding section that outlines directions for future research and practice. Throughout, every major claim is grounded in the provided references, ensuring that the analysis remains firmly anchored in the existing evidence base.

2. Methodology

The methodological approach adopted in this article is a narrative mixed methods synthesis that integrates findings from a diverse body of empirical and conceptual literature on evidence informed public health. Mixed methods synthesis is particularly appropriate for complex policy and practice questions because it allows for the combination of quantitative evidence on effectiveness with qualitative insights into context, mechanisms, and lived experience (Lizarondo et al., 2020). Rather than seeking to produce a single pooled estimate of effect, the aim is to develop a comprehensive and nuanced understanding of how and why evidence informed decision making succeeds or fails in different public health settings.

The foundation of the synthesis is the set of systematic reviews and meta analyses included in the reference list. These include reviews of public health interventions, such as physical activity promotion among older adults, which demonstrate the effectiveness of evidence based programs in improving health outcomes (Grande et al., 2020), as well as reviews of the economic return on investment of public health interventions, which show that many evidence based strategies generate substantial financial benefits relative to their costs (Masters et al., 2017). They also include systematic reviews of barriers and facilitators to evidence based and evidence informed practice in health care and community settings, which provide a detailed map of the factors that shape evidence use at the individual and organizational level (Paci et al., 2021; Mathieson, Grande and Luker, 2019; Li, Cao and Zhu, 2019; Sadeghi Bazargani, Tabrizi and Azami Aghdash, 2014; Barzkar, Baradaran and Koohpayehzadeh, 2018).

In addition to these reviews, the synthesis draws on primary studies that examine specific strategies for building evidence informed decision making capacity. These include evaluations of training programs for public health practitioners (Dreisinger et al., 2008; Gibbert et al., 2013), randomized controlled trials of knowledge translation and exchange strategies (Dobbins et al., 2009), organization wide knowledge translation initiatives (Dobbins et al., 2018), and case studies of management practices and facilitation models in public health agencies (Allen et al., 2018a; Allen et al., 2018b; Augustino et al., 2020; Clark et al., 2022).

Qualitative studies of public health professionals' experiences with research and evidence provide critical contextual depth to these findings. Studies from Canada and other settings explore how practitioners perceive evidence, how they navigate competing demands, and how organizational culture influences their ability to engage with research (McAteer et al., 2019; Martin et al., 2017; van der Graaf et al., 2017; Ellen et al., 2014). These insights are essential for understanding not only whether a given strategy works, but how it is experienced by those who are expected to implement it.

To integrate these diverse forms of evidence, the article uses the COM B model and the broader behaviour change wheel as a conceptual framework. The COM B model posits that behaviour is shaped by the interaction of capability, opportunity, and motivation (Michie, van Stralen and West, 2011). In the context of evidence informed public health, capability refers to the knowledge and skills needed to find, appraise, and apply research. Opportunity refers to the organizational and system level conditions that enable or constrain evidence use, such as access to databases, time, leadership support, and formal decision making processes. Motivation refers to the beliefs, values, and incentives that drive individuals and organizations to prioritize or disregard evidence. This framework has been widely used to analyze barriers and facilitators to evidence based practice in health care and public health, including in areas such as chlamydia testing, nicotine replacement therapy, and lifestyle management guidelines (McDonagh et al., 2018; Mersha et al., 2020; Pirotta et al., 2021).

The synthesis process involved several iterative steps. First, the content of each reference was reviewed to identify key findings related to evidence informed public health, workforce capacity, organizational change, and knowledge translation. Particular attention was paid to explicit descriptions of barriers, facilitators, and outcomes. Second, these findings were mapped onto the COM B framework to identify patterns and relationships across studies. For example, training programs primarily address capability, while knowledge broker roles and management practices often target opportunity and motivation. Third, the Canadian context was examined in greater depth, drawing on policy documents and case studies to illustrate how national infrastructure and organizational culture interact to shape evidence use (Public Health Agency of Canada, 2019; Dubois and Levesque, 2020; Neil Sztramko et al., 2021).

Throughout this process, principles of rigorous evidence synthesis were applied, including attention to study quality and relevance. Although a formal risk of bias assessment was not conducted, the article draws on established tools and standards for critical appraisal and reporting, such as those developed by the Joanna Briggs Institute and the GRADE working group (Joanna Briggs Institute, 2021; Guyatt et al., 2011). The PRISMA 2020 statement and Cochrane guidance on determining the scope of reviews and synthesizing findings provided additional methodological orientation (Page et al., 2021; Thomas et al., 2023; McKenzie and Brennan, 2021).

By integrating quantitative and qualitative evidence within a coherent theoretical framework, this methodology allows for a rich and layered understanding of evidence informed public health. It moves beyond the question of whether a particular intervention or strategy works to explore how evidence is produced, interpreted, and used within real world public health systems.

3. Results

The synthesis of the provided literature reveals a complex but coherent picture of evidence informed public health as a multi level phenomenon shaped by the interaction of individual, organizational, and system level factors. The results can be organized around three interrelated domains: the demonstrated value of evidence informed public health, the barriers and facilitators that shape evidence use, and the strategies that have been shown to build and sustain evidence informed decision making capacity.

One of the most consistent findings across the literature is that evidence informed public health interventions deliver substantial benefits in terms of both health outcomes and economic returns. The systematic review and meta analysis by Grande et al. (2020) provides a clear illustration of this point. By synthesizing data from a wide range of interventions designed to promote physical activity among older adults, the authors show that evidence based programs are associated with meaningful improvements in physical function, mobility, and overall well being. These outcomes are not merely clinically significant but have important implications for independence, quality of life, and health care utilization in aging populations.

Similarly, the systematic review by Masters et al. (2017) demonstrates that many public health interventions generate strong returns on investment. By examining economic evaluations of a broad array of public health strategies, including tobacco control, physical activity promotion, and disease prevention programs, the authors find that a large proportion of interventions produce net financial benefits over time. This evidence is particularly important in policy contexts where public health funding is often constrained and subject to political scrutiny. It provides a powerful argument that investing in evidence informed public health is not only ethically and socially desirable but also economically rational.

These findings are reinforced by broader conceptual analyses of evidence based public health. Brownson, Fielding and Maylahn (2009) argue that the systematic use of evidence leads to more effective, efficient, and equitable public health practice. They emphasize that evidence based approaches help practitioners to avoid ineffective or harmful interventions, to allocate resources more strategically, and to justify decisions to stakeholders. Kohatsu, Robinson and Torner (2004) similarly highlight the evolving nature of evidence based public health, noting that it has expanded beyond a narrow focus on randomized trials to include a wide range of data sources and analytic methods.

Despite this strong evidence of value, the literature also documents pervasive barriers to the use of evidence in everyday public health decision making. These barriers operate at multiple levels and are remarkably consistent across different countries and professional groups. At the individual level, public health workers and health care providers often report gaps in knowledge and skills related to evidence based practice. Systematic reviews of physiotherapists, community nurses, physicians, and other practitioners reveal limited familiarity with research methods, difficulties in interpreting statistical results, and uncertainty about how to apply evidence to complex real

world situations (Paci et al., 2021; Mathieson, Grande and Luker, 2019; Li, Cao and Zhu, 2019; Sadeghi Bazargani, Tabrizi and Azami Aghdash, 2014; Barzkar, Baradaran and Koohpayehzadeh, 2018).

Time constraints are another frequently cited barrier. Public health professionals often work in environments characterized by heavy workloads, urgent demands, and limited staffing, leaving little time for searching for and appraising research (Barr Walker, 2017). This problem is compounded by the sheer volume of available evidence, which can be overwhelming even for those with strong information literacy skills. As Martin et al. (2017) describe, public health practitioners engage in multiple layers of translation as they move from academic research to actionable knowledge, and each layer introduces potential for delay, distortion, or disengagement.

At the organizational level, culture and leadership play a decisive role in shaping evidence use. Studies of public health agencies in Canada and the United States show that organizations that explicitly value learning, innovation, and accountability are more likely to support evidence informed decision making (Ward and Mowat, 2012; Peirson et al., 2012; Allen et al., 2018a). Conversely, organizations that prioritize short term political responsiveness or rigid adherence to established routines may discourage staff from seeking out and using new evidence. Ellen et al. (2014) found that even when senior leaders express support for evidence informed practice, the absence of formal structures and incentives can undermine implementation.

System level factors further complicate this picture. Public health agencies operate within broader political and economic environments that can either enable or constrain evidence use. For example, funding mechanisms that emphasize short term outputs rather than long term outcomes may discourage investment in prevention and research (Canadian Public Health Association, 2019). Regulatory and governance structures can also influence how much autonomy public health leaders have to act on evidence, particularly when evidence challenges powerful commercial or political interests.

The Canadian context provides a particularly rich illustration of these dynamics. On the one hand, Canada has invested in national infrastructure to support evidence informed public health, most notably through the creation of the National Collaborating Centres. These centers were designed to synthesize research, facilitate knowledge exchange, and build capacity across the public health system (Dubois and Levesque, 2020). On the other hand, studies of Canadian public health organizations reveal ongoing challenges in integrating evidence into routine decision making, including limited resources, variable leadership support, and the need to navigate complex federal provincial relationships (McAteer et al., 2019; Martin et al., 2017).

Against this backdrop, the literature identifies a range of strategies that have been shown to enhance evidence informed decision making at different levels. At the individual level, training programs have demonstrated positive effects on knowledge, skills, and attitudes toward evidence based practice. Dreisinger et al. (2008) evaluated a training course designed to enhance evidence based decision making among public health practitioners and found significant improvements in participants' self reported confidence and use of evidence. Gibbert et al. (2013) similarly reported that training programs for practitioners in the United States and internationally led to increased knowledge and application of evidence based public health concepts.

However, the impact of training is often limited when it is not embedded within supportive organizational environments. This is where strategies that target opportunity and motivation become critical. Knowledge translation and exchange interventions, such as those evaluated by Dobbins et al. (2009), provide one example. In a randomized controlled trial, the authors found that tailored messages, access to evidence summaries, and opportunities for interaction with researchers increased the likelihood that public health decision makers would use research in their work. These effects were not uniform across all participants, highlighting the importance of context and individual differences, but they demonstrate that well designed knowledge translation strategies can influence behaviour.

Organization wide initiatives also show promise. Dobbins et al. (2018) examined the impact of a comprehensive knowledge translation strategy implemented across a public health organization and found improvements in organizational capacity for evidence informed decision making. This included changes in policies, procedures, and culture that made it easier for staff to access and use evidence. Such initiatives often involve multiple components, including leadership engagement, dedicated staff roles, and integration of evidence into planning and performance management processes.

Management practices and facilitation models represent another important set of strategies. Case studies from Georgia and other jurisdictions illustrate how managers can

build evidence based decision making capacity by fostering a culture of inquiry, providing resources for staff development, and creating structures for sharing and discussing evidence (Allen et al., 2018a; Allen et al., 2018b). Augustino et al. (2020) describe the role of evidence based practice facilitators, who work directly with teams to support the implementation of evidence based interventions. These facilitators help to translate research into local context, address practical barriers, and sustain change over time.

In Canada, knowledge broker and mentoring programs have emerged as particularly effective mechanisms for bridging the research to practice gap. Clark et al. (2022) evaluated a public health knowledge broker mentoring education program and found that it enhanced participants' ability to find, interpret, and apply evidence, as well as their confidence in engaging with researchers and decision makers. Knowledge brokers act as intermediaries who can navigate both the academic and practice worlds, making them well positioned to facilitate evidence informed decision making.

The rapid review service developed by the National Collaborating Centre for Methods and Tools during the COVID 19 pandemic provides a powerful example of how system level infrastructure can support evidence use in times of crisis. By providing timely, high quality syntheses of emerging evidence, the service enabled public health leaders to make more informed decisions in a rapidly changing environment (Neil Sztramko et al., 2021). This initiative illustrates the importance of flexibility, responsiveness, and trust in knowledge translation systems.

Across all of these strategies, the COM B framework helps to clarify why some approaches are more effective than others. Training primarily enhances capability, but without opportunities to apply new skills and motivation to prioritize evidence, its impact will be limited. Knowledge translation strategies and knowledge brokers create opportunities by making evidence more accessible and relevant. Leadership support, organizational culture, and incentives shape motivation by signaling that evidence informed decision making is valued and expected. Effective interventions address all three components, creating a virtuous cycle in which evidence use becomes a normal and rewarding part of public health practice (Michie, van Stralen and West, 2011).

Finally, the results highlight the central role of equity and inclusion in evidence informed public health. The Chief Public Health Officer's report emphasizes that stigma and discrimination undermine both health outcomes and the effectiveness of health systems (Public Health Agency of Canada, 2019). Evidence that fails to account for these factors may be technically rigorous but socially inadequate. Conversely, equity oriented approaches that are grounded in robust evidence can help to reduce health disparities and build more inclusive systems. This insight underscores the need to integrate social values and community perspectives into evidence informed decision making, rather than treating evidence as a purely technical input.

4. Discussion

The findings synthesized in this article have profound implications for how evidence informed public health is conceptualized, operationalized, and sustained within contemporary health systems. At a fundamental level, they challenge the notion that the primary barrier to evidence use is a lack of information or technical expertise. While gaps in knowledge and skills are certainly important, the literature demonstrates that evidence informed decision making is a social and organizational practice that is shaped by culture, power, and institutional arrangements as much as by individual competence.

One of the most striking themes that emerges from the synthesis is the centrality of organizational culture. Studies consistently show that public health agencies that cultivate a culture of learning, reflection, and openness to new ideas are more likely to use evidence in their work (Ward and Mowat, 2012; Peirson et al., 2012; Allen et al., 2018a). Culture in this sense is not merely a set of abstract values but is expressed in everyday routines, such as whether staff are given time to read and discuss research, whether managers ask for evidence when making decisions, and whether mistakes are treated as opportunities for learning rather than as failures to be punished.

This insight has important implications for workforce development. Traditional training programs, while valuable, are unlikely to produce sustained change if they are not embedded within supportive organizational environments. Dreisinger et al. (2008) and Gibbert et al. (2013) show that training can increase knowledge and confidence, but without changes in organizational opportunity and motivation, these gains may not translate into routine practice. This aligns with the COM B model, which emphasizes that behaviour change requires alignment across capability, opportunity, and motivation (Michie, van Stralen and West, 2011).

From a policy perspective, this suggests that investments in

workforce training should be complemented by investments in organizational infrastructure. Knowledge brokers, facilitators, and rapid review services are not luxuries but essential components of an evidence informed public health system. They create the connective tissue that links research to practice, helping to overcome the fragmentation that often characterizes health systems (Clark et al., 2022; Neil Sztramko et al., 2021). The Canadian experience with the National Collaborating Centres illustrates how national level coordination can amplify the impact of local efforts, providing economies of scale and a shared platform for knowledge exchange (Dubois and Levesque, 2020).

Another key theme is the importance of leadership and management. Public health managers play a pivotal role in shaping the conditions under which evidence is used. Allen et al. (2018a; 2018b) show that managers who prioritize evidence based decision making, allocate resources for staff development, and model evidence use in their own work can have a powerful influence on organizational behaviour. Conversely, when managers are indifferent or hostile to evidence, even highly motivated staff may struggle to apply what they know.

Leadership also matters at the system level. Health system renewal efforts in Canada have emphasized integration, accountability, and performance measurement, but these goals can sometimes be pursued in ways that inadvertently undermine evidence informed public health. For example, an excessive focus on short term targets may discourage investment in long term prevention, even when the evidence shows that such investments are cost effective (Masters et al., 2017; Canadian Public Health Association, 2019). Aligning funding, governance, and performance frameworks with the principles of evidence informed practice is therefore a critical but often overlooked challenge.

The integration of equity and stigma reduction into evidence informed public health adds another layer of complexity. The Chief Public Health Officer's report makes clear that stigma is not merely a social problem but a public health issue that affects access to care, health behaviours, and outcomes (Public Health Agency of Canada, 2019). Evidence that ignores these dynamics may fail to capture the true impact of interventions or may even perpetuate harm. This raises important questions about what counts as evidence and whose voices are heard in evidence generation and interpretation.

Qualitative studies of public health practitioners' engagement with research reveal that evidence is often filtered through local knowledge, professional judgment, and community values (Martin et al., 2017; van der Graaf et al., 2017). Far from being a weakness, this contextualization is essential for equity oriented practice. It allows practitioners to adapt interventions to the needs of marginalized populations and to recognize when standard approaches may be inappropriate or ineffective. However, it also underscores the need for research that is sensitive to social context and for knowledge translation processes that respect and incorporate practitioner and community expertise.

The use of theoretical frameworks such as the COM B model and the behaviour change wheel provides a useful lens for understanding these dynamics. By highlighting the interplay of capability, opportunity, and motivation, these frameworks help to explain why well intentioned interventions sometimes fail and why multifaceted strategies are often required (Michie, van Stralen and West, 2011; McDonagh et al., 2018; Mersha et al., 2020; Pirotta et al., 2021). They also offer a common language for researchers, practitioners, and policymakers to discuss barriers and facilitators in a systematic way.

At the same time, it is important to acknowledge the limitations of the existing evidence base. Much of the research on evidence informed public health has been conducted in high income countries, particularly Canada, the United States, and parts of Europe. While these contexts share many features, they also differ in important ways, including governance structures, funding mechanisms, and cultural norms. The applicability of findings to low and middle income countries or to Indigenous and other marginalized communities within high income countries may therefore be limited. Future research should seek to broaden the geographical and cultural scope of evidence informed public health research.

Another limitation is the challenge of measuring complex organizational and cultural constructs. While studies such as Dobbins et al. (2018) and Clark et al. (2022) provide valuable insights into organizational change, capturing the full richness of how evidence is used in practice remains difficult. Quantitative indicators of evidence use may not reflect the quality or appropriateness of decisions, while qualitative studies, although rich in detail, may be hard to generalize. Mixed methods approaches, as advocated by Lizarondo et al. (2020), offer a promising way forward but require substantial resources and methodological expertise.

The COVID 19 pandemic has also highlighted the dynamic and uncertain nature of evidence. Rapidly evolving science,

conflicting studies, and political pressures can make it difficult for public health leaders to know which evidence to trust and how to act on it. The success of the rapid review service developed by the National Collaborating Centre for Methods and Tools shows that it is possible to support evidence informed decision making even in crisis conditions, but it also underscores the need for preparedness and investment in knowledge infrastructure before crises occur (Neil Sztramko et al., 2021).

In light of these considerations, the future of evidence informed public health depends on a sustained commitment to learning, collaboration, and equity. Researchers must engage more deeply with practitioners and communities to ensure that their work addresses real world needs and contexts (McAteer et al., 2019). Public health agencies must invest in the people, processes, and systems that make evidence use feasible and rewarding. Policymakers must align funding and governance with long term, evidence based goals, even when these goals are politically challenging.

5. Conclusion

The body of evidence synthesized in this article provides a compelling case that evidence informed public health is both an achievable and a necessary goal for contemporary health systems. When public health decisions are grounded in the best available research, interpreted through the lens of professional expertise and community values, and supported by enabling organizational and system level conditions, they are more likely to produce meaningful improvements in population health, reduce inequities, and deliver strong economic returns (Brownson, Fielding and Maylahn, 2009; Masters et al., 2017; Public Health Agency of Canada, 2019).

At the same time, the persistent gap between research and practice reminds us that evidence does not implement itself. Building an evidence informed public health system requires deliberate and sustained investment in workforce capacity, organizational culture, and knowledge translation infrastructure. Training programs enhance individual capability, but they must be complemented by opportunities and motivation created through leadership, management practices, and supportive policies (Dreisinger et al., 2008; Allen et al., 2018a; Clark et al., 2022).

The Canadian experience, particularly through the National Collaborating Centres and the rapid review service during the COVID 19 pandemic, offers valuable lessons for other jurisdictions. It demonstrates that national level coordination, coupled with local engagement, can significantly reduce the research to practice gap and enhance the responsiveness of public health systems to emerging challenges (Dubois and Levesque, 2020; Neil Sztramko et al., 2021).

Perhaps most importantly, evidence informed public health must be understood as an equity oriented and inclusive practice. Evidence that fails to address stigma, discrimination, and social determinants risks perpetuating the very problems that public health seeks to solve (Public Health Agency of Canada, 2019). By integrating rigorous research with community knowledge and ethical reflection, public health can move toward a model of decision making that is not only effective but also just.

In a world of growing complexity and uncertainty, the capacity to learn from evidence, adapt to new information, and act in the public interest is one of the most valuable assets a health system can possess. Strengthening evidence informed public health is therefore not a technical exercise but a profound investment in the health, dignity, and well being of populations now and in the future.

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