

Perspective

# What role can ‘health decision-makers’ play in supporting knowledge translation of health and medical research?

Laura Collie<sup>a,b,e</sup>, Andrew J Milat<sup>c</sup>, Anurag Sharma<sup>b</sup>, Siaw-Teng Liaw<sup>b</sup> and Marianne Gale<sup>d</sup>

<sup>a</sup> Office for Health and Medical Research, NSW Ministry of Health, Sydney, Australia

<sup>b</sup> School of Population Health, Faculty of Medicine, UNSW Sydney, Australia

<sup>c</sup> Centre for Epidemiology and Evidence, NSW Ministry of Health, Sydney, Australia

<sup>d</sup> South Eastern Sydney Local Health District, NSW, Australia

<sup>e</sup> Corresponding author: laura.collie@health.nsw.gov.au

## Article history

Publication date: 19 June 2024

Citation: Collie L, Milat AJ, Sharma A, Liaw ST, Gale M. What role can ‘health decision-makers’ play in supporting knowledge translation of health and medical research? *Public Health Res Pract.* 2024;34(2):e3422413. <https://doi.org/10.17061/phrp3422413>

## Key points

- Failure to translate health research into policy and practice has financial costs, system costs and impacts health outcomes
- Embedding research end-users into the research process can support knowledge translation, but there is limited evidence of the role of health decision-makers as research partners
- Health decision-makers bring their broad understanding of systems to a research team and are able to support the implementation of findings when the research is completed
- Different partnership structures can be further explored, including consultation, co-creation, co-design and co-production

## Abstract

Embedding research users into the research process can better support its translation into health systems and services. Still, the role of health decision-makers (HDMs) as research partners is poorly understood. HDMs, such as policymakers, administrators, directors or other managers, understand the broader contexts of a health service and have a mandate to facilitate change where appropriate, so they could play an important partnership role in research activities.

## Introduction

The failure to translate research into tangible policy or practice is a systemic issue for the health and medical sector, resulting in wastage of an estimated 85% of the US\$250 billion (A\$380 billion) invested in biomedical research each year globally.<sup>1-3</sup> It is widely acknowledged that integrating research users into the research process can be an effective method of supporting greater translation.<sup>2</sup> Engaging the users of research at an early stage in the research process can help ensure that the research produced is relevant and useful and so will be more likely to influence policy or clinical decision-making.<sup>2</sup>

Health decision-makers (HDMs) – such as policymakers, administrators, directors or other managers – refer to individuals in positions that require them to prioritise and implement changes or improvements to the health system on behalf of healthcare workers and the population.<sup>4,5</sup> HDMs can operate at an international level, a national level, or a jurisdictional or local level. Their official role may be a policymaker, director or another managerial position. This important group of research users rely on evidence and knowledge of the local population and local systems to inform their decision-making processes.

They seek and analyse information and evidence – from basic science to health services research, consider the implementation of that evidence into the local context, and decide to adopt, modify or reject the research on the basis of this assessment.<sup>6</sup>

Ensuring HDMs are integrated into the research process, including in research funding decisions, could enable positive findings to be more readily implemented into health services<sup>7</sup>, translating into better patient outcomes and a robust healthcare system.<sup>2</sup> HDM engagement can also inform whether a research project should be redesigned or disinvested where implementation is problematic or not feasible, which may improve the allocation of finite health resources. This paper seeks to articulate the need to further explore the role of HDMs as a partner in research.

## Knowledge translation

The World Health Organization (WHO) defined knowledge translation at a consensus meeting in 2005 as: “*The synthesis, exchange and application of knowledge by relevant stakeholders to accelerate the benefits of global and local innovation in strengthening health systems and advancing people's health*”.<sup>8</sup> The WHO noted that successful knowledge translation requires ‘push factors’, such as evidence and its format to support implementation, and ‘pull factors’, such as political support or local health service strategy.<sup>8</sup>

Individual studies rarely provide sufficient evidence to influence practice or policy change.<sup>9</sup> Implementation is complex and multifactorial, so an individual study rarely addresses the research questions of HDMs, particularly if they are not discussed early in the research design process. Knowledge translation activities can be ‘end of grant’, where researchers communicate their findings to end-users, or ‘integrated’, where research users are involved through the entire research process.<sup>10</sup>

Researchers are experts in their area or field. Still, other research users with relevant expertise can help bridge the divide between knowledge and action, and this input may be useful at multiple points in the research process. There is substantial evidence of the effectiveness of engaging clinicians and consumers in research but very little evidence about understanding the role of HDMs.<sup>9</sup>

## Facilitators and barriers to knowledge translation

The implications of poor translation can be profound regarding delayed health benefits for the populations they seek to serve and decreased system efficiencies for health services operating within finite budgets. For example, it has been estimated that applying current evidence-based cancer management practices and

policies would see a 30% improvement in outcomes and 10% decrease in cancer mortality in the US.<sup>11</sup>

As successful knowledge translation requires the facilitators of ‘push factors’ and ‘pull factors’, the barriers can also be considered from this perspective.<sup>8</sup> Research may be difficult to push into translation if it is not feasible to implement, has not considered the local context, or does not meet the needs of research users.<sup>12</sup> Research may also be difficult to pull into health services where there are political or financial sensitivities or where there may be programmatic and strategic reforms in train.<sup>8,13</sup>

These barriers highlight the importance of engaging with HDMs early in the research process to understand how push and pull factors may impact implementation and whether changes can be made to the research question or research process from the outset to maximise engagement with research findings at a later stage.

Despite the clear benefits of research-HDM engagement, it is important to recognise that there are ethical complexities to this approach, such as concerns that there may be impacts on researcher integrity or disagreements about how to interpret findings.<sup>14</sup> The research questions important to HDMs may be viewed as dull or not innovative by academia, so they are not readily publishable.<sup>14</sup> The research may be seen as being of lower value due to concerns around its independence and credibility.<sup>14</sup> These are potential barriers in knowledge translation with HDMs that should be explored further so they are considered alongside the benefits of developing such research partnerships.

## HDMs and their role in health systems

Complex and frequent decisions must be made within healthcare. HDMs are mandated to prioritise and implement changes or improvements to the health system on behalf of the population.<sup>4,5</sup> The remit for decision-making can be broad, covering areas including health system stewardship, population-level responsibility, stakeholder accountability, budgetary and human resources management, ministerial obligations and public health emergencies.

HDMs’ understanding of the complexities of the local health system is an important area of expertise that can inform research activities, and their role in change management can support implementation where evidence for change has been presented. HDMs are required to critically analyse evidence and consider this evidence within this local context.<sup>6</sup> The stronger the evidence generated and the demonstration of its informed feasibility and applicability to the local health system and population, the better it will address any uncertainties HDMs may have and the better it will support their decision-making.

The role of HDMs and health system complexity was brought into sharp focus during the coronavirus

disease 2019 (COVID-19) pandemic, where a range of restrictions and recommendations were introduced and locally tailored around the world to slow transmission and protect health systems and vulnerable populations.<sup>15</sup> High levels of trust in policymakers pre-pandemic were associated with increased compliance with these public health measures<sup>14</sup>, emphasising the importance of the HDM role in translating research from a population health perspective. HDMs were required to constantly review emerging evidence and adjust their risk settings as knowledge continuously evolved, supporting rapid change management across broad and complex settings, including large-scale and surge diagnostic services and mass vaccination programs.

HDMs generally prefer to receive evidence through systematic reviews and meta-analyses<sup>6</sup>, but these have limitations and are not necessarily specific to real-world local contexts and challenges. Instead, the evidence to inform local decisions may be of low quality with numerous uncertainties or be entirely theoretical; nonetheless, the HDM will need to understand this and make informed decisions on the next steps and how these should be supported.

## Partnerships between HDMs and health/medical researchers

Integrating HDMs into the research process involves their inclusion as part of a team that generates and uses research findings, evolving their role from that of a research user to that of a research partner. This concept has been explored in the literature in the case of clinicians and consumers being integrated into research processes<sup>16</sup>, but less so for the purpose of integrating HDMs and defining their role within this research partnership. There is growing evidence to support the positive effects of consumer engagement in research on the relevance and outcomes of health policy, research and services<sup>17</sup>, suggesting there may be transferable learnings for HDMs.

Partnerships can take the form of consultation, co-creation, co-design, or co-production, noting that there are very few evaluations of how these structures work in practice and how they can best achieve research impact.<sup>14</sup> Depending on the complexity of the proposed research and its implementation pathway, the spectrum of HDM involvement can include high-level advice (consultation), developing the research question (co-creation) or the research methodology (co-design), or actively undertaking research activities (co-production).

The perspective of HDMs on research partnerships is poorly described in the international literature<sup>2,18,19</sup>, as are the structures and incentives that support greater collaboration between researchers and this important research-user group. Further investigation to more clearly understand the role of HDMs in research would be relevant for health research funding globally, as there

is generally minimal focus on it within grant funding applications and peer-review processes.

## Conclusion

Integrating HDMs into the research process could be an important tool to support the implementation of research into the health and medical system. HDMs understand the wider and local contexts of their decision-making and have the authority to implement change, so they are valuable partners and contributors to research activities. The role of HDMs as research partners and the structures and incentives that could support this relationship have been little studied to date and merit further investigation. An understanding of the purpose and value of this partnership could support collaborative structures involving HDMs and researchers that improve the quality of research and increase the likelihood of research having a real-world impact on health outcomes.

## Acknowledgements

AM is a member of the PHRP Editorial Board. He had no involvement in the review of or decisions on this manuscript.

STL reports consultancy work for the World Health Organization (WHO).

## Peer review and provenance

Externally peer reviewed, not commissioned.

## Competing interests

None declared.

## Author contributions

LC led the writing of the manuscript. AM, AS, STL and MG contributed to the critical revision, editing and final approval of the manuscript.

## References

1. Morris Z, Wooding S, Grant J. The answer is 17 years, what is the question: understanding time lags in translational research. *J R Soc Med*. 2011;104(12):510–20.
2. Graham I, Kothari A, McCutcheon C. Moving knowledge into action for more effective practice, programmes and policy: protocol for a research programme on integrated knowledge translation. *Implement Science*. 2018;13:22.
3. Moher D, Glasziou P, Chalmers I, Nasser M, Bossuyt P, Korevaar D, et al. Increasing value and reducing waste in biomedical research: who's listening? *Lancet*. 2016;387(10027):1573–86.

4. Moberg J, Oxman A, Rosenbaum S, Schunemann H, Guyatt G, Flottorp S et al. The GRADE Evidence to Decision (EtD) framework for health system and public health decisions, *Health Res Policy Syst.* 2018;16(1):45.
5. Graham I, McCutcheon C, Kothari A. Exploring the frontiers of research co-production: the Integrated Knowledge Translation Research Network concept papers. *Health Res Policy Syst.* 2019;17:88.
6. Dobbins M, Jack S, Thomas H, Kothari A. Public health decision-makers' information needs and preferences for receiving research evidence. *Worldviews Evid Based Nurs.* 2007;4(3):156–63.
7. Collie L, Haines M. TRGS Round 1 Post-research implementation assessment. Overall report and findings. Sydney: NSW Government; March 2019 [cited 2024 Apr 8]. Available from: [www.medicalresearch.nsw.gov.au/app/uploads/2019/09/TRGS-Round-1\\_Post-research-Implementation-Assessment.pdf](http://www.medicalresearch.nsw.gov.au/app/uploads/2019/09/TRGS-Round-1_Post-research-Implementation-Assessment.pdf)
8. Greenhalgh R, Wieringa S. Is it time to drop the 'knowledge translation' metaphor? A critical literature review. *J R Soc Med.* 2011;104(12):501–9.
9. Grimshaw J, Eccles M, Lavis J, Hill S, Squires J. Knowledge translation of research findings. *Implement Sci.* 2012;7:50.
10. Canadian Institutes of Health Research. Priority Areas. Knowledge mobilization. Canada: Government of Canada; 2016 [cited 2023 Sep 26]. Available from: [cihr-irsc.gc.ca/e/29418.html](http://cihr-irsc.gc.ca/e/29418.html)
11. Graham I, Logan J, Harrison M, Straus S, Tetroe J, Caswell W, et al. Lost in knowledge translation: time for a map? *J Contin Educ Health Prof.* 2006;26(1):13–24.
12. Milat A, Li B. Narrative review of frameworks for translating research evidence into policy and practice. *Public Health Res Pract.* 2017;27(1):e2711704.
13. Jessani N, Siddiqi S, Babcock C, Davey-Rothwell M, Ho S, Holtgrave D et al. Factors affecting engagement between academic faculty and decision-makers: learning and priorities for a school of public health. *Health Res Policy Syst.* 2018;16(1):65.
14. Oliver K, Kothari A, May N. The dark side of coproduction: do the costs outweigh the benefits for health research. *Health Res Policy Syst.* 2019;17:33.
15. Bargain O, Aminjonov U. Trust and compliance to public health policies in times of COVID-19. *J Public Econ.* 2020;192:104316.
16. Cheetham M, Wiseman A, Khazaeli B, Gibson E, Gray P, Van der Graaf P et al. Embedded research: a promising way to create evidence-informed impact in public health? *J Public Health (Oxf).* 2018;40(suppl\_1):i64–i70.
17. Wiles L, Kay D, Luker J, Worley A, Austin J, Ball A et al. Consumer engagement in health care policy, research and services: a systematic review and meta-analysis of methods and effects. *PLoS One.* 2022;17(1):e0261808.
18. Farley-Ripple E, Oliver K, Boaz A. Mapping the community: use of research evidence in policy and practice. *Humanities and Social Sciences Communications.* 2020;7(83).
19. Kothari A, McCutcheon C, Graham I, Network IR. Defining integrated knowledge translation and moving forward: a response to recent commentaries. *Int J Health Policy Manag.* 2017;6(5):299–300.