Rapid Review: What is known about strategies to implement evidence-informed practice at an organizational level?

Prepared by: The National Collaborating Centre for Methods and Tools

Date: July 20, 2022

Please Note: An update of this review may be available. Access the most current version of this review by visiting the National Collaborating Centre for Methods and Tools COVID-19 Rapid Evidence Service at the above link.

Executive Summary

Background

There exist expectations from elected officials and the public (constituents) that public health decisions be informed by the best available evidence from research, local context and political will. The capacity of public health organizations to realize evidence-informed decision making (EIDM) and to implement programs and services that are evidence-informed varies considerably from organization to organization across Canada.

EIDM at an organizational level involves the integration of evidence into all practice decisions by identifying and synthesizing evidence, then developing and executing plans to implement and evaluate changes to practice. The broad implementation of EIDM across an organization may be achieved through strategies that develop an organizational culture for EIDM and where staff at all levels value and contribute to EIDM. Strategies may also build capacity for staff to find, interpret and synthesize evidence to develop practice and program recommendations.

The implementation of an evidence-informed practice or program (EIP) on the other hand, refers to a specific practice or program with proven evidence of effectiveness that has been selected or mandated for implementation. Organizations are tasked with developing a strategy to ensure the successful implementation of the EIP into practice. This may or may not involve the whole organization, depending on what the EIP is. Strategies for implementation may include staff orientation to the new practice, the development of processes and templates to guide staff through the new practice, and the evaluation of practice change through audits or surveys.

At least two streams of research have emerged in this field; one focused on understanding the processes and mechanisms for achieving organization wide EIDM, and the other exploring strategies to implement specific EIPs into practice. These two streams of research however appear to converge in organizational change. For example, whether one is aspiring to achieve EIDM or to implement an EIP, it is clear that significant organizational change is necessary, generally resulting in substantial impact on the organization as a whole, as well as for individuals working there. Change initiatives for the implementation of EIDM or EIP must address challenges such as resistance from staff or lack of staff expertise, as well as tailor strategies to specific organizational climates and structures.

Many frameworks and models exist to guide organizational change initiatives. These frameworks and models distill complex systems that influence behaviour into simpler, visual representations. The COM-B model for behaviour change is one such example, and represents capability (C), opportunity (O) and motivation (M) as three key influencers of behaviour (B) (Michie, 2011). This model provides a simple mnemonic to guide organizational change initiatives and has been used to conceptualize the findings from studies included in this rapid review.

This rapid review was produced to support public health organizations in Canada to implement EIDM. This review seeks to identify, appraise, and summarize research evidence from studies seeking to understand the EIDM process as well as those exploring how to best implement

EIPs, with an intent to support public health organizations in change efforts to practice in an evidence-informed way.

This rapid review includes evidence available up to March 18, 2022 to answer the question: **What is known about strategies to implement evidence-informed practice at an organizational level?**

Key Points

- Given the heterogeneity of included studies, it is not possible to discern which implementation strategies for EIDM or EIP are more effective compared to others.
- Common strategies utilized in both EIDM and EIP approaches include establishing specialized roles, providing staff education and training, developing processes or mechanisms to support new practices, and demonstrating leadership support.
- Facilitators and barriers for EIDM and EIP align with the COM-B model for behaviour change, which outlines capability, opportunity and motivation as influencers of behaviour, see Figure 1. Capability reflects whether a new behaviour is possible. Facilitators for capability include the development of staff knowledge and skill, establishing specialized roles, and knowledge sharing across the organization. Barriers to capability include staff turnover and subsequent knowledge loss.
- Opportunity reflects whether there is opportunity for new behaviour to occur. Facilitators include the development of processes or mechanisms to support new practices, forums for learning and skill development, and protected time. Barriers to opportunity include competing priorities.
- Motivation reflects whether there is sufficient motivation for a new behaviour to occur. Facilitators include supportive organizational culture, expectations for new practices to occur, recognition and positive reinforcement, and strong leadership support. Barriers include negative attitudes toward new practices, and lack of understanding and support from management.
- In consulting evidence to inform EIDM and EIP, it is important to determine that the impact of programs on equity deserving populations will not widen inequities, but rather, narrow any existing gaps. Where the evidence base does not adequately determine the impact of programs on such groups, EIDM and EIP efforts should likely not proceed until additionally collected data and evidence confirm that the implementation of programs will not result in greater health inequities.
- Given the importance of context in organizational change, randomized controlled trial designs are not well-suited to evaluate studies of EIDM and EIP implementation. High-quality single-group studies, such as prospective cohort analytic studies evaluated with validated measures or qualitative descriptive analyses of case studies with thorough descriptions of interventions and context are most informative for designing future initiatives in this field.

Overview of Evidence and Knowledge Gaps

Implementation of EIDM at organizations
- Of 38 included studies of EIDM implementation, most were conducted in public health settings (n=16) and primary care settings (n=16), with some in social services (n=3), child and youth mental health (n=1), and occupational health (n=1).
- Most studies were conducted in the USA (n=17), followed by Canada (n=12), Australia (n=5), and Europe (n=4).
- Study designs included case reports (n=17), single group pre-/post-test studies (n=10), qualitative studies (n=9), and randomized controlled trials (n=2). One randomized controlled trial evaluated the intervention group qualitatively and did not compare outcomes to the control group, so all quantitative studies except one lacked a control group comparison (n=30).
- Studies reported quantitative (n=11), qualitative (n=18), or both quantitative and qualitative results (n=8). For the studies that reported quantitative results, measures included EIDM implementation, EIDM-related beliefs and behaviours, organizational priorities for EIDM, and some patient care quality indicators. Quantitative measures were heterogenous and did not allow meta-analysis. Qualitative findings were generated through formal qualitative analysis (n=31) or descriptive case reports (n=7). Most qualitative results included facilitators and barriers to EIDM implementation (n=22).
- EIDM implementation strategies included Knowledge Broker roles to support EIDM across organizations, broad capacity building of staff at the organization, and academic or research partnerships or networks to support EIDM.
- Facilitators for implementing EIDM at organizations include EIDM knowledge and skill development, multidisciplinary staff in EIDM support roles, access to evidence, knowledge sharing across the organization, EIDM built into processes and practice templates for staff, forums for EIDM learning and practice (e.g., communities of practice, journal clubs), EIDM integrated into new or existing roles, protected time for EIDM learning and practice, supportive organizational culture, expectation from management for EIDM use, recognition and positive reinforcement, and strong leadership support.
- Barriers for implementing EIDM at organizations include the lack of time, staff turnover and knowledge loss, competing priorities, negative attitudes toward EIDM, and lack of support and understanding from management.
- The overall certainty of evidence was rated as moderate. While most studies were uncontrolled observational studies, the certainty of evidence was upgraded to moderate based on the consistency of findings and low risk of bias across studies.

Implementation of evidence-informed practices
- Of 21 included studies of evidence-informed practice implementation, most were conducted in primary care settings (n=10) and social service (n=6), as well as public health settings (n=4) and palliative care (n=1)
- Most studies were conducted in the USA (n=13), followed by Canada (n=4), Australia (n=3), and Europe (n=1).
- Study designs included case reports (n=13), single group pre-/post-test studies (n=6), and qualitative studies (n=2). All quantitative studies lacked a control group comparison.
- Studies reported quantitative (n=8), qualitative (n=11), or both quantitative and qualitative results (n=2). For the studies that reported quantitative results, measures

included use of the evidence-informed practice and patient care quality indicators. Quantitative measures were heterogenous and did not allow meta-analysis. Qualitative findings were generated through formal qualitative analysis (n=2) or descriptive case reports (n=9). Most qualitative results included facilitators and barriers to EIDM implementation (n=10).

- Strategies that contributed to the successful implementation of evidence-informed practice or programs included establishment of a dedicated role or team to support implementation, workforce education, provision of supplemental materials such as manuals or visual guides, involving staff in developing the implementation plan, adapting the implementation plan to the local context, conducting a barrier analysis, and ongoing evaluation and feedback.
- Barriers for implementation of evidence-informed practice or programs included a lack of staff knowledge and understanding of the new program, poor communication between the implementation team and providers or staff, staff turnover and loss of knowledge, lack of both time and personnel, and complexity of programs.
- The overall certainty of evidence was rated as low. Most studies were uncontrolled observational studies. While findings were consistent across studies, most were uncontrolled case studies with non-systematic analyses.

Perspectives from Peer Partners working in Public Health in Canada

- Peer partners working in public health in Canada agreed that this review's findings largely reflected their experiences at their organizations.
- Feedback indicated that in practice, a particularly challenging barrier tends to be a lack of staff knowledge and motivation to learn or change behaviours.
- Partners also indicated that key strategies to support implementation of EIDM or EIP include establishing a dedicated central support unit within the organization, involving staff in developing and implementing changes, providing incentives and positive feedback to staff to reward changed behaviours, and monitoring indicators for change at all levels of the organization.
- A limitation of included studies was not adequately evaluating or addressing the impact of organizational culture on the success of interventions.

Methods

A description of the development of the National Collaborating Centre for Methods and Tools' Rapid Evidence Service has been published (Neil-Sztramko *et al.*, 2021). The paper provides an overview of the review process with rationale for methodological decisions.

Research Question

What is known about strategies to implement evidence-informed practice at an organizational level?

Search

On March 18, 2022, the following databases were searched from 2012 onward using key terms implement*, integrat*, knowledge broker*, transform*, organizational culture, organizational innovation, organizational case studies, change management, capacity building, evidence-based, evidence based, knowledge translation, knowledge exchange:

- MEDLINE database
- Embase
- Ovid Emcare
- Global Health Database
- PsycINFO
- Web of Science

In addition to the above searches, literature by key contributors was screened through a targeted search of their publications.

A copy of the full search strategy is available in Appendix 1.

Study Selection Criteria

English-language, peer-reviewed sources and sources published ahead-of-print before peer review were included.

	Inclusion Criteria	Exclusion Criteria
Population	Public sector health-related service-delivery organizations, e.g., public health departments and authorities, health care setting (hospitals, clinics), social services Department or team within an organization	Private sector Academia, schools
Intervention	Organization-wide interventions to shift to evidence informed practice	For implementation-focused studies, interventions implemented by an external organization
Comparisons		
Outcomes	At organizational level: • Behaviour change • Confidence, skills • Patient-level data e.g., quality indicators data for medication errors • Evidence Informed Decision Making (EIDM) embedded in organizational processes (e.g., recruitment), professional development, decision making processes and mechanisms • Shift in culture • Changes in budget allocation Both quantitative and qualitative	Implementation studies that measure fidelity
Setting	Organisation for Economic Co-operation and Development (OECD) countries	Low- and Middle-Income Countries (LMICs)
Design	Primary studies	Opinion pieces, editorials

Data Extraction and Synthesis

Data relevant to the research question, such as study design, setting, location, interventions, outcomes and findings were extracted when reported. We synthesized the results narratively due to the variation in methodology and outcomes for the included studies.

Appraisal of Evidence Quality

We evaluated the quality of included evidence using critical appraisal tools as indicated by the study design below. Quality assessment was completed by one reviewer and verified by a second reviewer. Conflicts were resolved through discussion.

Study Design	Critical Appraisal Tool
Case Report	Joanna Briggs Institute (JBI) Checklist for Case Reports
Qualitative	Joanna Briggs Institute (JBI) Checklist for Qualitative Research
Single group pre-post studies	Joanna Briggs Institute (JBI) Checklist for Quasi-Experimental Studies
Randomized Controlled Trial	Joanna Briggs Institute (JBI) Checklist for Randomized Controlled Trials

Completed quality assessments for each included study are available on request.

Single group pre-post studies were assessed as quasi-experimental studies. Studies that conducted formal qualitative analysis were assessed as qualitative studies, including those labelled by authors as case reports.

Due to the heterogeneity in study outcomes, the Grading of Recommendations, Assessment, Development and Evaluations (GRADE) (Schünemann *et al.*, 2013) approach was not used for this review. Overall certainty of evidence was determined based on the risk of bias of included study designs and study quality.

Findings

Summary of Findings

This review summarizes 38 studies of the implementation of EIDM at the organizational level, as well as 21 studies of the implementation of selected evidence-informed practices or programs across organizations. While these implementation scenarios are similar, they pose distinct challenges for organizations.

Implementation of EIDM at organizations

Implementing EIDM in public health, health or social care organizations requires major organizational change because new approaches to decision making and providing care are often needed. Major change at an organization is complex, generally takes multiple years to achieve and requires ongoing dedicated resource investment. Due to the heterogeneity of study designs, interventions, and outcomes, it is not possible to determine which EIDM implementation strategies are more effective compared to others. Evaluation of strategies implemented by studies in this review was often qualitative and described facilitators and barriers, rather than quantitatively measuring effectiveness. However, it is possible to explore EIDM implementation strategies and factors that appear to contribute to or inhibit success.

The most common strategy implemented in included studies was the establishment of Knowledge Broker-type roles, which was the primary strategy in 22 studies. While studies described roles differently, e.g., "Evidence-based Practice Facilitator", "Evidence Facilitator", "EIDM Mentor", these roles all served to support EIDM across organizations though knowledge sharing, evidence synthesis, implementation, other EIDM-related activities. In some studies, Knowledge Brokers were external to the organization, while in others, Knowledge Brokers were developed among existing staff. Knowledge Broker strategies were mostly implemented in parallel with other EIDM implementation strategies, such as capacity building for staff, integrating EIDM into decision-making processes and development of leadership to support EIDM. When these strategies were evaluated quantitatively for organizational capacity, culture and implementation of EIDM, most studies found increases although some studies found no change following implementation of Knowledge Broker roles. Qualitatively, most studies described facilitators and barriers to EIDM, either through formal qualitative analysis or case report. Facilitators included organizational culture with supportive leadership and staff buy-in, expectations to use evidence to inform decisions, accessible knowledge, and integration of EIDM into processes and templates. Barriers included limited time and competing priorities, staff turnover, and lack of understanding and support from management.

Ten included studies focused primarily on building EIDM capacity of existing staff at the organization, often at multiple levels, e.g., front-line service providers, managers and leadership. Capacity building was typically done through EIDM-focused workshops, often with ongoing follow up support from workshop facilitators. These studies of organizational capacity building for EIDM typically did not use other strategies to implement EIDM. While studies often measured changes in individual knowledge and skill for EIDM for workshop participants, organizational change for EIDM was reported qualitatively, either through formal qualitative analysis or through a case report. Facilitators for EIDM included organizational culture with supportive leadership and staff buy-in, dedicated staff roles to support EIDM, opportunities to

meet and discuss EIDM (e.g., communities of practice, journal clubs), knowledge sharing across the organization, expectations to use evidence to inform decisions, accessible knowledge, and integration of EIDM into processes and templates. Barriers included limited time and competing priorities, staff turnover, and negative attitudes toward EIDM.

Research or academic partnerships and networks were the main strategy described in three case reports. These involved establishing collaborations, either through universities or non-governmental health organizations, that provided direct EIDM support. These strategies were not evaluated quantitatively but described facilitators and barriers to effect cross-sector collaborations. Facilitators for EIDM included supportive leadership and management, dedicated staff roles to support EIDM, EIDM knowledge and skill development for staff, and regular communication between partners. Barriers included limited time and competing priorities, preference for experiential over research evidence, and negative attitudes toward EIDM.

Common facilitators and barriers identified among included studies suggest key components of an EIDM strategy. In order to affect behaviour change, strategies must address capability for change, which may be achieved by building staff capacity, establishing dedicated support roles, improving access to evidence, and sharing knowledge across the organization. Strategies must also enable opportunities for change, which may be supported through forums for EIDM learning and practice, protecting time for EIDM, integrating EIDM into new or existing roles, and adding EIDM to processes and templates. Behaviour change also requires motivation, which may be built through a supportive organizational culture, expectations to use EIDM, recognition and positive reinforcement, and strong support from leadership Using multiple strategies that address capability, opportunity and motivation increases the likelihood of effective and sustained change.

Implementation of EIPs

Studies of implementing EIPs in public health, health or social care organizations reveal the complexity of implementation strategies. Many included implementation studies describe multiple concurrent strategies. The most common strategy used in studies of EIP implementation was the establishment of a dedicated role or team to support implementation (n=11). These dedicated staff or teams were responsible for implementation planning, management, and evaluation. The next most common strategy was workforce education (n=8), which typically involved workshops for staff at multiple levels of the organization, providing orientation to and the impetus for the new practice. Supplemental resources, for example manuals and visual prompts, were provided to staff in several studies (n=5). Another strategy for implementation was the engagement of providers and staff at organizations in the development of implementation plans in many studies (n=7). In some studies, implementation planning for EIPs was adapted to organizational context (n=4) or informed by barrier analysis (n=2). Many implementation strategies included ongoing evaluation of implementation while providing feedback to providers (n=5).

In terms of facilitators for successful implementation of evidence-informed practice, many studies describe the strategies listed above as facilitators. Additional facilitators include

staff desire for change, supportive leadership, consistent communication and messaging, and a culture of learning.

Barriers for implementation were fairly consistent across studies. Barriers included a lack of staff knowledge and understanding of the new program, poor communication between the implementation team and providers or staff, staff turnover and loss of knowledge, lack of both time and personnel, and complexity of programs.

Common Strategies for Implementing EIDM and EIPs

Many of the facilitators and barriers to EIDM and EIP implementation are common across strategies explored by the studies included in this review. To conceptualize these factors, they are presented according to the COM-B model for behaviour change (Michie, 2011) in **Figure 1**. The COM-B model outlines key factors that contribute to sustained behaviour change: capability, opportunity, and motivation. The model proposes that modifications to any of these three factors will influence behaviour change.

Capability

Can this behaviour be accomplished in principle?

Facilitators
Staff knowledge and skill development; establishing specialized roles; knowledge sharing across organization

Barriers
Lack of knowledge and skill; lack of time; staff turnover

Opportunity

Is there sufficient opportunity for behavior to occur?

Facilitators
Development of processes or mechanisms to support new practices; forums for learning and skill development (e.g., communities of practice, journal clubs); protected time

Barriers
Competing priorities

Motivation

Is there sufficient motivation for the behavior to occur?

Facilitators
Supportive organizational culture; expectations for use of new practices; recognition and positive reinforcement; strong leadership support

Barriers
Negative attitudes toward new practices, lack of support and understanding from management
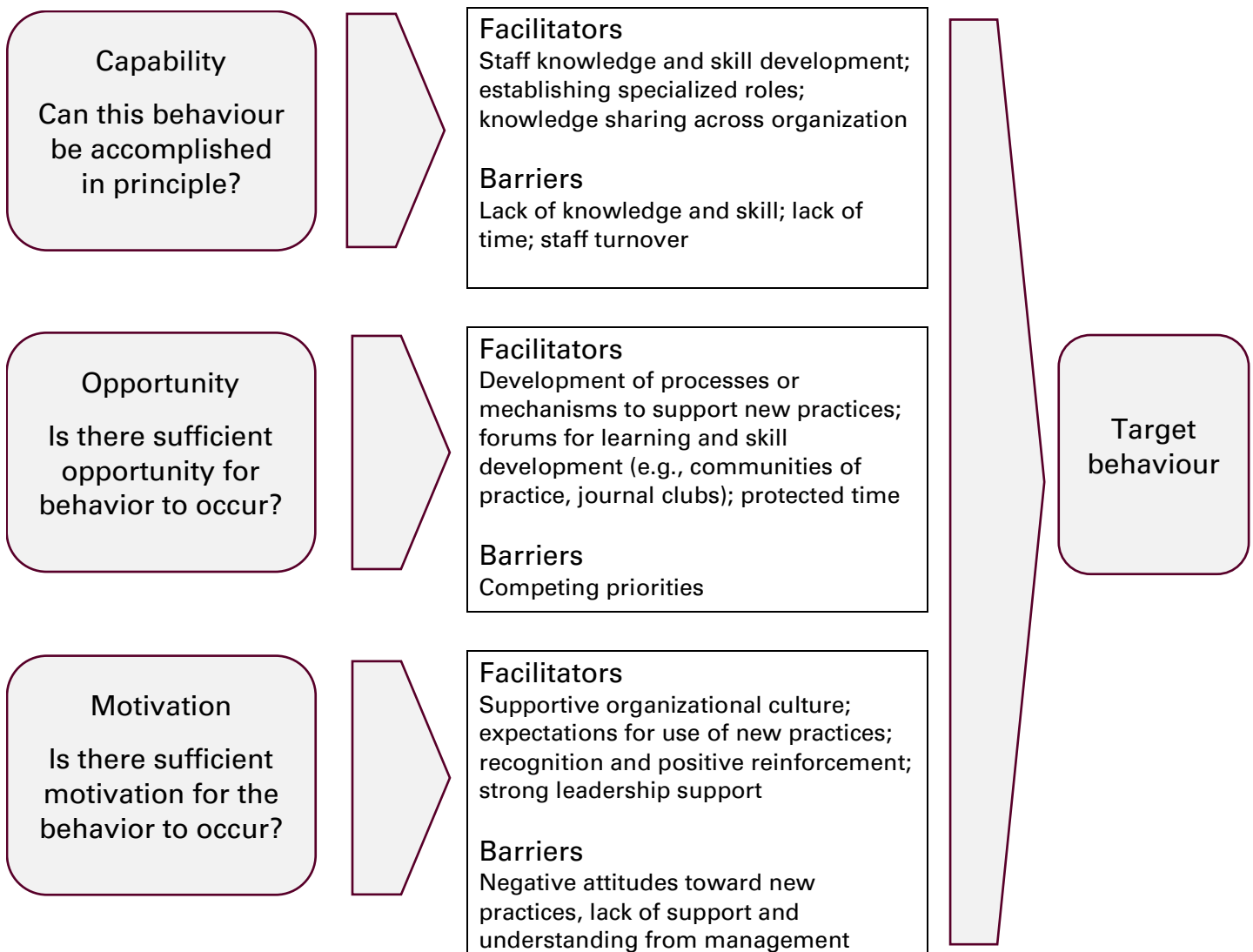
Target behaviour

Figure 1: Facilitators and barriers to organizational implementation of EIDM mapped to the COM-B model.

Summary of Evidence Quality

This document includes 38 single studies of implementation at EIDM at an organization and 21 single studies of implementation of an evidence-informed practice, for a total of 59 publications included in this review.

For studies of organization-wide EIDM implementation, a lack of control groups contributed to a higher risk of bias. However, given the highly context-dependent nature of these interventions, the certainty of study findings may not have necessarily been improved by including a control group. Most included studies were rated Moderate or High quality according to their respective quality assessment tools. Therefore, the overall certainty of evidence for this body of literature was rated as Moderate.

Likewise, studies of EIP implementation also lacked a control group contributing to a higher risk of bias. However, given the highly context-dependent nature of these interventions, the certainty of study findings may not have necessarily been improved by including a control group. Included studies were rated Moderate or High quality according to their respective quality assessment tools, but given that this literature was dominated by case reports with non-systematic assessments of outcomes, the overall certainty of evidence for this body of literature was rated as Low.

Research Question	Focus	Evidence included	Quality Rating	Overall certainty in evidence
What is known about strategies to implement evidence-informed practice at an organizational level?	Implementation of EIDM at Organizations	Randomized controlled trial Single group pre-post Case report Qualitative	2 Moderate 4 High, 6 Moderate 6 High, 9 Moderate, 2 Low 5 High, 4 Moderate	Moderate
	Implementation of Evidence-informed Practice or Programs	Single group pre-post Case report Qualitative	1 High, 5 Moderate 8 High, 5 Moderate 2 High	Low

Conclusions

This review explored the implementation of EIDM at the organizational level, as well as the implementation of selected evidence-informed practices or programs across organizations. Despite the similarly of these implementation challenges, studies used distinct strategies for implementation. The facilitators and barriers described in included studies provide insight for planning and achieving successful implementation.

Table 1: Single Studies (Implementation of EIDM at Organizations)

Reference	Study Design	Setting, Timeline	Sector	Level	Framework	Intervention	Outcomes (Tool)	Findings	Quality Rating (Tool)
Clark, E.C., Dhaliwal, B., Ciliska, D., Neil-Sztramko, S.E., Steinberg, M., & Dobbins, M. (2022). A pragmatic evaluation of a public health knowledge broker mentoring education program: a convergent mixed methods study. *Implementation science communications*, *3*(1), 18.	Mixed methods No comparator	Public Health Units Ontario, Canada 2015-2018	Public Health	4-8 staff members from each of 10 public health units	Not applicable	Organizational goals for EIDM were set by senior leadership during a facilitated focus group using the Is Research Working for you organizational assessment. A Knowledge Broker mentoring program, delivered by knowledge translation specialist mentors, included workshops, webinars, consultations between participants and mentors, and completion of a rapid review.	Quantitative: -Attainment of organizational goals for EIDM (semi-structured interviews) Qualitative: -EIDM facilitators and barriers (semi-structured interviews)	Facilitators for EIDM: -Integration of EIDM into process through structures, processes, or templates -New or re-defined staff positions for EIDM -Leadership support -Culture of expectations that decisions use EIDM -Acceptance of time for learning and doing EIDM Challenges to EIDM: -Lack of EIDM knowledge among management -Lack of protected time -Lack of staff buy-in -Lack of direction or plan for participants	High (Qualitative)
Hooge, N., Allen, D.H., McKenzie, R., & Pandian, V. (2022). Engaging advanced practice nurses in evidence-based practice: An e-mentoring program. *Worldviews on evidence-based nursing*, *19*(3), 235-244.	Single group pre-post study No comparator	Large academic health system Southeast region, United States 12-week program	Primary Care	11 Advanced practice registered nurses	IOWA Model of Evidence-Based Practice	Virtual mentoring program delivered via Microsoft Teams platform included synchronous training sessions, podcasts, blog and video tutorials, and additional research articles and educational material.	Quantitative: -Knowledge and skill for EIDM (evidence-based practice beliefs scale, evidence-based practice implementation scale) -Organizational readiness for EIDM (organizational culture and readiness for system-wide	Compared to baseline, evidence-based practice beliefs scores increased (effect size=0.71, p=0.018). No significant change in evidence-based practice implementation and organizational culture and readiness for system-wide implementation of evidence-based practice scale scores.	High (Quasi-experimental study)

							implementation of evidence-based practice scale) Qualitative -EIDM facilitators and barriers (open-ended Facilitators and Barriers Survey developed by project team)	Facilitators for EIDM: -Flexible timing of program -Convenient online format Challenges to EIDM: -Competing priorities -Time management	
Elliott, M.J., Allu, S., Beaucage, M., McKenzie, S., Kappel, J., Harvey, R., … Manns, B. (2021). [Defining the Scope of Knowledge Translation Within a National, Patient-Oriented Kidney Research Network](). *Canadian journal of kidney health and disease, 8.*	Case report No comparator	Canadians Seeking Solutions and Innovations to Overcome Chronic Kidney Disease (Can-SOLVE CKD) Canada Dates not specified	Primary Healthcare	Clinicians, nurses	Can-SOLVE CKD Knowledge Translation Framework	A national integrated KT network (Can-SOLVE CKD) was established, including: -Central knowledge translation committee available for consultation -Support from external partners -KT planning templates -KT champions -KT virtual community of practice -KT online learning module	Findings were described in a narrative case report.	Facilitators for EIDM: -Diverse knowledge base and commitment to knowledge translation of members -Inclusion of patient's perspectives Challenges: -Generalizability of a national research network KT approach to smaller individual project teams -Lack of KT skills among research and patient partners	Moderate (Case report)

Citation	Study Design	Setting	Field	Population	Comparator	Intervention	Measurement	Findings	Quality
Flaherty, H.B., Bornheimer, L.A., Hamovitch, E., Garay, E., Mini de Zitella, M.L., Acri, M.C., & McKay, M. (2021). Examining Organizational Factors Supporting the Adoption and Use of Evidence-Based Interventions. *Community Mental Health Journal, 57*(6), 1187-1194.	Cluster Randomized Controlled Trial Control group	Outpatient child mental health clinics New York, United States Dates not specified	Primary Healthcare	52 child mental health care providers	Not applicable	Providers at child mental health care agencies implemented the 4Rs and 2Ss Multiple Family Group intervention. Providers received training and bimonthly supervision. Clinic Implementation Teams operated at agencies randomized to the intervention arm.	Quantitative: Frequency of use of new techniques (Training Exposure and Utilization Scale), and organizational climate (Texas Christian University's Organizational Readiness for Change Scale)	Increased use of evidence-based interventions was associated with providers' belief that organizational climate supported use of evidence-based interventions (b=−0.33, SE=0.11, p<0.01).	Moderate (Qualitative)
Martin-Fernandez, J., Aromatario, O., Prigent, O., Porcherie, M., Ridde, V., & Cambon, L. (2021). Evaluation of a knowledge translation strategy to improve policymaking and practices in health promotion and disease prevention setting in French regions: TC-REG, a realist study. *BMJ open*, *11*(9), e045936.	Case report No comparator	Regional health agencies France 2017-2019	Public Health	Health professionals and decision-makers across regional health agencies	Not applicable	The Transfert de Connaissances en REGion (TC-REG) knowledge translation plan includes: -Increasing access to scientific evidence -Developing skills for EIDM through training, journal clubs and tutoring -Developing organizational culture for EIDM through collaborative workshops, establishing processes, and incentives	Qualitative: - EIDM facilitators and barriers (unstructured interviews) -Use of EIDM (semi-structured interviews)	Facilitators for EIDM: -Understanding of scientific evidence -Confidence in using scientific evidence -Ability to search and find scientific evidence -Motivation to use scientific evidence -Belief that scientific evidence can help to improve practice, develop new frameworks, advocate for their professional activity, and create new partnerships	Moderate (Case report)
Augustino, L.R., Braun, L., Heyne, R.E., Shinn, A., Lovett-	Case report	Military Treatment	Primary Healthcare	Nursing staff at 4 facilities	Not applicable	An evidence based practice facilitator role supported	Findings were described in a narrative case report.	Facilitators for EIDM: -Incorporating the evidence based practice	High (Case report)

Citation	Design	Setting/Country/Year	Field	Scope	Model	Components	Methods	Findings	Quality
Floom, L., King, H., … Hatzfeld, J. (2020). [Implementing Evidence-Based Practice Facilitators: A Case Series](#). *Military medicine*, *185*(Suppl 2), 7–14.	No comparator	Facilities (MTFs) United States 2018				organization-wide EIDM teams through training, mentoring and encouraging EIDM.		facilitator into existing practice -Involving evidence based practice facilitator in nursing meetings and committees -Aligning the evidence based practice facilitator's work with organizational priorities Challenges to EIDM: -Staff turnover -Lack of standardized evaluation of EIDM use	
Haynes, A., Rowbotham, S., Grunseit, A., Bohn-Goldbaum, E., Slaytor, E., Wilson, A., … Wutzke, S. (2020). [Knowledge mobilisation in practice: an evaluation of the Australian Prevention Partnership Centre](#). *Health research policy and systems*, *18*(1), 13.	Case report No comparator	Australian Prevention Partnership Centre Australia 5-year period; dates not specified	Public Health	Organization-wide, in partnership with research institutions	The Prevention Centre's programme model	Six components for cross-sector collaborative partnerships for EIDM: 1. Involve partners at all stages of projects 2. Foster communication, e.g., forums, narrative reports 3. Develop skills through workshops, webinars with experts, cross-sector projects 4. Build cross-sector project teams 5. Integrate knowledge through high-quality evidence synthesis	Quantitative: -Perceptions of leadership, governance, resource allocation, collaboration and engagement (Partnership survey) Qualitative: -Implementation and impact of projects (Project evaluations) -Experiences and perceptions (semi-structured interviews)	Partners reported: -Translation of research into policy was built into processes -Many projects involved partners from different sectors -Communication across sectors and teams was adequate -Capacity building activities were valuable -Identification of synergies across projects	Moderate (Case report)

						6. Assess and adapt through ongoing surveys and opportunities for feedback			
Roberts, M., Reagan, D. R., & Behringer, B. (2020). A Public Health Performance Excellence Improvement Strategy: Diffusion and Adoption of the Baldrige Framework Within Tennessee Department of Health. *Journal of public health management and practice*, *26*(1), 39–45.	Single group pre-post study No comparator	Tennessee Department of Health (TDH) Tennessee, United States 2012-2018	Public Health	Departments, teams, senior leadership across organization	Malcolm Baldrige Performance Excellence framework	Volunteers were trained as "Baldrige examiners", a role similar to a knowledge broker. These volunteers then supported teams at the local health departments evaluate and improve programming.	Quantitative: -Employee satisfaction (survey) -Adoption of new processes (training records) -Integration of new programs (program process reports)	Authors report diffusion of skills across the local health departments. Department staff reported satisfaction with their jobs at rates higher than national averages.	Moderate (Quasi-experimental study)
van der Zwet, R.J.M., Beneken genaamd Kolmer, D.M., Schalk, R., & Van Regenmortel, T. (2020). Implementing Evidence-Based Practice in a Dutch Social Work Organisation: A Shared Responsibility. *The British Journal of Social Work, 50*(7), 2212–2232.	Case report No comparator	Social work organization Netherlands 2013-2015	Social work	Research and development team	Organization's model for evidence-based practice implementation, based on Plath, 2013 (see below)	Establishment of a research and development department and long-term collaboration with a university to support EIDM	Qualitative: -EIDM facilitators and barriers (semi-structured interviews)	Facilitators for EIDM: -Strong leadership with commitment to research -Qualified staff in dedicated EIDM support roles -Research partnerships -Training in EIDM -Targeted recruitment of staff with various educational backgrounds Challenges to EIDM: -Lack of qualified staff -Lack of EIDM understanding -Negative attitudes towards EIDM	High (Case report)

								-Preference for experiential vs. research knowledge -Culture of crisis-driven practice -Workload, time management, competing priorities	
Williams, N.J., Wolk, C. B., Becker-Haimes, E. M., & Beidas, R.S. (2020). Testing a theory of strategic implementation leadership, implementation climate, and clinicians' use of evidence-based practice: a 5-year panel analysis. *Implementation science*, *15*(1), 10.	Single group pre-post study	Outpatient children's mental health clinics Philadelphia, United States 2013-2017	Primary Healthcare	Senior leadership across agencies	Policy ecology framework	Development of organizational leadership and climate for EIDM through training, consultation and technical assistance.	Quantitative: -EIDM use (Cognitive-behavioral therapy subscale of the Therapy Procedures Checklist-Family Revised) -Leadership for EIDM (Implementation Leadership Scale) -Organizations' climates for EIDM (Implementation Climate Scale) -Perceptions of leader's transformational leadership (Multifactor Leadership Questionnaire) -Attitudes toward EIDM (Evidence-based Practice Attitudes Scale)	Organizational climates supportive of EIDM were associated with: -Strong leadership for EIDM (d=0.92, p=0.017) -Increased use of EIDM (d=.55, p=0.007) There was no association between clinicians' attitudes towards EIDM and their use of EIDM.	High (Quasi-experimental study)

Citation	Study design	Setting	Field	Participants	Framework	Intervention	Measures	Findings	Quality
Dobbins, M., Greco, L., Yost, J., Traynor, R., Decorby-Watson, K., & Yousefi-Nooraie, R. (2019). A description of a tailored knowledge translation intervention delivered by knowledge brokers within public health departments in Canada. *Health Research Policy and Systems*, *17*(1), 63.	Single group pre-post study No comparator	3 Public Health Units Ontario, Canada 2010-2012	Public health	All staff at organization, senior leadership	Not applicable	Knowledge Brokers deployed to public health units supported individual capacity and organizational culture for EIDM. Knowledge brokers held workshops, mentoring, meetings with senior management and developed policies and processes for EIDM.	Quantitative: -knowledge, skills and behavioral assessment (survey) Qualitative: -EIDM facilitators and barriers (analysis of knowledge brokers journals)	Facilitators for EIDM: -Strong leadership support -Systematic integration of research evidence into decision-making processes -Access to librarians -Committed financial and human resources -Interest and enthusiasm from participating staff	Moderate (Quasi-experimental study)
Hitch, D., Lhuede, K., Vernon, L., Pepin, G., & Stagnitti, K. (2019). Longitudinal evaluation of a knowledge translation role in occupational therapy. *BMC health services research*, *19*(1), 154.	Case report No comparator	Public mental health service Major city in Australia 2014-2016	Occupational therapy	Occupational therapists within the organization	Not applicable	Leadership role in KT established to support EIDM, complete research projects, build research capacity and culture, and create a database of research activity.	Quantitative: -Attitudes towards EIDM (Evidence Based Practice Attitude Scale) -EIDM use (Evidence Based Practice Implementation Scale) -Staff perceptions of the Lead Research Occupational therapist role (survey)	After implementation of the KT role, -number of quality assurance and research activities increased (Cliffs Delta=0.44; 95% CI=0.22, 0.62) -no significant change in attitudes towards EIDM -staff viewed KT role positively -staff engaged in KT activities -greater diffusion of evidence across programs	Moderate (Case report)
Mackay, H.J., Campbell, K.L., van der Meij, B.S., & Wilkinson, S.A. (2019). Establishing an evidenced-based dietetic model of care in haemodialysis using implementation	Single group pre-post study No comparator	Haemodialysis unit, hospital Queensland, Australia 2016-2018	Primary healthcare	All staff at organization	Knowledge-to-Action (KTA) Framework, Theoretical Domains Framework (TDF), Behaviour change wheel	A new nutrition service was established to translate nutrition guidelines into practice to support EIDM through: -professional development	Quantitative: EIDM use, malnutrition prevalence (database audit, Patient-Generated Subjective Global Assessment tool) Qualitative: EIDM facilitators and	There was no significant change in malnutrition categories; most patients (72-80%) began the program well-nourished. Facilitators for EIDM: -Establishing processes for best practices	Moderate (Quasi-experimental study)

Citation	Study design	Setting	Field	Population	Framework	Intervention	Data collection	Results/Findings	Quality
science. Nutrition & Dietetics, 76(2), 150-157.						-evidence-informed recommendations -multidisciplinary staff involvement -integrated database prompts	barriers (clinic observation, team discussion)	-Buy-in from staff and management-in from staff and management -Regular monitoring and feedback Barriers, mapped to TDF domains, included: -Limited prior knowledge -Limited time	
Williams, C., van der Meij, B.S., Nisbet, J., Mcgill, J., & Wilkinson, S.A. (2019). Nutrition process improvements for adult inpatients with inborn errors of metabolism using the i-PARIHS framework. Nutrition & Dietetics, 76(2), 141-149.	Single group pre-post study No comparator	Metabolic specialist centres Australia, New Zealand 2015-2017	Primary healthcare	Metabolic dietetic service within organization	Integrated-Promoting Action on Research Implementation in Health Services (i-PARIHS) framework	The metabolic dietetic service established: -Electronic referral alert -Metabolic sick day nutrition plans available to all clinical staff -Metabolic diet codes and specialised formula recipes	Quantitative: admissions for patients with inborn errors of metabolism (chart audit)	There was a reduction in total admissions of patients with inborn errors of metabolism (36 vs. 11 across the audit periods; unclear if this was a statistically significant finding.)	Moderate (Quasi-experimental study)
Allen, P., Jacob, R.R., Lakshman, M., Best, L.A., Bass, K., & Brownson, R.C. (2018). Lessons Learned in Promoting Evidence-Based Public Health: Perspectives from Managers in State Public Health Departments. Journal of Community Health, 43(5), 856–863.	Qualitative	State health departments United States 2016	Public Health	Leaders and program managers	State health department evidence-based public health capacity building framework	A larger Randomized Controlled Trial randomized state health departments to an intervention group that received EIDM training and support or a control group that received links to electronic resources. (See Brownson, 2017)	Qualitative: EIDM facilitators and barriers (structured interviews)	Facilitators for EIDM: -Leadership support -Developing structures and culture incorporating evidence based public health -Ongoing training -Building and maintaining partnerships with external partners Challenges to EIDM: -Funding/budget cuts -Lack of time -Lack of political will/support	Moderate (Qualitative)

Citation	Design	Setting	Field	Population	Framework	Intervention	Outcome	Results	Quality
								-Staff turnover	
Allen, P., O'Connor, J.C., Best, L.A., Lakshman, M., Jacob, R.R., & Brownson, R.C. (2018). Management Practices to Build Evidence-Based Decision-Making Capacity for Chronic Disease Prevention in Georgia: A Case Study. *Preventing Chronic Disease, 15*, E92.	Case report No comparator	State health department Georgia, United States 2013-2016	Public Health	Program staff across organization	Brownson's evidence-based public health framework	Program staff received training for EIDM that included lectures, and small group problem-solving and discussion.	Qualitative: EIDM facilitators and barriers (interviews)	Facilitators for EIDM: -Leadership support -Consistent internal messaging on EIDM -Close partnerships with evaluation teams -Requirement for evidence in proposals Challenges to EIDM: -Competing priorities -Limited budget for staff -Political conflicts in state and local agendas	High (Case report)
Brodowski, M.L., Counts, J.M., Gillam, R.J., Baker, L., Collins, V.S., Winkle, E., … Redmon, J. (2018). Translating Evidence-Based Policy to Practice: A Multilevel Partnership Using the Interactive Systems Framework. *Families in Society*. *The Journal of Contemporary Social Services, 94*(3), 141-149.	Case report No comparator	Social service agencies, Kansas and Nebraska, United States 2005-2011	Social work	Social service providing organizations	Interactive Systems Framework for Dissemination and Implementation	A workgroup of state-led agencies and federal partners developed a framework for infrastructure for EIDM, including federal policy for invested in evidence-based programs and quality improvement. Technical assistance was provided to community-based programs through a third party.	Quantitative: Use of EIDM (annual reported funding for evidence-based programs) Qualitative: EIDM facilitators (interviews)	The percentage of funded programs that were evidence-based increased from 29% to 63%. Facilitators for EIDM: -Strong infrastructure (outreach, training, fidelity assessment, supervision, management of the program -Availability of Technical Assistance: -Consideration of context when using EIDM to choose programs -Active engagement and collaboration with key stakeholders at all levels	Moderate (Case report)
Brownson, R.C., Allen, P., Jacob, R.R., deRuyter, A., Lakshman, M., Reis, R.S., & Yan, Y. (2017). Controlling Chronic Diseases	Randomized Controlled Trial	State health departments United States March 2014 and March 2015	Public Health	Program staff across organization	Not applicable	State health departments randomized to: -Intervention group that received EIDM training workshop, and follow-up calls	Quantitative: perceived organizational skills and culture for EIDM (survey)	Following the intervention, -Perceived skills gaps decreased (p=0.02). -Perceived supervisory expectation for use of EIDM increased (p=0.006)	Moderate (Randomized Controlled Trial)

Through Evidence-Based Decision Making: A Group-Randomized Trial. *Preventing chronic disease*, *14*, E121.						for technical assistance and supplemental activity planning and updates support -Control group that received links to electronic resources.		-Use of evidence increased (p=0.008).	
Melnyk, B.M., Fineout-Overholt, E., Giggleman, M., & Choy, K. (2017). A Test of the ARCC© Model Improves Implementation of Evidence-Based Practice, Healthcare Culture, and Patient Outcomes. *Worldviews on evidence-based nursing*, *14*(1), 5–9.	Single group pre-post study No comparator	Washington Hospital Healthcare System, United States 12 months; dates not specified	Primary Healthcare	Service providers, administrators within organizations	Advancing Research and Clinical practice through close Collaboration (ARCC) Model	EIDM mentors were developed within the healthcare system, through intensive EIDM workshops. Teams of participants implemented and evaluated an EIDM change project within their hospital.	Quantitative: Knowledge and skill for EIDM (evidence-based practice beliefs scale, evidence-based practice implementation scale), organizational readiness for EIDM (organizational culture and readiness for system-wide implementation of evidence-based practice scale), patient outcomes (aggregate data from the hospital's medical records)	Following implementation, -Organizational knowledge and skill for EIDM organization increased (effect size=0.62; p=0.00) -Organizational implementation of EIDM increased (effect size=2.3; p=0.00) -Organizational culture and readiness for EBP increased significantly from baseline (M=80.9; SD=90.8) to follow-up (M=90.8; SD=14.7; t=3.9; p=0.00; effect size=0.70) The following trends were seen in patient outcomes, -Reduction in ventilator days -Decreased pressure ulcer rate -Reduced hospital readmissions for congestive health failure -Increase in patient reported quality of care -Reduced use of formula as a supplement -Decreased wait time for pain medication and	Moderate (Quasi-experimental study)

									decreased length of stay in emergency room	
Williams, N.J., Glisson, C., Hemmelgarn, A., & Green, P. (2017). [Mechanisms of Change in the ARC Organizational Strategy: Increasing Mental Health Clinicians' EBP Adoption Through Improved Organizational Culture and Capacity](). *Administration and Policy in Mental Health and Mental Health Services, 44*(2), 269-283.	Single group pre-post study No comparator	Children's mental health agencies Large mid-Western urban area, United States 2010-2013	Primary Healthcare	CEOs and administrators, and front-line clinical teams at organizations	Availability, Responsiveness, and Continuity Organizational Strategy	External facilitators supported leadership, staff and an internal liaison. Principles of EIDM were integrated into the organizations' operating procedures. Organizational infrastructure and tools to enable EIDM were developed. Staff and leadership mental models to support EIDM were enabled.	Quantitative: Intentions to adopt EIDM, barriers to EIDM (surveys), Unit-level enactment of Availability, Responsiveness, and Continuity principles and completion of planned activities (ARC principles questionnaire), Organizational proficiency culture for EIDM (Organizational Social Context measure)	Clinicians exhibited: -Higher odds of adopting EIDM (OR=3.19, p=0.003) -Greater use of EIDM with clients (p=0.003) -Fewer EIDM barriers (p=0.026) Intention to use EIDM was the only predictor of EIDM adoption (p=0.032) and EIDM use (p=0.002).	High (Quasi-experimental study)
Bennett, S., Whitehead, M., Eames, S., Fleming, J., Low, S., & Caldwell, E. (2016). [Building capacity for knowledge translation in occupational therapy: learning through participatory action research](). *BMC medical education, 16*(1), 257.	Case report No comparator	Large urban hospital Australia 18 months, dates not specified	Primary Healthcare	Occupational therapists in hospital	Knowledge to Action Framework, Theoretical Domain Framework	An EIDM capacity building program was implemented. The program included: -Educational outreach across organization -Teams working on clinical case studies -Allocating time for EIDM -Mentorship -Leadership support -Communication regarding EIDM -Development of EIDM processes and resources	Qualitative: EIDM use, perceptions of organizational culture toward EIDM, EIDM facilitators and barriers (focus groups with clinicians and observations by the research team)	Facilitators for EIDM: -EIDM integration into roles -Buy-in to EIDM impact -Developing goals for EIDM -Access to mentors -Supportive leadership -Breaking down EIDM into manageable tasks -Journal club to discuss EIDM processes Challenges to EIDM: -Lack of EIDM knowledge and skill -Perceived lack of capability -Perceived lack of time and training -Competing priorities	Moderate (Case report)

Citation	Study design	Setting	Healthcare	Population	Framework	Intervention	Measures	Findings	Quality
						-Funding for an EIDM champion one day per week -Setting goals and targets for EIDM -EIDM reporting and evaluation		-Challenges with staff rotating between clinical teams	
Awan, S., Samokhvalov, A.V., Aleem, N., Hendershot, C.S., Irving, J.A., Kalvik, A., … Voore, P. (2015). Development and Implementation of an Ambulatory Integrated Care Pathway for Major Depressive Disorder and Alcohol Dependence. *Psychiatric services, 66*(12), 1265–1267.	Case report No comparator	Centre for Addiction and Mental Health (CAMH) Toronto Ontario, Canada 2013-2014	Primary Healthcare	Service providers, researchers at organization	Not applicable	An integrated care pathway, which relies on EIDM, was implemented for patients with concurrent major depressive disorder and alcohol dependence. Development of the integrated care pathway included evidence reviews, knowledge translation, process reengineering and change management.	Quantitative: -patient symptom assessment and medication titration (Penn Alcohol Craving Scale, Quick Inventory for Depressive Symptoms scores and Beck Depression Inventory) Qualitative: -Facilitators and barriers (focus groups)	Evaluation of patient care found: -Lower program dropout (78% to 46% p<0.05) -Reduction in depressive symptom severity (p-value not reported) -Reduction in heavy drinking days (42% to 23%, p<0.04) Facilitators: -Inclusion and frontline clinicians -Use of tools/templates (e.g., process maps, medication algorithms) -Team meetings Challenges: -Lack of knowledge and skill for EIDM -Communication with referring providers	Moderate (Case report)
Breckenridge-Sproat, S.T., Throop, M.D., Raju, D., Murphy, D.A., Loan, L.A., & Patrician, P.A. (2015). Building a Unit-Level Mentored	Single group pre-post study No comparator	Military Hospitals Washington, District of Columbia, United States	Primary Healthcare	Nurses across hospitals	Advancing Research and Clinical practice through close Collaboration (ARCC) Model	Unit-level mentors facilitated an educational mentoring program for EIDM. The intervention involved an organizational	Quantitative: -EIDM beliefs (Evidence-Based Practice Beliefs) -Organizational readiness and barriers to EIDM (Organizational	Following the intervention, -Evidence based practice belief scores increased (p=0.02) -Organizational readiness for EIDM scores increased (p<0.01)	Moderate (Quasi-experimental study)

[Program to Sustain a Culture of Inquiry for Evidence-Based Practice](). *Clinical Nurse Specialist, 29*(6), 329-337.		18 months; dates not specified				assessment, identification of facilitators and barriers, training EIDM mentors and EIDM implementation. Librarian support, evidence-based practice education material, training modules were provided and supervised study team evidence-based practice projects were completed.	Readiness for System-wide Integration of Evidence-Based Practice) -EIDM implementation (Evidence-Based Practice Implementation Scales)	

Parke, B., Stevenson, L., & Rowe, M. (2015). Scholar-in-Residence: An Organizational Capacity-Building Model to Move Evidence to Action. *Canadian Journal of Nursing Leadership, 28*(2), 10-22.	Case report No comparator	Island Health and the University of Alberta British Columbia, Canada 2012-2014	Primary Healthcare	Whole organization	N/A	Scholar-in-residence roles was established to integrate practice, education, and research through collaboration between a health region and a university. Activities included: -Unit-based research teams that conducted literature reviews, literature appraisal -Workshops on writing for publication, research methods skills -Funded research project proposal writing, ethics applications, data collection and analysis -Publications and presentations -Quality improvement through collaboration with community, hospitals and university	Findings were described in a narrative case report.	Challenges to EIDM: -Cultural differences between the healthcare and university system -Establishing protected time for research in the health organization -Building relationship between the scholar and hospital staff	Moderate (Case report)

Waterman, H., Boaden, R., Burey, L., Howells, B., Harvey, G., Humphreys, J., … Spence, M. (2015). Facilitating large-scale implementation of evidence based health care: insider accounts from a co-operative inquiry. BMC health services research, 15, 60.	Qualitative	The Greater Manchester Collaboration for Leadership in Applied Health Research and Care (GM-CLAHRC) Manchester, United Kingdom Dates not specified	Public Health	Organization	Knowledge Transfer Partnership model	KT Associates facilitated the implementation of EIDM. KT Associates joined teams responsible for implementing EIDM along with the clinical lead, academic lead and program manager.	Qualitative: -Evaluation of KT Associates' role and impact (focus group and interviews)	KT Associates contributed to 4 key stages: -Choosing an evidence-based intervention (collecting information, bringing stakeholders together, identify context, build up network) -Planning the evidence-based intervention (collecting evidence, testing the intervention, sharing info, expanding networks, stakeholder meetings) -Co-ordinating and implementing the evidence-based intervention recruit people and build relationships, individualized support, communication, understanding context) -Evaluating evidence-based intervention (data collection/report, patient and staff experiences, celebratory events, poster/presentations)	High (Case report)
Fernández, M.E., Melvin, C.L., Leeman, J., Ribisl, K.M., Allen, J.D., Kegler, M.C., … Hebert, J.R. (2014). The cancer prevention and control research network: An interactive systems approach to advancing cancer	Case report No comparator	The Cancer Prevention and Control Research Network (CPCRN) United States Dates not specified	Public Health	National network	Interactive Systems Framework for Dissemination and Implementation (ISF)	Workgroups across the network facilitated activities, including: -building the capacity of service providers for EIDM -developing technical assistance for KT	Findings were described in a narrative case report.	Successful EIDM activities were described, including the following. Network members translated and adapted the evidence-based Stanford Chronic Disease Self-Management program which was well attended and highly rated by participants. Cancer screening programs were	High (Case report)

Citation	Design	Setting	Sector	Participants	Comparator	Intervention	Outcomes	Findings	Quality
control implementation research and practice. *Cancer Epidemiology, Biomarkers & Prevention, 23*(11), 2512–2521.						-developing research partnerships -investigating implementation processes from other studies		adapted to the local context, increasing uptake among residents. Several partner universities have implemented workplace health promotion interventions.	
Gallagher-Ford, L. (2014). Implementing and sustaining EBP in real world healthcare settings: transformational evidence-based leadership: redesigning traditional roles to promote and sustain a culture of EBP. *Worldviews on Evidence-Based Nursing 11*(2), 140-142.	Case report No comparator	Large, complex healthcare system USA Dates not specified	Primary Healthcare	Departments across an organization	Not applicable	A nurse administrator promoted and sustained a culture of evidence-based practice through the following activities: -Organizational assessments -Developing clinical nurse specialists as EIDM champions -Mentoring individuals through the change process	Findings were described in a narrative case report.	Clinical nurse specialists have championed EIDM across the organizations. More than 13 projects for EIDM were initiated by clinical nurse specialists.	Low (Case report)
Gifford, W., Lefebre, N., & Davies, B. (2014). An organizational intervention to influence evidence-informed decision making in home health nursing. *The Journal of Nurse Administration, 44*(7/8), 395-402.	Qualitative	Large community based healthcare organization delivering home and community healthcare Ontario, Canada 20-week intervention,	Public Health	Management and clinical leaders from 4 units	Not applicable	Strategies to promote EIDM to nurse managers and clinical leaders in home healthcare were implemented, including, -Workshop on EIDM -Mentorship support from experienced "evidence facilitators" -Access to university library services	Quantitative: EIDM use (Is Research Working for You? A Self-assessment Tool and Discussion Guide for Health Services Management and Policy Organizations) Qualitative: Usefulness of intervention, EIDM barriers and facilitators (semi	Following the intervention, participants reported: -More resources to conduct research -Relevant staff to contribute to EIDM discussions -More feedback and rationale on decisions -More information about how evidence influenced decision making in the organization (All p<0.05)	High (Qualitative)

		dates not specified				-Information-sharing activities -Encouragement and recognition Study Limitations: • Social desirability bias • Survey has not been for internal validity • Response rate 97% pre intervention and 40% post intervention Actual decisions made and patient/staff outcomes not measured	structured interviews)	Facilitators for EIDM: • Ongoing education • Linking staff to EIDM experts • Social networking across organization • Recognition for EIDM work • Audit and feedback Challenges to EIDM: • Lack of time • Lack of knowledge, skills, and confidence • Conflicting priorities within the organization • Nursing shortages	
Kaplan, L., Zeller, E., Damitio, D., Culbert, S., & Bayley, K.B. (2014). Improving the culture of evidence-based practice at a Magnet(R) hospital. *Journal for Nurses in Professional Development, 30*(6), 274-280.	Case report No comparator	Magnet-designated hospital USA, November 1, 2012 to May 10, 2013	Primary Healthcare	Nurses across organization	Not applicable	All nurses received an electronic newsletter on EIDM every 2 weeks. A cohort of direct care nurses participated in a series of EIDM workshop to develop, implement, and disseminate an EIDM project.	Quantitative: Organizational readiness for integration of EIDM (The Organizational Culture and Readiness for System-Wide Integration of Evidence-Based Practice Scale), EIDM knowledge and skill (Evidence-Based Practice Beliefs Scale), EIDM implementation (The Evidence-Based Practice implementation Scale)	Following the intervention, perceptions of organizational increased. Confidence in implementing EIDM was not associated with EIDM use. The education level of nurses was positively associated with EIDM use.	High (Case report)

Miro, A., Perrotta, K., Evans, H., Kishchuk, N. A., Gram, C., Stanwick, R. S., & Swinkels, H. M. (2014). Building the capacity of health authorities to influence land use and transportation planning: Lessons learned from the Healthy Canada by Design CLASP Project in British Columbia. *Canadian journal of public health*, *106*(1 Suppl 1), eS40–eS52.	Single group pre-post study No comparator	Fraser Health, Island Health and Vancouver Coastal Health British Columbia, Canada 2010 - 2012	Public health	Organization	Not applicable	Regional health authorities were provided an expert consultant to foster EIDM in land use and transportation plans and policies. The expert worked with staff to develop and facilitate the implementation of the work plans, by conducting a situation assessment, developing capacity-building plan and implementing the plan.	Quantitative: Knowledge and skill for land use and transportation plans/policies (survey) Qualitative: Activities completed at the health units (interviews)	Following the intervention, staff reported: -Increased knowledge And skills -Increased awareness of other organizations working in the area Facilitators for EIDM -New relationships with colleagues in other health authorities, governments and sectors -Increased opportunities for collaboration -Collaboration between health authorities and local governments -New insights on partnership work Challenges to EIDM -Lack of time and resources -Roles and partnerships not clearly defined -Lack of leadership support and integration of this work across the organization	High (Quasi-experimental study)
Traynor, R., DeCorby, K., & Dobbins, M. (2014). Knowledge brokering in public health: a tale of two studies. *Public health*, *128*(6), 533-544.	Randomised Controlled Trial with control group Case report with no comparator	Public Health Unit, Ontario, Canada, RCT 2003–2007, Case report 2009-2013.	Public Health	Organization	Not applicable	Two studies which implemented Knowledge Brokers who conducted initial and ongoing needs assessments for EIDM, knowledge management and internal network development.	Quantitative: social network data, EIDM skills, knowledge and behavior (survey) Qualitative: Knowledge, attitudes and behaviours for EIDM (interviews, journal analysis)	Knowledge brokering intervention was reported to result in increased use of EIDM. Tailoring knowledge broker approaches to the organizational context was most effective. Knowledge brokers were most effective if they were experts in research	High (Qualitative)

						.		methodology and public health, as well as being approachable and patient.	
Irwin, M.M., Bergman, R.M., & Richards, R. (2013). The experience of implementing evidence-based practice change: a qualitative analysis. *Clinical Journal of Oncology Nursing, 17*(5), 544-549.	Case report No comparator	Various healthcare settings United States 2009-2010	Primary Healthcare	Nursing teams	Not applicable	Institute for Evidence-Based Practice Change program was provided to nurses. This program included a 2.5-day workshop on EIDM, literature searching, and development of an implementation plan, project management, and outcomes measurement. The program also provided an experience mentor for EIDM support for 12-months.	Qualitative: -EIDM facilitators and barriers (verbatim log entries from the team champion)	Facilitators for EIDM: -Adequate time -Organizational support -Engagement and teamwork -Communication and planning -Maintaining focus on EIDM goals Challenges to EIDM -Competing priorities -Data collection and measurement challenges -Staff turnover	Low (Case report)
Humphries, S., Hampe, T., Larsen, D., & Bowen, S. (2013). Building organizational capacity for evidence use: the experience of two Canadian healthcare organizations. *Healthcare management forum, 26*(1), 26–32.	Case report No comparator	Regina Qu'Appelle Health Region and Northern Health Alberta and British Columbia, Canada 2008-2011	Public health	Management and staff at organizations	Not applicable	The Value Add through Learning and Use of Evidence (VALUE) initiative was implemented, including, -Learning projects (to practice research literacy and skills) -Liaison roles -Research support -Protected time for EIDM activities -Inter-regional collaboration	Findings were described in a narrative case report.	Lessons learned included: -Staff turnover was a challenge –Potential benefit to promoting evidence use in staff orientation -Evidence use implementation needs to be directed at multiple levels within the organization -Strategies with ongoing real-time research expertise and support were valued by participants	High (Case report)

Plath, D. (2013). Organizational processes supporting evidence-based practice. *Administration in social work, 37*(2), 171-188.	Qualitative	Non-governmental social service organization, Australia Dates not specified	Social work	Staff across organization	Not applicable	Strategies to promote EIDM were implemented, including, -leadership commitment to EIDM -staff champions for EIDM -establishment of EIDM "communities of practice" teams	Qualitative: -EIDM facilitators and barriers and facilitators (interviews and focus groups)	Facilitators for EIDM: -Dedicated staff roles for research and KT -Supportive leadership -Sufficient time, training and resources for EIDM -Audit and feedback of practices -Building frontline staff skills in EIDM -EIDM "communities of practice" Challenges to EIDM: -Competing priorities -Lack of knowledge and skills -Culture of responding to crises	Moderate (Qualitative)
Kimber, M., Barwick, M., & Fearing, G. (2012). Becoming an evidence-based service provider: staff perceptions and experiences of organizational change. *The journal of behavioral health services & research, 39*(3), 314–332.	Qualitative	Kinark Child and Family Services Ontario, Canada 2006-2010	Child and youth mental health	Staff across organization	National Implementation Research Network's model	Multiple EIDM interventions were implemented, including: -leadership support -appointing working group leaders -dedicated time for EIDM	Qualitative: -EIDM facilitators and barriers (survey)	Facilitators for EIDM -Staff understanding the clinical transformation project and stages -Effective leadership -Change culture inclusive of staff and management, and various disciplines -Cross-program collaboration -Protected time -Evaluation to demonstrate benefits of change Challenges to EIDM: -Underutilization of internal staff -Lack of preparation for change	Moderate (Qualitative)

Citation	Study design	Location	Setting	Population	Framework	Intervention	Methods	Findings	Quality
Peirson, L., Ciliska, D., Dobbins, M., & Mowat, D. (2012). Building capacity for evidence informed decision making in public health: a case study of organizational change. *BMC public health, 12*, 137.	Qualitative	Peel Public Health, Ontario, Canada September 2008 to February 2010	Public Health	All staff at organization, including leadership	LEADS in a Caring Environment Framework	Multiple EIDM interventions were implemented, including: -hiring of new leadership supportive of EIDM -development of strategic organizational plan for EIDM -Development of staff knowledge and skills	Qualitative: EIDM facilitators (semi-structured interviews and focus groups, review of documents)	Facilitators for EIDM: -Leadership at the highest level driving EIDM initiatives -Organizational structures (e.g., journal clubs, workshops, library services) -Establishing EIDM specialist roles, training staff in EIDM and encouraging knowledge sharing with co-workers - Supportive organizational culture -Accessible knowledge and sharing knowledge across the organization -Communication around EIDM and its priority to the organization	High (Qualitative)
Ward, M., & Mowat, D. (2012). Creating an organizational culture for evidence-informed decision making. *Healthcare management forum, 25*(3), 146-150.	Case report No comparator	Peel Public Health, Ontario, Canada 2010-11 (4th year of a 10-year initiative)	Public Health	All staff at organization, including leadership	LEADS in a Caring Environment Framework	Key elements of the EIDM strategic approach included: -Structured process for research review -Library reference service -Staff development in EIDM knowledge and skills -Dedicated staff time for EIDM -Active engagement with the research community -Accountability for EIDM at all levels of the organization	Findings were described in a narrative case report.	After 4 years of implementation, there was systematic and transparent application of research to more than 15 program decisions. EIDM was embedded as a cultural norm within the organization. Key lessons identified included: -Identify a senior, influential leader -Commit to a multiyear strategy -Be realistic about the infrastructure needed -Staff support for skill development	Moderate (Case report)

								-Make senior staff accountable for progress -Partner with leading researchers -Invest resources in change management. -Measure progress to communicate successes to staff	

Table 2: Single Studies (Implementation of EIPs)

Reference	Study Design	Setting, Timeline	Sector	Level	Framework	Intervention	Outcomes (Tool)	Findings	Quality Rating (Tool)
Pullyblank, K., Brunner, W., Wyckoff, L., Krupa, N., Scribani, M., & Strogatz, D. (2022). Implementation of Evidence-Based Disease Self-Management Programs in a Rural Region: Leveraging and Linking Community and Health Care System Assets. *Health Education & Behavior*. Epub ahead of print.	Single group pre-post study No comparator	Clinical health departments and community-based organizations Rural, central New York, United States March 2017- Nov 2019	Primary healthcare	Organization	Reach, Effectiveness, Adoption, Implementation, and Maintenance (RE-AIM) framework, Wagner's Chronic Care model and Plan-Do-Study-Act (PDSA) framework	The evidence-based was implemented through a multi-sector collaboration between a rural health care system and a network of community-based organizations. The program established a central recruitment, referral and coordinating office for the region.	Quantitative: Number of referrals (electronic health records), implementation, training, workshop schedules, quality assurance (Living Well internal documents), Workshop attendance and completion (program records)	The number of program workshops offered increased from 4-6/year to 23 by 2019. The number of community-based organizations grew from 4 to 6 counties. The number of non-referring clinics fell from 27 to 9. Health care providers and community-based organizations integrated the Living Well program into their culture of care. The authors concluded that a multi-sector approach using a central coordinating, referral, and recruitment hub can be an effective strategy to implement evidence-based programs in rural locations.	High (Quasi-experimental)
Rodriguez-Quintana, N., Lewis, C.C., Scott, K., Marriot, B., Wahlen, S., & Hindman, R. (2022). Implementation of the Wolverine Mental Health Program, Part 2: Implementation	Single group pre-post study No comparator	Wolverine Human Services Michigan, United States 2013-2018	Social work	Organization	Framework for Dissemination	A cognitive behavioural therapy program was implemented. The program was adapted fit the needs of the population and the multidisciplinary health team. Strategies used	Qualitative: -Implementation facilitators (site visits by the cognitive behavioral therapy intermediary and implementation research team for an	Six key blended strategies: 1)Dedicated implementation teams 2)Progress monitoring 3)Adapting the program to fit the needs of the	Moderate (Quasi-experimental)

Phase. *Cognitive and Behavioral Practice* *29*(1), 227-243.						to support the programs integrated all team members	intensive immersion)	population/organizatio n 4)Training/supervision 5)Consultation calls to support implementation 6)Train the trainers approach (identifying early adopters, capturing and sharing local knowledge, incentives)	
Scott, K., Lewis, C.C., Rodriguez-Quintana, N., Marriott, B.R., & Hindman, R.K. (2022). Implementation of the Wolverine Mental Health Program, Part 1: Adoption Phase. *Cognitive and Behavioral Practice, 29*(1), 214-226.	Case report No comparator	Wolverine Human Services juvenile residential facilities Michigan, United States 2013-2018	Social work	Organization	Framework for Dissemination	Cognitive behavioral therapy was implemented across facilities. Adaptation involved an implementation team, needs assessment, development of an implementation template, site training and ongoing reassessment.	Quantitative: -EIDM needs assessment (Evidence-Based Practice Attitude Scale, Attitudes Toward Standardized Assessment Scale, Organizational Culture Survey, Survey of Organizational Functioning and Infrastructure Survey and Sociometric Opinion Leader Survey) Qualitative: -Perceived effectiveness of implementation Strategies, organizational culture and readiness for change, and impact of infrastructure on new practice	The needs assessment identified 76 barriers; 23 were prioritized and addressed. Barriers included: -Lack of training in evidence-based practice -Poor communication -Low morale among staff -Lack of teamwork -Lack of incentive -High staff turnover At the reassessment 24 of the barriers showed statistically significant improvement.	Moderate (Quasi-experimental)

							implementation (Focus group interviews with clinicians and operations staff)		
Darling, E.K., Easterbrook, R., Grenier, L.N., Malott, A., Murray-Davis, B., & Mattison, C.A. (2021). Lessons learned from the implementation of Canada's first alongside midwifery unit: A qualitative explanatory study. *Midwifery, 103*, 103146.	Case report No comparator	Alongside Midwifery Unit (AMU) Markham Stouffville Hospital (MSH) Markham, Ontario, Canada Nov 2018 – May 2020	Primary healthcare	Unit within a large community hospital	Consolidated Framework for Implementation Research	This report explored the implementation of the first Alongside Midwifery Unit (AMU) in Canada. Implementation included frequent and open communication, dedicated project management, leadership engagement, ongoing evaluation and adaptation.	Qualitative -Facilitators (document analysis and key informant interviews)	Facilitators for implementation: -sociopolitical climate, desire for change, effective project support, dedicated time and resources, ongoing program evaluation and feedback, communication with leadership, involving all staff in planning and decision making.	Moderate (Case report)
McCarthy, S. & Griffiths, L.J. (2021). The Journey to Evidence: Adopting Evidence-Based Programs in an Australian Child Welfare Organization. *Human Service Organizations: Management, Leadership & Governance, 45*(3), 273-280.	Case report No comparator	Child welfare system, Victoria, Australia Dates not specified	Social work	Organization	Not applicable	This case report explores the adoption and implementation of evidence-based practice within the child welfare system. Implementation was initiated by a new CEO. Readiness for change was assessed. A new role dedicated to implementation was established. Staff recruitment focused on hiring individuals with experience implementing evidence-based practices.	Qualitative: -Facilitators for implementation (interviews)	Facilitators for implementation: -Consistent communication and messaging -Adaptive management -Building a shared understanding of evidence -Development of a learning culture -Investment in staff skilled in evidence-based practice -Building relationships -Transformational leadership approach	Moderate (Case report)

Poehler, A.R., Parks, R.G., Tabak, R.G., Baker, E.A., & Brownson, R.C. (2020). Factors Facilitating or Hindering Use of Evidence-Based Diabetes Interventions Among Local Health Departments. *Journal of Public Health Management and Practice, 26*(5), 443-450.	Case report No comparator	Local health departments Missouri, United States Jan – April 2017	Public health	Organization	Not applicable	Twenty diabetes-related evidence-based programs and policies were implemented in local health departments. Staff capacity to implement these programs was developed through training and provision of resources.	Qualitative: -Facilitators, barriers and capacities to use evidence-based programs and policies (interviews with directors and diabetes/chronic disease practitioners)	Facilitators: -Knowledge of evidence-based programs and policies -Leadership support -Targeted messaging -Staff capacity building for EIDM evidence-based decision making -Access to professional development/training -Regular staff communications/ meetings -Meetings with internal and community decision makers -Obtaining and providing evidence relevant to the community Barriers: -Community perception/buy-in -Limited resources (funding and staff)	Moderate (Case report)
Connell, C.M., Lang, J.M., Zorba, B., Stevens, K. (2019). Enhancing Capacity for Trauma-informed Care in Child Welfare: Impact of a Statewide Systems Change Initiative. *American Journal of Community Psychology, 64*(3-4), 467-480.	Case report No comparator	Department of Children and Families Connecticut, United States 2011-2016	Social work	All staff at organization	Not applicable	Implementation of trauma-informed care, through workforce development, trauma screening procedures, policy changes, improved access to evidence-based trauma-focused treatments, and focused evaluation of changes.	Quantitative: - Staff perceptions of individual and organizational use of trauma-informed practices (Trauma System Readiness Tool) -Staff perception of contributions of each intervention component to success of program (survey)	Staff and organizational use of trauma-informed practices increased. Staff rated the availability of trauma-focused treatments in the community, integration of trauma-informed care into practice guides as the strongest contributors to organizational change.	High (Case report)

Wilkinson, S.A., O'Brien, M., McCray, S., & Harvey, D. (2019). Implementing a best-practice model of gestational diabetes mellitus care in dietetics: a qualitative study. BMC health services research, 19(1), 122.	Qualitative	Two regional sites Queensland, Australia Dates not specified	Primary healthcare	Team	Theoretical Domains Framework, Behaviour Change Wheel	A medical nutrition therapy model of care for gestational diabetes mellitus was implemented at local regional sites. The implementation strategy included developing local consensus processes, self-monitoring clinician behaviour, prompts and cues, adjusting and reorganising clinic environment	Qualitative: stakeholder experiences and learnings (semi-structured interviews)	The project itself was described as a "catalyst for positive change". Facilitators for change included: -Engagement with an external project team -Robust project methodology and guided process to overcome local barriers -Wide, ongoing site stakeholder engagement and local networking -Multi-disciplinary higher-level management support and engagement -Positive attitude -Building confidence and capacity of local implementers through regular contact	High (Qualitative)
McAllen, E.R., Stephens, K., Swanson-Biearman, B., Kerr, K., & Whiteman, K. (2018). Moving Shift Report to the Bedside: An Evidence-Based Quality Improvement Project. The Online Journal of Issues in Nursing, 23(2).	Single group pre-post study No comparator	532-bed, acute care, tertiary, teaching hospital Midwest United States Dates not specified	Primary healthcare	3 units within the hospital	Iowa Model of Evidence-Based Practice to Promote Quality Care and Kotter's Eight Stage Process for Major Change	A bedside report was implemented in standard nursing care. Staff were involved in implementation planning and provided education.	Quantitative: -Compliance (audits) -Number of patient falls (hospital incident reporting system) -Patient satisfaction (a combination of questions from the Press Ganey® and Hospital Consumer Assessment of Healthcare Providers and Systems surveys) -Nurse satisfaction (survey)	Compliance: -Combined compliance rate of 94% Falls: -Patient falls decreased by 24% in the four months after BSR implementation Patient Satisfaction: - Only the general surgery unit had a significant improvement in patient satisfaction based on the Ganey score (p=0.03)	Moderate (Quasi-experimental)

							-The Hospital Consumer Assessment of Healthcare Providers and Systems surveys showed improvement, but the changes were not statistically significant Nurse Satisfaction: -Significant reduction in the proportion of nurses who reported having enough time for report (80% to 59.6%; Mann Whitney U standardized test statistic=-2.668; p=0.008)	
Wilkinson, S.A., Hughes, E., Moir, J., Jobber, C. & Ackerie, A. (2018). Process of knowledge translation within routine clinical care: Implementing best practice in weight management. *Nutrition & Dietetics, 75*(4), 363-371.	Single group pre-post study No comparator	South-East Queensland Hospital Queensland, Australia 2016-2017	Primary healthcare	Organization	Theoretical Domains Framework (TDF), behaviour change wheel	A medical nutrition therapy model of care for gestational diabetes mellitus was adapted at local regional sites. The adaptation strategy included a needs assessment, barrier analysis and adaptation to local context.	Quantitative: service attendance metrics, anthropometry, diet quality, interventions delivered (hospital records)	Guideline adherence increased over time (4.4% - 50%, p<0.001); no significant differences observed between other outcomes.	High (Qualitative)
Williams, N.J., Ehrhart, M.G., Aarons, G.A., Marcus, S.C., & Beidas, R.S. (2018). Linking molar organizational climate and strategic implementation climate to clinicians'	Case report No comparator	Department of Behavioral Health and Intellectual DisAbility Services	Primary Healthcare	Network of clinics	Not applicable	Policy initiative for 4 psychotherapy protocols was initials. A dedicated role for implementation was established. Clinicians were trained in the new	Quantitative: impact of work environment on personal well-being and strategic implementation climate, perceptions of organizational for EIDM (survey)	In organizations with more supportive work environments, organizational support for EIDM predicted implementation. In organizations with less positive work environments, there	High (Case report)

Citation	Study design	Setting	Field	Level	Model	Intervention	Measures	Findings	Quality
use of evidence-based psychotherapy techniques: cross-sectional and lagged analyses from a 2-year observational study. *Implementation Science, 13*(1), 85.		Philadelphia, Pennsylvania, USA 2 years, dates not specified				psychotherapy protocols.		was no association between implementation and organizational support.	
Kane, H., Hinnant, L., Day, K., Council, M., Tzeng, J., Soler, R., Chambard, M., Roussel, A., & Heirendt, W. (2017). [Pathways to Program Success: A Qualitative Comparative Analysis (QCA) of Communities Putting Prevention to Work Case Study Programs]. *Journal of Public Health Management and Practice, 23*(2), 104-111.	Case report No comparator	Public Health Departments United States 2010-2012	Public health	Organization	Communities Putting Prevention to Work Case Study Evaluation Conceptual Model	The Communities Putting Prevention to Work (CPPW) Initiatives program was implemented to increase high-impact, evidence-based, population-wide environmental improvement strategies. The program implemented strategies through partnerships with local, community and state organizations.	Quantitative: Completion of work plan objectives, leadership support, collaboration, staff turnover (site visits and interviews)	Two highly consistent combinations of conditions were found to lead to successful completion of objectives 88.2% of the time: 1)Having public health improvement and topical experience and having a history of collaboration with partners 2)Not having public health improvement and topical experience and having leadership support	Moderate (Case report)
Fabbruzzo-Cota, C., Frecea, M., Kozell, K., Pere, K., Thompson, T., Tjan Thomas, J., & Wong, A. (2016). [A Clinical Nurse Specialist-Led Interprofessional Quality Improvement Project to Reduce Hospital-Acquired Pressure Ulcers]. *Clinical Nurse*	Single group pre-post study No comparator	Mount Sinai Hospital (MSH) Toronto, Ontario, Canada 2012-2014	Primary Healthcare	Organization	Donabedian healthcare quality model	An advanced practice nurse-led interprofessional initiative to reduce hospital-acquired pressure ulcers using evidence-based practice. Key components of the initiative included: -Clinical experience integrated with theory,	Quantitative: -Incidence of pressure ulcers (Quarterly pressure ulcer prevalence and incidence audits) -Uptake of change in clinical practice (audits)	Evidence of successful implementation and outcomes: -80% decrease in hospital acquired pressure ulcers since the implementation. -63% of at-risk patients had a turning click posted at the bedside -All units had the Positioning Decision Tree for Patients at Risk available	Moderate (Quasi-experimental)

Citation	Study type	Organization/Location	Healthcare level	Scope		Intervention	Outcome measures	Results	Quality
Specialist, 30(2), 110-116.						research and expert opinion -Synthesizing, critiquing and applying research - Involvement of interprofessional teams and senior leadership -Funding -Education		Evidence of staff engagement and commitment to initiatives: -28 nurses became skin and wound nurse champions -Provided feedback -Attended lectures -2 nurses joined Skin and Wound Care Steering Committee	
Nelson, G., Kiyang, L.N., Crumley, E.T., Chuck, A., Nguyen, T., Faris, P., … & Gramlich, L.M. (2016). Implementation of Enhanced Recovery After Surgery (ERAS) Across a Provincial Healthcare System: The ERAS Alberta Colorectal Surgery Experience. *World Journal of Surgery, 40*, 1092-1103.	Case report No comparator	Alberta Health Services Alberta, Canada Feb 2013 – Dec 2014	Primary healthcare	Within a single health care system for colorectal surgery	Not applicable	A guideline for enhanced recovery after colorectal surgery was implemented. Implementation included an multidisciplinary implementation team and ongoing audit and feedback.	Quantitative: -Length of stay, complications, and 30-day post-discharge 30-day post-discharge readmissions (Interactive Audit System) -Guideline compliance (interview audit)	Patient Outcomes: -Median length of stay reduced from 6 days to 4.5 days after 15-months of implementation (p<0.0001) -Significant reduction in the risk of readmission (adjusted RR=1.73; 95% CI=1.09, 2.73; p=0.018) -Significant reduction in the proportion of patients who developed at least one complication (difference in proportions = 11.7 %, 95 % CI 2.5, 21; p=0.0139) -Net cost savings between $2806 and $5898 USD/patient Compliance: -Median overall guideline compliance	High (Case report)

								increased from 39 % to 60 %	
Kegeles, S.M., Rebchook, G., Tebbetts, S., Arnold, E., & Trip Team. (2015). Facilitators and barriers to effective scale-up of an evidence-based multilevel HIV prevention intervention. *Implementation Science, 10*, 50.	Single group pre-post study

No comparator | Community-based organizations

United States

Two-year data collection period | Public health | Two to four individuals (coordinators, supervisors / directors, core group member volunteers) from 72 community-based organizations | Principles of Framework Analysis | The Mpowerment Project, a multi-level HIV prevention intervention, was implemented. Implementation included education for providers, resources for providers, e.g., manuals and videos. The community-based organizations implementing the program were involved in planning the implementation. | Qualitative: barriers and facilitators to implementation (semi-structured interviews, notes and commentaries from technical assistance providers) | Factors that influenced implementation success included: -Buy-in from service providers -Desire to change existing prevention approach -Planning for intervention before implementation -Evaluation of intervention -Organizational stability

Barriers included: -complexity of program -adaptability of program | Moderate (Quasi-experimental) |
| McConnell, T., O'Halloran, P., Donnelly, M., & Porter, S. (2015). Factors affecting the successful implementation and sustainability of the Liverpool Care Pathway for dying patients: a realist evaluation. *BMJ Support Palliative Care 5*(1), 70-77. | Case report

No comparator | One health and social care trust

Northern Ireland

2011-2012 | Palliative care | Two policymakers from the Department of Health, Social Services and Public Safety, and 22 participants from two service groups (Cancer and Specialist Services, and Acute Services) | Diffusion of innovations in health service organisations | The Liverpool Care Pathway was implemented to improve best practice in end-of-life care. Implementation involved a dedicated program facilitator, education for staff, regular evaluation and feedback. | Qualitative: facilitators and barriers for implementation (realist evaluation, semi-structured interviews) | Facilitators for implementation included: -Visibility and availability of program facilitator as a reminder to use pathway and support staff -Sharing positive feedback -Supportive senior management

Barriers to implementation included: -Lack of resources -Differing needs and expectations | Moderate (Case report) |

								-Ambivalence toward pathway approach from medical providers -Lack of ongoing senior management support and withdrawal of program facilitators -Social barriers (i.e., negative public perceptions in response to negative media)	
Schreiber, J., Marchetti, G.F., Racicot, B., & Kaminski, E. (2015). The use of a knowledge translation program to increase use of standardized outcome measures in an outpatient pediatric physical therapy clinic: administrative case report. *Physical Therapy, 95*(4), 613-629.	Case report No comparator	Pediatric outpatient facility with one primary and three satellite clinics United States Six-month duration	Primary healthcare	17 physical therapists	Knowledge-to-action framework	A multicomponent knowledge translation (KT) program was implemented to increase the use of standardized outcome measures and address inconsistency of frequency and duration of physical therapist services. The KT program included: barrier identification, use of a knowledge broker, workshops / practice sessions, online and hard-copy resources, and an ongoing program evaluation with communication of results.	Quantitative: knowledge assessment (baseline, 8-month follow-up), self-report surveys, chart review data on use of outcome measures	Knowledge assessment scores significantly increased (54.1 $\pm$ 13.5 to 81.8 $\pm$ 12.7, p<0.001). Self-reported *knowledge* of testing and measurement significantly improved, specifically with respect to test selection (p=0.003), administration (p=0.001), interpretation (p=0.001), and sharing of results (p=0.022). Self-reported *performance* of testing and measurement significantly improved, specifically with respect to test selection (p=0.001), administration (p<0.001), and interpretation (p=0.006).	High (Case report)

								Documented frequency of administration increased for all outcome measures at the beginning of the program and was sustained at 8-months.	
Stevans, J.M., Bise, C.G., McGee, J.C., Miller, D.L., Rockar, P., Jr, & Delitto, A. (2015). Evidence-based practice implementation: case report of the evolution of a quality improvement program in a multicenter physical therapy organization. *Physical therapy*, *95*(4), 588–599.	Case report No comparator	The University of Pittsburgh Medical Center, Centers for Rehab Services Pennsylvania, USA 2005	Primary Healthcare	Organization	Not applicable	The Low Back Pain Quality Improvement Initiative project was implemented. A local consensus process engaged providers in planning. Implementation champions supported the program. Providers were provided with education for the project. Implementation was evaluated regularly and feedback applied to adjust strategies.	Qualitative: Facilitators for implementation (interviews)	Facilitators for implementation included -Understanding the complex nature of the clinical setting from a systems perspective to identify implementation barriers. -Multicomponent intervention strategy -Vision, leadership, and commitment from all the members of the organization -Iterative measurement, reassessment, and refinement of strategies.	High (Case report)
Fearing, G., Barwick, M., & Kimber, M. (2014). Clinical transformation: Manager's perspectives on implementation of evidence-based practice. *Administration and Policy in Mental Health and Mental Health Services*	Case report No comparator	Kinark Child and Family Services Ontario, Canada 2006-2009	Social work	Organization	National Implementation Research Network implementation model	This report explores the process of an evidence-based practice implementation effort in all clinical services. Implementation was driven by multidisciplinary implementation teams.	Qualitative: -Managers perceptions (audio recording of management meetings)	8 overarching themes: 1)Staff workload (workload is too large to take on changes) 2)Operational shifts (increased staff recognition of how the organization was changing to accommodate new processes) 3)Clearer understanding of the	High (Case report)

Research, 41(4), 455-468.								organization's clinical supervision model 4)Development of sustainability plans -5)Practice Lead and Peer Coach 6)Evidence-based practice selection based on the benefits and limitations to implementing a particular practice 7)Culture Change (transitioning from implementation to practice as usual) 8)Limited organizational resources (e.g. staff resource) can inhibit the clinical transformation process	
Hurlburt, M., Aarons, G.A., Fettes, D., Willging, C., Gunderson, L., & Chaffin, M.J. (2014). Interagency Collaborative Team Model for Capacity Building to Scale-Up Evidence-Based Practice. *Children and Youth Services Review, 39*, 160-168.	Case report No comparator	Large children's service system California, United States 2008-2009	Social work	27 stakeholders involved in the early implementation process (county representatives, directors, supervisors, trainers, coaches, front line providers)	Exploration, Preparation, Implementation, and Sustainment (EPIS) implementation framework	The Interagency Collaborative Team (ICT) model was used to implement an evidence-based child neglect intervention (SafeCare). Implementation included initial education, stakeholder development and alignment, practice fit assessment, resource support solidification, fidelity focus, skill development, and progress monitoring / feedback. Additional,	Qualitative: personal-, organizational- and system-level factors affecting implementation (semi-structured interviews)	Facilitators for implementation included: -Initial commitment and collaboration among stakeholders -Cross-level leadership -Practice fit to the local context -Ongoing negotiation of rights, roles, responsibilities and interests among stakeholder organizations -Importance of early successes	High (Case report)

| | | | | | | | | the model focuses on distributed local leadership, systemic and cross-agency trust, and program adaptation. | | A challenge was insufficient communication and information exchange. | |
| Damschroder, L.J., & Lowery, J.C. (2013). Evaluation of a large-scale weight management program using the consolidated framework for implementation research (CFIR). *Implementation Science, 8*, 51. | Case report

No comparator | Five Veteran Affairs facilities

United States

July and October 2007 | Public health | Organization | Consolidated Framework for Implementation Research | This report explores the variation in the implementation of the MOVE! weight management program, s a multi-tiered set of tools and treatment options based on published guidelines for obesity management. | | Qualitative:
-Facilitators for implementation (semi-structured interviews with 24 key stakeholders) | Facilitators for implementation, according to the Consolidated Framework for Implementation Research:
1. Inner setting:
-Strong working relationships
-Tension for change (seeking and welcoming new programming and improvements)
-Priority of the change or program
-Goals and feedback (
-Learning climate
-Leadership engagement to support the program
2. Process:
-Planning a formal implementation plan
3. External change agents:
-Audit and feedback
4. Intervention characteristics:
-Relative advantage over alternatives
5. Outer setting:
-Staff who are aware of patient needs | High (Case report) |

References

Allen, P., Jacob, R.R., Lakshman, M., Best, L.A., Bass, K., & Brownson, R.C. (2018). Lessons Learned in Promoting Evidence-Based Public Health: Perspectives from Managers in State Public Health Departments. *Journal of Community Health*, *43*(5), 856–863.

Allen, P., O'Connor, J.C., Best, L.A., Lakshman, M., Jacob, R.R., & Brownson, R.C. (2018). Management Practices to Build Evidence-Based Decision-Making Capacity for Chronic Disease Prevention in Georgia: A Case Study. *Preventing Chronic Disease, 15*, E92.

Augustino, L.R., Braun, L., Heyne, R.E., Shinn, A., Lovett-Floom, L., King, H., … Hatzfeld, J. (2020). Implementing Evidence-Based Practice Facilitators: A Case Series. *Military medicine*, *185*(Suppl 2), 7–14.

Awan, S., Samokhvalov, A.V., Aleem, N., Hendershot, C.S., Irving, J.A., Kalvik, A., … Voore, P. (2015). Development and Implementation of an Ambulatory Integrated Care Pathway for Major Depressive Disorder and Alcohol Dependence. *Psychiatric services, 66*(12), 1265–1267.

Bennett, S., Whitehead, M., Eames, S., Fleming, J., Low, S., & Caldwell, E. (2016). Building capacity for knowledge translation in occupational therapy: learning through participatory action research. *BMC medical education*, *16*(1), 257.

Breckenridge-Sproat, S.T., Throop, M.D., Raju, D., Murphy, D.A., Loan, L.A., & Patrician, P.A. (2015). Building a Unit-Level Mentored Program to Sustain a Culture of Inquiry for Evidence-Based Practice. *Clinical Nurse Specialist, 29*(6), 329-337.

Brodowski, M.L., Counts, J.M., Gillam, R.J., Baker, L., Collins, V.S., Winkle, E., … Redmon, J. (2018). Translating Evidence-Based Policy to Practice: A Multilevel Partnership Using the Interactive Systems Framework. Families in Society. *The Journal of Contemporary Social Services, 94*(3), 141-149.

Brownson, R.C., Allen, P., Jacob, R.R., deRuyter, A., Lakshman, M., Reis, R.S., & Yan, Y. (2017). Controlling Chronic Diseases Through Evidence-Based Decision Making: A Group-Randomized Trial. *Preventing chronic disease*, *14*, E121.

Chan, R.J., Bowers, A., & Barton-Burke, M. (2017). Organizational Strategies for Building Capacity in Evidence-Based Oncology Nursing Practice: A Case Report of an Australian Tertiary Cancer Center. *The Nursing clinics of North America*, *52*(1), 149–158.

Clark, E.C., Dhaliwal, B., Ciliska, D., Neil-Sztramko, S.E., Steinberg, M., & Dobbins, M. (2022). A pragmatic evaluation of a public health knowledge broker mentoring education program: a convergent mixed methods study. *Implementation science communications*, *3*(1), 18.

Connell, C.M., Lang, J.M., Zorba, B., Stevens, K. (2019). Enhancing Capacity for Trauma-informed Care in Child Welfare: Impact of a Statewide Systems Change Initiative. *American Journal of Community Psychology, 64*(3-4), 467-480.

Damschroder, L.J., & Lowery, J.C. (2013). Evaluation of a large-scale weight management program using the consolidated framework for implementation research (CFIR). *Implementation Science, 8*, 51.

Darling, E.K., Easterbrook, R., Grenier, L.N., Malott, A., Murray-Davis, B., & Mattison, C.A. (2021). Lessons learned from the implementation of Canada's first alongside midwifery unit: A qualitative explanatory study. *Midwifery, 103*, 103146.

Dobbins, M., Greco, L., Yost, J., Traynor, R., Decorby-Watson, K., & Yousefi-Nooraie, R. (2019). A description of a tailored knowledge translation intervention delivered by knowledge brokers within public health departments in Canada. *Health Research Policy and Systems*, *17*(1), 63.

Elliott, M.J., Allu, S., Beaucage, M., McKenzie, S., Kappel, J., Harvey, R., … Manns, B. (2021). Defining the Scope of Knowledge Translation Within a National, Patient-Oriented Kidney Research Network. *Canadian journal of kidney health and disease*, 8.

Fabbruzzo-Cota, C., Frecea, M., Kozell, K., Pere, K., Thompson, T., Tjan Thomas, J., & Wong, A. (2016). A Clinical Nurse Specialist-Led Interprofessional Quality Improvement Project to Reduce Hospital-Acquired Pressure Ulcers. *Clinical Nurse Specialist, 30*(2), 110-116.

Fearing, G., Barwick, M., & Kimber, M. (2014). Clinical transformation: Manager's perspectives on implementation of evidence-based practice. *Administration and Policy in Mental Health and Mental Health Services Research, 41*(4), 455-468.

Fernández, M.E., Melvin, C.L., Leeman, J., Ribisl, K.M., Allen, J.D., Kegler, M.C., … Hebert, J.R. (2014). The cancer prevention and control research network: An interactive systems approach to advancing cancer control implementation research and practice. *Cancer Epidemiology, Biomarkers & Prevention*, *23*(11), 2512–2521.

Flaherty, H.B., Bornheimer, L.A., Hamovitch, E., Garay, E., Mini de Zitella, M.L., Acri, M.C., & McKay, M. (2021). Examining Organizational Factors Supporting the Adoption and Use of Evidence-Based Interventions. *Community Mental Health Journal, 57*(6), 1187-1194.

Gallagher-Ford, L. (2014). Implementing and sustaining EBP in real world healthcare settings: transformational evidence-based leadership: redesigning traditional roles to promote and sustain a culture of EBP. *Worldviews on Evidence-Based Nursing 11*(2), 140-142.

Gifford, W., Lefebre, N., & Davies, B. (2014). An organizational intervention to influence evidence-informed decision making in home health nursing. *The Journal of Nurse Administration, 44*(7/8), 395-402.

Haynes, A., Rowbotham, S., Grunseit, A., Bohn-Goldbaum, E., Slaytor, E., Wilson, A., … Wutzke, S. (2020). Knowledge mobilisation in practice: an evaluation of the Australian Prevention Partnership Centre. *Health research policy and systems*, *18*(1), 13.

Hitch, D., Lhuede, K., Vernon, L., Pepin, G., & Stagnitti, K. (2019). Longitudinal evaluation of a knowledge translation role in occupational therapy. *BMC health services research*, *19*(1), 154.

Hooge, N., Allen, D.H., McKenzie, R., & Pandian, V. (2022). Engaging advanced practice nurses in evidence-based practice: An e-mentoring program. *Worldviews on evidence-based nursing, 19*(3), 235-244.

Humphries, S., Hampe, T., Larsen, D., & Bowen, S. (2013). Building organizational capacity for evidence use: the experience of two Canadian healthcare organizations. *Healthcare management forum*, *26*(1), 26–32.

Hurlburt, M., Aarons, G.A., Fettes, D., Willging, C., Gunderson, L., & Chaffin, M.J. (2014). Interagency Collaborative Team Model for Capacity Building to Scale-Up Evidence-Based Practice. *Children and Youth Services Review, 39*, 160-168.

Irwin, M.M., Bergman, R.M., & Richards, R. (2013). The experience of implementing evidence-based practice change: a qualitative analysis. *Clinical Journal of Oncology Nursing, 17*(5), 544-549.

Kane, H., Hinnant, L., Day, K., Council, M., Tzeng, J., Soler, R., Chambard, M., Roussel, A., & Heirendt, W. (2017). Pathways to Program Success: A Qualitative Comparative Analysis (QCA) of Communities Putting Prevention to Work Case Study Programs. *Journal of Public Health Management and Practice*, *23*(2), 104-111.

Kaplan, L., Zeller, E., Damitio, D., Culbert, S., & Bayley, K.B. (2014). Improving the culture of evidence-based practice at a Magnet(R) hospital. *Journal for Nurses in Professional Development, 30*(6), 274-280.

Kegeles, S.M., Rebchook, G., Tebbetts, S., Arnold, E., & Trip Team. (2015). Facilitators and barriers to effective scale-up of an evidence-based multilevel HIV prevention intervention. *Implementation Science, 10*, 50.

Kimber, M., Barwick, M., & Fearing, G. (2012). Becoming an evidence-based service provider: staff perceptions and experiences of organizational change. *The journal of behavioral health services & research*, *39*(3), 314–332.

Mackay, H.J., Campbell, K.L., van der Meij, B.S., & Wilkinson, S.A. (2019). Establishing an evidenced-based dietetic model of care in haemodialysis using implementation science. Nutrition & Dietetics, *76*(2), 150-157.

Martin-Fernandez, J., Aromatario, O., Prigent, O., Porcherie, M., Ridde, V., & Cambon, L. (2021). Evaluation of a knowledge translation strategy to improve policymaking and practices in health promotion and disease prevention setting in French regions: TC-REG, a realist study. *BMJ open*, *11*(9), e045936.

McAllen, E.R., Stephens, K., Swanson-Biearman, B., Kerr, K., & Whiteman, K. (2018). Moving Shift Report to the Bedside: An Evidence-Based Quality Improvement Project. *The Online Journal of Issues in Nursing*, *23*(2).

McCarthy, S. & Griffiths, L.J. (2021). The Journey to Evidence: Adopting Evidence-Based Programs in an Australian Child Welfare Organization. *Human Service Organizations: Management, Leadership & Governance*, *45*(3), 273-280.

McConnell, T., O'Halloran, P., Donnelly, M., & Porter, S. (2015). Factors affecting the successful implementation and sustainability of the Liverpool Care Pathway for dying patients: a realist evaluation. *BMJ Support Palliative Care 5*(1), 70-77.

Melnyk, B.M., Fineout-Overholt, E., Giggleman, M., & Choy, K. (2017). A Test of the ARCC© Model Improves Implementation of Evidence-Based Practice, Healthcare Culture, and Patient Outcomes. *Worldviews on evidence-based nursing, 14*(1), 5–9.

Michie, S., van Stralen, M.M. & West, R. (2011). The behaviour change wheel: A new method for characterising and designing behaviour change interventions. *Implementation Science, 6*, 42.

Miro, A., Perrotta, K., Evans, H., Kishchuk, N. A., Gram, C., Stanwick, R. S., & Swinkels, H. M. (2014). Building the capacity of health authorities to influence land use and transportation planning: Lessons learned from the Healthy Canada by Design CLASP Project in British Columbia. *Canadian journal of public health*, *106*(1 Suppl 1), eS40–eS52.

Neil-Sztramko, S.E., Belita, E., Traynor, R.L., Clark, E., Hagerman, L., & Dobbins, M. (2021). Methods to support evidence-informed decision-making in the midst of COVID-19: creation and evolution of a rapid review service from the National Collaborating Centre for Methods and Tools. *BMC Medical Research Methodology 21*(231).

Nelson, G., Kiyang, L.N., Crumley, E.T., Chuck, A., Nguyen, T., Faris, P., … & Gramlich, L.M. (2016). Implementation of Enhanced Recovery After Surgery (ERAS) Across a Provincial Healthcare System: The ERAS Alberta Colorectal Surgery Experience. *World Journal of Surgery, 40*, 1092-1103.

Parke, B., Stevenson, L., & Rowe, M. (2015). Scholar-in-Residence: An Organizational Capacity-Building Model to Move Evidence to Action. *Canadian Journal of Nursing Leadership, 28*(2), 10-22.

Peirson, L., Ciliska, D., Dobbins, M., & Mowat, D. (2012). Building capacity for evidence informed decision making in public health: a case study of organizational change. *BMC public health, 12*, 137.

Plath, D. (2013). Organizational processes supporting evidence-based practice. *Administration in social work, 37*(2), 171-188.

Poehler, A.R., Parks, R.G., Tabak, R.G., Baker, E.A., & Brownson, R.C. (2020). Factors Facilitating or Hindering Use of Evidence-Based Diabetes Interventions Among Local Health Departments. *Journal of Public Health Management and Practice, 26*(5), 443-450.

Pullyblank, K., Brunner, W., Wyckoff, L., Krupa, N., Scribani, M., & Strogatz, D. (2022). Implementation of Evidence-Based Disease Self-Management Programs in a Rural Region: Leveraging and Linking Community and Health Care System Assets. *Health Education & Behavior.* Epub ahead of print.

Roberts, M., Reagan, D. R., & Behringer, B. (2020). A Public Health Performance Excellence Improvement Strategy: Diffusion and Adoption of the Baldrige Framework Within Tennessee Department of Health. *Journal of public health management and practice, 26*(1), 39–45.

Rodriguez-Quintana, N., Lewis, C.C., Scott, K., Marriot, B., Wahlen, S., & Hindman, R. (2022). Implementation of the Wolverine Mental Health Program, Part 2: Implementation Phase. *Cognitive and Behavioral Practice 29*(1), 227-243.

Schreiber, J., Marchetti, G.F., Racicot, B., & Kaminski, E. (2015). The use of a knowledge translation program to increase use of standardized outcome measures in an outpatient pediatric physical therapy clinic: administrative case report. *Physical Therapy, 95*(4), 613-629.

Schünemann, H., Brożek, J., Guyatt, G., & Oxman, A. (2013). *Handbook for grading the quality of evidence and the strength of recommendations using the GRADE approach*.

Scott, K., Lewis, C.C., Rodriguez-Quintana, N., Marriott, B.R., & Hindman, R.K. (2022). Implementation of the Wolverine Mental Health Program, Part 1: Adoption Phase. *Cognitive and Behavioral Practice, 29*(1), 214-226.

Stevans, J.M., Bise, C.G., McGee, J.C., Miller, D.L., Rockar, P., Jr, & Delitto, A. (2015). Evidence-based practice implementation: case report of the evolution of a quality improvement program in a multicenter physical therapy organization. *Physical therapy, 95*(4), 588–599.

Traynor, R., DeCorby, K., & Dobbins, M. (2014). Knowledge brokering in public health: a tale of two studies. *Public health, 128*(6), 533-544.

van der Zwet, R.J.M., Beneken genaamd Kolmer, D.M., Schalk, R., & Van Regenmortel, T. (2020). Implementing Evidence-Based Practice in a Dutch Social Work Organisation: A Shared Responsibility. *The British Journal of Social Work, 50*(7), 2212–2232.

Waterman, H., Boaden, R., Burey, L., Howells, B., Harvey, G., Humphreys, J., … Spence, M. (2015). Facilitating large-scale implementation of evidence based health care: insider accounts from a co-operative inquiry. *BMC health services research, 15*, 60.

Ward, M., & Mowat, D. (2012). Creating an organizational culture for evidence-informed decision making. *Healthcare management forum, 25*(3), 146-150.

Wilkinson, S.A., Hughes, E., Moir, J., Jobber, C. & Ackerie, A. (2018). Process of knowledge translation within routine clinical care: Implementing best practice in weight management. *Nutrition & Dietetics, 75*(4), 363-371.

Wilkinson, S.A., O'Brien, M., McCray, S., & Harvey, D. (2019). Implementing a best-practice model of gestational diabetes mellitus care in dietetics: a qualitative study. *BMC health services research*, *19*(1), 122.

Williams, C., van der Meij, B.S., Nisbet, J., Mcgill, J., & Wilkinson, S.A. (2019). Nutrition process improvements for adult inpatients with inborn errors of metabolism using the i-PARIHS framework. *Nutrition & Dietetics*, *76*(2), 141-149.

Williams, N.J., Ehrhart, M.G., Aarons, G.A., Marcus, S.C., & Beidas, R.S. (2018). Linking molar organizational climate and strategic implementation climate to clinicians' use of evidence-based psychotherapy techniques: cross-sectional and lagged analyses from a 2-year observational study. *Implementation Science, 13*(1), 85.

Williams, N.J., Glisson, C., Hemmelgarn, A., & Green, P. (2017). Mechanisms of Change in the ARC Organizational Strategy: Increasing Mental Health Clinicians' EBP Adoption Through Improved Organizational Culture and Capacity. *Administration and Policy in Mental Health and Mental Health Services, 44*(2), 269-283.

Williams, N.J., Wolk, C. B., Becker-Haimes, E. M., & Beidas, R.S. (2020). Testing a theory of strategic implementation leadership, implementation climate, and clinicians' use of evidence-based practice: a 5-year panel analysis. *Implementation science*, *15*(1), 10.