International Platform of Registered Systematic Review and Meta-analysis Protocols

INPLASY

Strategies to engage healthcare providers as research partners in the co-production of knowledge for practice or organizational change: Protocol for an umbrella review

de Raad, M; Bush, PL; Salimi, D; Deng, J; Ghaleb-Deguire, M; Lussier, S; Poncet, F; Barnett, TA.

INPLASY202590046
doi: 10.37766/inplasy2025.9.0046
Received: 12 September 2025
Published: 13 September 2025

Corresponding author:
Paula Louise Bush

paula.bush@mcgill.ca

Author Affiliation:
Department of Family Medicine, Faculty of Medicine and Health Sciences, McGill University.

ADMINISTRATIVE INFORMATION

Support - This review is supported by the Unité de soutien SSA Québec which is funded by the Canadian Institutes of Health Research. Dr. Poncet was funded by the 1) Fonds de Recherche du Quebec-Santé [Junior 1 career grant FRQS - Unité de soutien SSA Québec / “Jeunes leaders d'un système de santé apprenant”, (#322317)] and 2) the Habilitas Foundation.

Review Stage at time of this submission - Formal screening of search results against eligibility criteria.

Conflicts of interest - None declared.

INPLASY registration number: INPLASY202590046

Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 13 September 2025 and was last updated on 13 September 2025.

INTRODUCTION

Review question / Objective What strategies, processes, or tools have been used to engage healthcare providers as co-decision makers with academic researchers in research or quality improvement projects targeting practice or organizational change? The ultimate objective is to inform health researchers, professionals, managers and decision makers how to work with professionals to conduct reserch and QI that responds their needs.

Rationale Engaging healthcare providers as co-decision makers with academic researchers in research, implementation and quality improvement initiatives is widely recommended to enhance the relevance, uptake, and sustainability of change efforts,1-4 and is a key feature of learning health systems.5 However, this form of engagement is often difficult to achieve given numerous barriers at individual, organizational, and systemic levels.6 Researcher-research user partnerships have explored been explored broadly, synthesizing high-level principles, strategies and outcomes drawn from systematic reviews of participatory research across sectors. 7, 8 Organizational Participatory Research is an approach involving academic researchers and healthcare organizations partnering to identify practice problems, co-design and conduct studies, and apply findings to support change. Reviews focused on this approach have sought to describe the processes and outcomes, the extent and timing of engagement of healthcare professionals, and its added value.9-14 More recently, the field has seen an increase in literature on embedded research, co-production, and practice-based engagement strategies relevant to healthcare providers.15-19 While this body of work has clarified the broad principles underlying research partnerships and identified general processes, facilitators and outcomes of engagement across settings and interest holders, reviews consistently report that descriptions of engagement processes were limited.9-14 Addressing this gap is pressing in primary care and community-facing health services, where many healthcare users obtain care, and where providers often face unique engagement challenges. While efforts to build research capacity in primary care are growing,20, 21 guidance on how to engage these healthcare providers in co-developing practice change initiatives is lacking. Better understanding these engagement processes is crucial, as primary care is the first point of contact for most patients; more effective partnerships in this setting could accelerate the translation of evidence into practice and lead to more timely improvements in healthcare services.

An umbrella review (following guidance from Aromataris et al.22) is warranted to fully describe strategies, processes, and tools that have been used to engage healthcare providers as co-decision-makers, with academic researchers, in the design and conduct of research or quality improvement initiatives in primary care contexts.

Condition being studied Not applicable.

METHODS

Search strategy The search strategy was developed by a specialized health sciences librarian in collaboration with the corresponding author. It was informed by previous reviews on participatory research and refined iteratively, using selected reviews identified through preliminary searches to test sensitivity and specificity and adjust keywords.

The search strategy combined three concepts using Boolean operators:

- (1) Research engagement and involvement (e.g., participatory research, co-production, integrated knowledge translation, research user partnerships, stakeholder engagement, implementation science, learning health systems, quality improvement);
- OR (2) Priority setting and needs identification (e.g., setting priorities, identifying needs, capacity-building);
- Both of the above were combined using AND with the third concept: (3) Clinical healthcare providers across care settings, including those in primary care (e.g., physicians, nurses, midwives, social workers, pharmacists, and healthcare decision-makers).

Although primary care was not isolated as a standalone concept, the search strategy included terms such as “family medicine group,” “general practitioner,” and “primary care provider” to ensure that reviews involving primary care clinicians were captured, even when embedded in broader clinical contexts.

Participant or population This umbrella review focuses on healthcare and social service providers and decision-makers working in or closely connected to primary care settings. This includes family physicians, nurses, midwives, allied health professionals (e.g., occupational therapists, palliative care providers), pharmacists, and social workers. Healthcare or social service managers and administrators are also included when they are directly involved in practice change efforts relevant to service delivery.

For the purposes of this review, primary care is defined broadly as first-contact, longitudinal, person-centered care delivered in community or outpatient settings. This includes care provided in team-based care setting, community health centers, integrated care teams, and home care services, where care professionals address a wide range of health and social service needs across the lifespan.

The search strategy was designed to broadly capture clinician engagement across clinical contexts. Therefore, relevance to primary care will be assessed during title/abstract and full-text screening. Reviews that include hospital or specialist settings will be included only if the engagement strategies described are clearly transferable to primary care or community-based contexts. Reviews focused exclusively on acute care or highly specialized inpatient settings will be excluded.

Intervention The interventions of interest are the strategies, processes, and tools used to engage healthcare providers as active partners or co-decision makers, with academic researchers, in the design, conduct, and interpretation of research or quality improvement projects aimed at practice or organizational change.

These may include:

- Participatory research approaches (e.g., organizational participatory research, community-based participatory research)
- Quality improvement collaboratives that involve clinicians in planning, governance, or shared decision-making
- Implementation facilitation models or co-production frameworks

- Embedded research partnerships or integrated knowledge translation processes that engage clinicians beyond end-user roles

We will exclude reviews that describe interventions focused solely on changing provider behaviour or practice (e.g., through continuing education, guideline dissemination, or audit-and-feedback) without engaging them in shaping, developing, or making decisions about the intervention or evidence use. However, reviews will be included if they describe strategies that support healthcare provider involvement in the interpretation or application of evidence, such as capacity-building or co-design activities that empower providers to make decisions about how evidence is used in practice. The key distinction is whether providers are treated as co-governors of change, rather than passive implementers of externally developed interventions.

Comparator Not applicable.

Study designs to be included We will include completed qualitative, quantitative or mixed studies reviews with clearly reported methods (search strategy, eligibility criteria, selection process, data extraction, and synthesis). We will exclude bibliometric analyses, citation mappings, or reviews focused solely on describing publication trends.

Eligibility criteria In addition to the criteria outlined in the PICO framework, the following inclusion and exclusion criteria apply:

Inclusion

- Publication characteristics: Only peer-reviewed review articles published in 2015 or later, with full-text available in English or French, are eligible. This cut-off was selected for two reasons: (a) early reviews consistently highlighted a lack of detailed descriptions of engagement processes,9-14 and (b) the literature on participatory, embedded, and co-production approaches in health services research has expanded over the past decade.

Exclusion

- Setting: Reviews focused solely on non-care delivery settings (e.g., educational environments) or on secondary or tertiary care settings (e.g., ORs, ICUs), are excluded.
- Mixed populations: Reviews including broader populations (e.g., both patients and providers) are excluded if findings specific to healthcare providers or decision-makers are not reported separately or cannot be clearly interpreted.

Information sources Five bibliographic databases were searched in March 2025: MEDLINE (via Ovid), Embase (via Ovid), CINAHL (via EBSCOhost), ABI/INFORM Global (via ProQuest), and HealthSTAR (via Ovid). In addition, we will screen the reference lists of selected eligible reviews.

Main outcome(s) The outcomes of interest are the detailed descriptions of the strategies, processes, and tools used to engage healthcare providers in research or quality improvement initiatives aimed at practice or organizational change. These outcomes will be studied in terms of the

- Type of healthcare provider involved (e.g., family physicians, nurses, allied health professionals, decision-makers)
- Stage of the project in which engagement occurred (e.g., problem identification, study design, recruitment, data collection, data analysis, dissemination)
- Nature or level of engagement (e.g., consultation, shared decision-making, facilitation of project activities, leadership of project activities).

Additional outcome(s) All identified records will be imported into Covidence, where duplicate entries will be automatically removed. The review team will pilot and refine the eligibility criteria before screening begins. Title and abstract screening will be conducted independently by two reviewers, with discrepancies flagged and resolved through team discussion. Covidence's conflict resolution and notes functions will support transparent decision-making, shared understanding of criteria, and an audit trail. Inter-rater agreement will be monitored to assess consistency, with regular team discussions to clarify interpretation and ensure uniform understanding. Full-text screening will also be conducted independently by two reviewers, with disagreements resolved through discussion or, if needed, by consulting additional team members to reach consensus.

Data extraction will use a standardized Excel form developed, piloted, and refined by the team, following umbrella review guidance.22, 24

We will extract:

1. Review characteristics

- Bibliographic data (authors, year, journal)
- Objectives of the review
- Design of review (e.g., scoping, systematic, realist)
- Method of synthesis (e.g., thematic synthesis, critical interpretive synthesis)
- Number of primary studies included, and the design and country of origin of each
- Instrument used to appraise primary studies (if reported), and summary of quality assessments
- Number of databases searched and date range of the search

- Publications date range of the studies included in the review

2. Participants and setting

- The engaged interest holder(s) on which the review focuses and their research and practice experience (e.g., clinicians, decision-makers, academic researchers)
- The clinical settings and contexts of engagement as described in the review (e.g., primary care, hospital, community-based)

3. Engagement-related results

- Strategies, processes, or tools used to support engagement
- Stage(s) of the project at which engagement strategies were used (e.g., priority setting, study design, recruitment, analysis, dissemination)
- Level or nature of engagement (e.g., consultation, shared decision-making, co-leadership)
- Contextual factors influencing engagement (e.g., organizational conditions, team structures, relational dynamics)
- Reported effects of engagement, whether qualitative (e.g., perceived value, satisfaction, trust) or quantitative (e.g., engagement metrics, implementation outcomes)
- Definitions, conceptual frameworks, or typologies used to describe the engagement process and its intended purposes or goals.

4. Additional notes

- Authors conclusions or interpretations, or review limitations relevant to the objective of our umbrella review.

Quality assessment / Risk of bias analysis The methodological quality of included reviews will be appraised using various tools depending on the review designs. For example:

– AMSTAR 2 will be used for systematic reviews of quantitative healthcare intervention studies25
– Mixed Methods Systematic Reviews Appraisal Tool (MMSR) will be used for mixed methods systematic reviews26
– Quality standards for realist synthesis will be used for realist syntheses27
– Quality standards for meta-narrative synthesis will be used for meta-narrative syntheses27

Since this is an umbrella review, we will assess overlap in primary studies across the included reviews, using the GROOVE tool (Graphical Representation of Overlap for OVErviews).28 This will help identify and account for any potential overrepresentation of evidence from highly overlapping reviews.

Strategy of data synthesis This review will use a textual narrative synthesis approach as described by Lucas, to group and summarize strategies for engaging health care providers in research and quality improvement initiatives.29 The review team will develop an inial code book, informed by relevant literature and will refine it inductively as analysis proceeds. 7, 9, 10, 15 Should the data allow for it, the team will analyse engagement strategies according to stage of the project, the type of interest nholder engaged, and level or nature of engagement.

We will use the CERQual approach to assess confidence in key findings from our synthesis.30 This will involve evaluating methodological limitations, coherence, adequacy, and relevance of the evidence contributing to each analytical theme.

Subgroup analysis Where possible, the review team will explore variation across clinical contexts and types of interest holders.

Sensitivity analysis Not applicable.

Language restriction Full text must be available in English or French.

Country(ies) involved Canada.

Keywords Participatory research, clinician engagement, research–practice partnerships, health services implementation, priority setting in healthcare, organizational change, co-production, integrated knowledge translation (IKT).

Dissemination plans Results of this umbrella review will be used to develop a tool to guide researchers, healthcare professionals and managers to improve provider engagement in research and quality improvement. This tool will be freely accessible on the website of the Unité de soutien SSA Québec (https://ssaquebec.ca/). This umbrella review will also be disseminated via a peer reviewed publication.

Contributions of each author

Author 1 - Manon de Raad - Author 1 contributed to the development of the selection criteria, is involved in title/abstract and full-text screening and drafted this protocol. She will participate in data extraction and synthesis, and will draft the initial version of the manuscript.
Email: manon.deraad@mail.mcgill.ca
Author 2 - Paula Louise Bush - Author 2 is the principal investigator. She conceptualized the work, contributed to the development of the selection criteria, is involved in title/abstract and full-text screening, reviewed this protocol, will participate in data extraction & synthesis, will participate in drafting the initial version of the manuscript, and review the final version.
Email: paula.bush@mcgill.ca

Author 3 - Dorsa Salimi - Author 3 contributed to the development of the selection criteria, is involved in title/abstract and full-text screening, will participate in data extraction and synthesis, and review the manuscript.
Email: dorsa.salimi@mail.mcgill.ca
Author 4 - Jiahao Deng - Author 4 contributed to the development of the selection criteria, is involved in title/abstract and full-text screening, will participate in data extraction and synthesis, and review the manuscript.
Email: jiahao.deng@mcgill.ca
Author 5 - Michel Ghaleb-Deguire - Author 5 contributed to the development of the selection criteria, is involved in title/abstract and full-text screening, will participate in data extraction and synthesis, and review the manuscript.
Email: michel.ghaleb.1@umontreal.ca
Author 6 - Sonia Lussier - Author 6 contributed to the conceptualization of the work and will review the manuscript.
Email: sonia.lussier@mcgill.ca
Author 7 - Frédérique Poncet - Author 7 contributed to the conceptualization of the work and will review the manuscript.
Email: frederique.poncet.ccomtl@ssss.gouv.qc.ca
Author 8 - Tracie Ann Barnett - Author 8 contributed to the conceptualization of the work and will review the manuscript.
Email: tracie.barnett@mcgill.ca

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