McMaster University | Health Forum

Living Evidence Profile #9

Putting evidence at the centre of everyday life: Helping health and social systems learn and improve rapidly and contribute to a society-wide transformation

8 December 2025

[MHF product code: LEP 9e]

Context

- The Global Commission on Evidence to Address Societal Challenges (the Global Evidence Commission), which began in 2022 as a grassroots effort to improve the use of research evidence, prioritized action to put evidence at the centre of everyday life.
- To further understand the strategies that can be used to put evidence at the centre of citizens' everyday lives, the Global Evidence Commission consulted with subject-matter experts and citizen partners, including the Citizen Leadership Group and a series of citizen panels, and developed a list of five potentially promising strategies that could help to achieve this aim.
- This living evidence profile (LEP) addresses **strategy 5**, which focuses on helping health and social systems learn and improve rapidly and contribute to a society-wide transformation, and considers how continuous learning and improvement cycles can be embedded into advisory and decision-making processes in health and social systems.
- This LEP is the fifth in a series of five that collectively aim to examine what is known from the best-available evidence documents about the full list of strategies developed by the Global Evidence Commission for putting evidence at the centre of everyday life, including:
  1. make evidence-based choices the default or easy option (LEP 9a)
  2. make evidence available to citizens when they are making choices (LEP 9b)
  3. help citizens judge what others are claiming or find (and receive) reliable information on a topic (LEP 9c)
  4. engage citizens in asking questions and using new or existing evidence to answer them (LEP 9d)
  5. help health and social systems learn and improve rapidly and contribute to a society-wide transformation (this synthesis, LEP 9e).

Box 1: Evidence and other types of information

+ Global evidence drawn upon

Evidence syntheses and single studies selected based on relevance, quality and recency of search

+ Additional forms of evidence used

Qualitative insights

*** Additional notable features**

Prepared with input from two citizen partners

Question

What is the best-available evidence related to helping health and social systems learn and improve rapidly in putting evidence at the centre of everyday life'?

High-level summary of key findings

- We identified 13 evidence documents (10 evidence syntheses, one single study and two protocols) that examined strategies for embedding continuous learning in health and social systems, strengthening system infrastructure, and addressing challenges in large-scale transformation.
- While we hoped to identify insights from the evidence about strategies for continuous learning and improvement and for large-scale system transformation that are meant to put evidence at the centre of everyday life for citizens, the evidence we identified was focused more generally on the learning and improvement systems themselves, with insights about how citizens could be engaged in these processes.
- Most of the evidence described processes for implementing learning health systems (LHS), featuring structured healthcare feedback processes for data collection and sharing, goal setting, feedback delivery, recipient interaction, and quality improvement cycles, which have been shown to be impactful.
- The use of evidence to inform healthcare providers' clinical practice and their understanding of health information as part of LHSs was mentioned in a few evidence documents.
- The importance of strong multi-level leadership, historical context, well-integrated data systems, consideration of the operational and social realities of implementation, and continuous progress monitoring was emphasized to further enhance large-scale, system-wide transformation.
- We did not identify any specific findings on the use of evidence to inform how system infrastructure can be strengthened or how challenges in large-scale transformation can be addressed.

Box 2: Approach and supporting materials

For this living evidence profile we engaged citizen partners, who read earlier drafts to ensure the summary of the evidence was presented with clear and understandable language from their perspective.

We identified evidence addressing the question by searching Health Systems Evidence, Social Systems Evidence, PubMed, Web of Science, ProQuest and EBSCOhost search. All searches were conducted in April 2024. The search strategies used are available upon request as a supplementary document. In contrast to evidence-synthesis methods that provide an in-depth understanding of the evidence, this profile focuses on providing an overview and key insights from relevant documents.

We searched for full evidence syntheses (or synthesis-derived products such as overviews of evidence syntheses) and protocols for evidence syntheses. We appraised the methodological quality of evidence syntheses that were deemed to be highly relevant using AMSTAR. AMSTAR rates overall quality on a scale of 0 to 11, where 11/11 represents a review of the highest quality. The AMSTAR tool was developed to assess reviews focused on clinical interventions, so not all criteria apply to evidence syntheses pertaining to delivery, financial or governance arrangements within health systems or to broader social systems.

We anticipate completing a jurisdictional scan that will be included in the next update to this LEP.

A separate appendix document includes:
1) methodological details (Appendix 1)
2) details about each identified evidence synthesis (Appendix 2)
3) details about each identified single study (Appendix 3)
4) syntheses that were excluded in the final stages of review (Appendix 4)
5) references.

Framework to organize what we looked for

The strategy of helping health and social systems to learn and improve rapidly did not have any sub-strategies. It examined strategies for embedding continuous learning in health and social systems, strengthening system infrastructure, and addressing challenges in large-scale transformation to put evidence at the centre of everyday life.

We organize our findings with a specific focus on what we know about the:

- benefits of the approach
- challenges/harms when using the approach
- costs and/or cost-effectiveness of the approach
- adaptations that must be made when using the approach
- views about and experiences with the approach.

What we found

For this LEP, we identified a total of 13 evidence documents (10 evidence syntheses, one single study and two protocols) that examined strategies to help health and social systems learn and improve rapidly and contribute to a society-wide transformation. Below, Table 1 provides a high-level summary of our key findings, and the sections that follow provide a detailed description of our findings.

Table 1: What we know from identified evidence documents about helping health and social systems learn and improve rapidly

	What does the evidence say about **strategy #5: Help health and social systems learn and improve rapidly**? And, in particular, what do we know about the: • **benefits** of the approach? • **challenges/harms** when using the approach? • **costs and/or cost-effectiveness** of the approach? • **adaptations** that must be made when using the approach? • **views about and experiences** with the approach?
Help health and social systems learn and improve rapidly and contribute to a society-wide transformation	• The use of evidence to support healthcare providers in practice, system-level integration and the standardization of data are key enablers for establishing a learning health system [**benefits**] • Challenges with learning health systems have reportedly persisted in standardized outcome reporting, meaningful patient engagement, financial sustainability, leadership support, research integration into routine care, and regulatory barriers [**challenges/harms**] • Empirical research is still needed on efforts to implement large-scale LHSs across diverse healthcare settings [**adaptations**] • Consideration should be given to the operational and social realities of implementing health systems, such as organizational constraints and social dynamics [**adaptations**] • No insights about costs and/or cost-effectiveness, or views about and experiences with the approach

Key findings from included evidence documents

A total of 13 evidence documents (10 evidence syntheses, one single study and two protocols) were identified that examined strategies for embedding continuous learning in health and social systems, strengthening system infrastructure, and addressing challenges in large-scale transformation. While we hoped to identify insights from the evidence about strategies for continuous learning and improvement and for large-scale system transformation that are meant to put evidence at the centre of everyday life for citizens, the majority of what we identified with respect to such strategies was framed more generally on the learning and improvement systems themselves, with insights about how citizens could be engaged in these processes. When possible, we highlight any findings about putting evidence at the centre of everyday life in these learning and improvement systems.

Embedding continuous learning

Most of the evidence identified described processes for embedding learning health systems (LHSs) in primary care, which feature structured-feedback processes that integrate patients, providers and researchers into stages for data collection, sharing and analysis, goal setting, feedback delivery, recipient interaction and quality improvement cycles.(1; 2) The identified evidence documents suggested that the use of evidence to support healthcare providers in understanding health information as well as system-level integration and standardization of data are key enablers required for establishing an LHS, alongside several key individual competencies such as:

- patients' ability to share information
- health workforce expertise in evidence-based practice
- leadership and teamwork.(3)

In terms of outcomes, one evidence synthesis found that academic health institutions adopting an LHS framework reported improved patient outcomes when they ensured the approach was coordinated, had capacity for evaluation, as well as for applying insights as they emerged.(4)

Descriptions of embedding an LHS approach in the included documents were primarily drawn from experiences in large primary-care systems, with knowledge gaps and challenges reported in areas such as:

- meaningful patient engagement
- integrating research into routine care
- standardized outcome reporting
- leadership support
- financial sustainability
- regulatory barriers.(2; 5; 6)

Given that most studies on LHSs have been conducted in high-income countries and focused on small-scale initiatives, more research is still needed on efforts to implement large-scale LHSs across diverse healthcare settings.(7)

Strengthening system infrastructure

We did not identify any specific findings on the use of evidence to inform how system infrastructure can be strengthened. Evidence more generally focused on strengthening system infrastructure found that integrating social supports (e.g., housing assistance, employment programs, food security initiatives) into primary care improved access to mental health services, enhanced treatment outcomes, and reduced stigma for underserved populations.(8) According to one evidence synthesis, healthcare models that emphasize patient experience and holistic care pathways can also be impactful, but consideration should be given to the operational and social realities of implementation such as organizational constraints and social dynamics.(9) Another evidence synthesis found that expanding volunteer and caregiver skills, increasing access to culturally appropriate care, and improving infrastructure (i.e., physical structure, equipment) helped address challenges related to timely access and continuity of care for underserved populations.(10)

Addressing challenges in large-scale health-system transformation

For large-scale health-system transformation, the evidence highlighted the importance of strong multi-level leadership, historical context, well-integrated data systems, and continuous progress monitoring to overcome change fatigue and sustain system-wide change.(11) The use of evidence was not a focus of these findings.

No evidence documents were identified for this strategy that specifically addressed costs and/or cost-effectiveness or interest holders' views about and experiences with embedding continuous learning in health and social systems, strengthening systems infrastructure, and addressing challenges in large-scale transformation.

References

1. Brown B, Gude WT, Blakeman T, et al. Clinical Performance Feedback Intervention Theory (CP-FIT): A new theory for designing, implementing, and evaluating feedback in health care based on a systematic review and meta-synthesis of qualitative research. *Implementation Science* 2019; 14(1): 40.
2. Chua ME, Silangcruz JM, Kim JK, Koyle MA, Sriharan A. A scoping review on learning health networks available in pediatric surgical specialties. *Journal of Pediatric Surgery* 2023; 58(12): 2416-2428.
3. McDonald PL, Phillips J, Harwood K, Maring J, van der Wees PJ. Identifying requisite learning health system competencies: A scoping review. *BMJ Open* 2022; 12(8): e061124.
4. Anderson JL, Mugavero MJ, Ivankova NV, et al. Adapting an interdisciplinary learning health system framework for academic health centers: A scoping review. *Academic Medicine* 2022; 97(10): 1564-1572.
5. Nash DM, Bhimani Z, Rayner J, Zwarenstein M. Learning health systems in primary care: A systematic scoping review. *BMC Family Practice* 2021; 22(1): 126.
6. McMaster Health Forum. Creating rapid learning health systems in Canada. Hamilton: McMaster Health Forum; 2018. https://www.mcmasterforum.org/about-us/products/project/creating-rapid-learning-health-systems-in-canada (accessed 7 May 2026).
7. Ellis LA, Sarkies M, Churruca K, et al. The science of learning health systems: Scoping review of empirical research. *JMIR Medical Informatics* 2022; 10(2): e34907.
8. Vaz N, Araujo CAS. Service design for the transformation of healthcare systems: A systematic review of literature. *Health Service Management Research* 2024; 37(3): 174-188.
9. Gartner JB, Abasse KS, Bergeron F, Landa P, Lemaire C, Côté A. Definition and conceptualization of the patient-centered care pathway, a proposed integrative framework for consensus: A Concept analysis and systematic review. *BMC Health Services Research* 2022; 22(1): 558.
10. Lim HC, Austin JA, van der Vegt AH, et al. Toward a learning health care system: A systematic review and evidence-based conceptual framework for implementation of clinical analytics in a digital hospital. *Applied Clinical Informatics* 2022; 13(2): 339-354.
11. BC Patient Safety and Quality Council, Michael Smith Foundation for Health Research, InSource Research Group. BC's Clinical Care Management initiative: A case study for health system transformation. Vancouver, B.C.: BC Patient Safety & Quality Council; 2015.

Bain T, Ali A, Ciurea P, Dass R, Mishra S, Bhuiya AR, Whitelaw H, Chen K, Gauvin FP, Moat KA, Lavis JN. Living evidence profile #9e: Putting evidence at the centre of everyday life: Helping health and social systems learn and improve rapidly and contribute to a society-wide transformation. Hamilton: McMaster Health Forum; 8 December 2025.

Citizen partner acknowledgement: We are thankful to our citizen partners, Juanita Garcia and Patti Bryant, for their contribution to the living evidence profile by providing feedback that was incorporated into the final report. This living evidence profile was funded by the McMaster Health Forum and the Ontario SPOR SUPPORT Unit (OSSU). The McMaster Health Forum receives both financial and in-kind support from McMaster University. The views expressed in the living evidence profile are the views of the authors and should not be taken to represent the views of OSSU or McMaster University.

The authors wish to thank staff members who appraised the evidence syntheses: Jennifer Lee and Maureen Saha.