Knowledge mobilisation to enhance research impact

CERI User Guide

Last updated 11 November 2021

Acknowledgement

This chapter of the User Guide is one in a series available from The Australian Prevention Partnership Centre website.

It was prepared by members of the Coordinating Group to provide practical tips on knowledge mobilisation and science communication for researchers working in the prevention of chronic disease.

Thank you to Dr Michelle Irving for development of this framework.

What is knowledge mobilisation?

Knowledge mobilisation describes how knowledge is created and used to inform policy and practice. It is defined in literally hundreds of ways in the literature. At the Prevention Centre, we define it as the overarching process of moving knowledge to create and enhance research impact into policy and practice.

Knowledge mobilisation is a relatively new term that comes from the implementation science literature. There are many different definitions; however, most of these centre around making academic research accessible through a deliberative approach to creating purposeful connections between the researcher and the research user, with the goal of improving the quality of the research itself and making it more likely to be used in public policy and professional practice.

'Mobilising' implies a social interaction and involves an iterative process of co-creation of knowledge through a collaborative process i.e. knowledge mobilisation offers an approach to improving the usefulness of research through making research outcomes more accessible to non-academic audiences. We also recognise that context is important, and that research itself is improved when informed by the knowledge and experience drawn from applied policy and practice settings.

Many knowledge mobilisation strategies are similar to communications strategies. Communications involves developing the strategy, channels and tools to transfer knowledge. Communications is an integral tool of knowledge mobilisation.

Knowledge mobilisation strategies

Knowledge mobilisation can incorporate many different strategies. These can include: implementation, dissemination, networking, brokering, co-production, advocacy, exchange and integration. (Figure 1)

Knowledge mobilisation strategies are best applied right from the start of the research – such as refining the research question to ensure relevance for end-users, and using co-production. However, knowledge mobilisation can be used at any stage throughout the research process.

Figure 1: Knowledge mobilisation can incorporate many different strategies. The eight strategies pictured are: Integration, Exchange, Advocacy, Co-production, Brokering, Networking, Dissemination and Implementation.

Each strategy should be carefully chosen to suit the situation at hand. An analysis of the system with which the knowledge is attempting to interact can be beneficial in determining the best strategy. Taking a systems thinking approach can help to determine who may hold the roles and power in the system and how to leverage these for the knowledge mobilisation process.

A systems approach to knowledge mobilisation

In the literature, linear models describing knowledge transfer and translation have moved towards multi-directional approaches that take into account the complexity of the systems we are trying to influence.
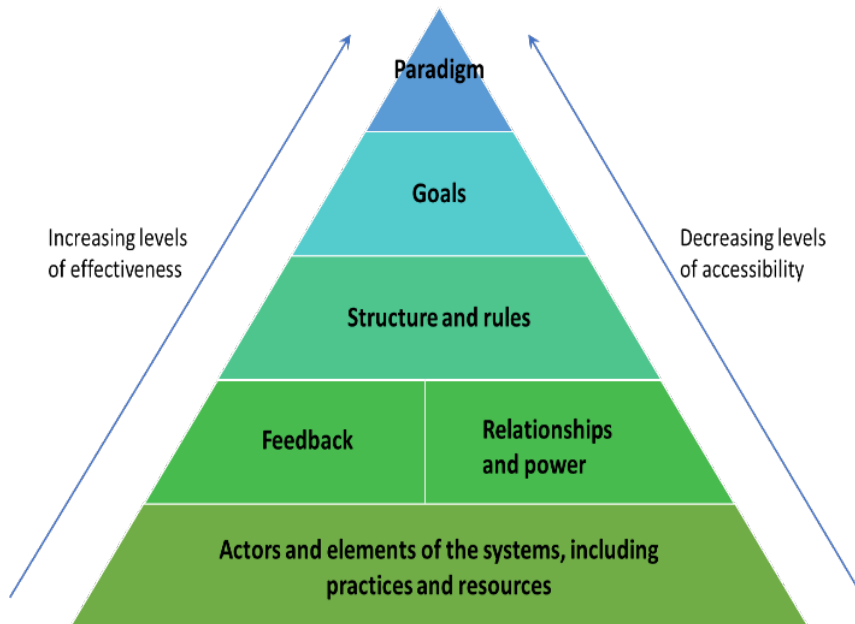
Figure 2: Leverage points for changing complex systems. This pyramid diagram includes six suggested areas to target: from bottom to top they are 'Actors and elements of the systems, including practices and resources', 'Feedback', 'Relationships and power', 'Structure and rules', 'Goals' and 'Paradigm'. The area at the bottom has the least effectiveness but the most accessibility, and vice versa at the top level.

A systems approach to knowledge mobilisation is where knowledge is produced and becomes meaningful through social processes.

Haynes et al have found that using systems thinking can enhance and fundamentally transform knowledge mobilisation. Previous literature suggests six key areas or leverage points to target when applying a systems approach to organisational change. (Figure 2).

As Figure 2 indicates, these leverage points in a system are conceptualised as a hierarchical framework in which change is harder to achieve at the upper levels but, if successful, is likely to be more transformational. Leverage points in the lower levels are needed to target upper-level levers.

Understanding the system within which your research sits and how and where you are trying to influence is a key step to developing targeted knowledge mobilisation strategies.

Developing a knowledge mobilisation systems mindset

The Prevention Centre has synthesised a series of targeted questions from the literature. These questions are designed to create a 'guide' for systems thinking in knowledge mobilisation and develop thought processes conducive to further developing knowledge mobilisation plans. (Table 1)

We suggest you reflect on these questions before you start your research, or shortly after it has started. You can keep coming back to them during the research process as a reflective process during this time.

This guide is based on the hierarchy of leverage points above and give practical points to reflect on. These 'questions' do not necessarily need written answers, but it can be something you use to reflect on with your research team and decide which leverage points are most applicable to your research and where you may focus your energy and efforts.

Table 1: Knowledge mobilisation systems guide - Questions for planning knowledge mobilisation within a system

Goals, structure, rules and feedback of the target system

1. What is the system(s) that we are working in and want to change?
    a. What are the boundaries of the systems that we will tackle? Where will we stop and why?
2. Can a causal loop diagram, concept map or social network analysis of the system be created to enhance understanding of the system?
3. What are we ultimately trying to change in the system?
    a. What is the overall goal of the change you want to make?
    b. What are some of the objectives that will assist to achieve this goal? (These need to be flexible and be able to adapt in the process)
4. Are there factors within the systems (feedback loops) that are reinforcing the status quo? How can you break this? Can you create 'health promoting' feedback loops?
5. How could the system respond to the messages arising from our work? Can you envisage any push back to the changes occurring? How might we mitigate this from the start?

Paradigms and core beliefs of the system

6. What are the underlying core beliefs or values, within the system(s) we are trying to change, do they need to be challenged?
    a. Are there beliefs that are 'core', or are there any which may be more amenable to change?
    b. Does any knowledge need to be produced or brokered to target these core beliefs?
7. Reflect on the team's core beliefs, assumptions, or values about the system(s) we are trying to change
    a. Are there any blind spots as they relate to the system we are trying to change?
    b. How will we implement ongoing learning and reflection on the core beliefs within the system and within the team?

Relationships and power in the system

8. Who are the key players, power brokers or influential actors that need to be engaged? Who should use the knowledge?
    a. Who has the power to make key decisions? Who can influence them?
    b. How can you increase the diversity of alliances, partnerships, or stakeholders?
        i. To more deeply understand the value, core beliefs and assumptions underpinning the system?
        ii. To increase the range of opportunities for the knowledge to move through in the system to effect, influence, or support change
    c. Can you 'blur' the boundaries between these groups, not just 'bridge the gap'? How can you bring these groups together?
    d. Are there any power imbalances in your collaborations? How are you dealing with this?
9. Who will use this knowledge? How can we ensure our research is fit for purpose for your stakeholders/knowledge users?
    a. What matters to the key players and stakeholders? How can we find out? Are there any policy or practice challenges?

Actors and elements of the system including practices and resources

10. What parts of the system do we need to influence to make changes?
11. What capacity already exists in the system to engage with and use our work? e.g. Peak bodies, other researchers. How can this be harnessed or increased?
12. How will we engage with the key actors and elements in the system?
    a. How many of our research process steps include meaningful involvement with our stakeholders? When will we involve them? What are they going to do as part of this project?
    b. How can we maximise achievement of this? eg-Steering committee, brokering, regular communication, engagement with stakeholder groups
13. What resources are within the system?
    a. What resources are present, how could they be shifted to create change?
    b. What additional resources are needed to create change?

Developing a knowledge mobilisation plan

At the Prevention Centre, we have adapted eight key archetypes of practice in knowledge mobilisation identified by Davies et al. These were developed from a large body of empirical work on mapping knowledge mobilisation within healthcare.

Use these archetypes to reflect on your work, as a method to develop knowledge mobilisation planning. Firstly, what is happening NOW under each archetype for your project? And secondly, what are the future plans?

Your projects may not have something to document for *all* the archetypes. There is no right or wrong – the archetypes describe the breadth of knowledge mobilisation activities, not best methods for your context.

Reflect on these against the systems thinking guide that you have just completed. How can you effectively use these strategies to mobilise the research knowledge you are creating?

Knowledge archetypes

A. Producing knowledge
Production of research-based knowledge and 'products': explicit knowledge, reviews, research summaries, web portals, collation and synthesis etc. Explicit, codified, theoretical, empirical knowledge production and dissemination. Knowledge driven problem solving, aimed at practitioners, managers and policy makers.

B. Brokering own research
Brokering own research to policy makers/practitioners. Interactive and relational models for research use, emphasised by how agencies seek to share research. Create interactive spaces where knowledge and expertise can interact. Focus on brokering new knowledge and flow of new research. Mostly push but includes some relationship models.

C. Brokering wider research
Brokering wider research to policy makers/practitioners. Interactive and relational models as in B, but focus is on brokering wider bodies of research on a given issue. Working with 'stocks' of existing research-based knowledge. Informed by 'linkage and exchange'.

Mechanisms: dissemination, training and education, interaction. Researchers and policy makers seen as central.

D. Advocating for use of evidence (proselytisers for an evidence-informed world)
Promote for a greater role for research-based knowledge and seek the necessary infrastructural, organisational and cultural change needed to make this happen in an effort to address the issue of knowledge application being heavily contextual, problem driven and socially situated. Interaction is central.

Mechanisms: training, education, interaction, social influence, incentives, reinforcements.

E. Research into practice (implementation)
Facilitating implementation of instrumental evidence by helping organisations with the change management process. Improving practice through the application of research knowledge from outside the organisation where change is being sought.

Mechanisms: dissemination, interaction, social influence, facilitation, incentives, reinforcements. Includes relationship models with some systems models.

F. Researching in practice (research and implementation combined)
Research and implementation done simultaneously. Support for local implementation, but a focus on local learning, absorptive capacity development, co-produced research knowledge and bringing together all stakeholders.

Mechanisms: interaction, social influence, facilitation, incentives and reinforcements. Shaping a wide range of outcomes, includes relational and systems models.

G. Fostering networks (existing or new)
Create develop or mould collaborations and network that shape and share expertise, increase the role that research-based knowledge plays a role in these networks. Uses knowledge from within and externally to the organisation.

Mechanisms: production, dissemination, training and education, interaction, social influence, facilitation. Uses relationship models.

H. Advancing the field of knowledge mobilisation

Knowledge mobilisation is not yet under-pinned by a coherent body of theorising or extensive empirical evaluation. This refines the field, building shared understanding and committing to further empirical study. Application of 'knowledge about knowing'.

Mechanisms: production, dissemination, incentive and reinforcements. For enlightenment and conceptual use. Researchers as central. Emphasis on external context.

Knowledge mobilisation checklist

The knowledge mobilisation checklist can then be used as a checklist to focus the knowledge mobilisation strategies within this system, if needed.

A useful undertaking at this time is stakeholder mapping. See how you are involving stakeholders in the research process and how you can target them with communications strategies (See chapter on how to write a communications plan).

## Knowledge mobilisation systems planning tools

Overall goal. What needs to change in the system?
What is/are your research/knowledge mobilisation goal/s? - What knowledge are you producing? (A)^ - Brokering own/wider research? (B&C) - Advocating for use of evidence? (C)
Have you mapped the system you want to influence? What does this look like? (G)

What are the core beliefs that you want to target in this system? (A)

Have you mapped the stakeholders within your system? (G) Check for diversity, power/decision makers, power imbalances

List current and potential stakeholders, influencers, decision makers:

Prioritise stakeholders by level of influence and level of interest

Level of interest

High		
Some		
Low		
Low	Some	High

Level of influence / power
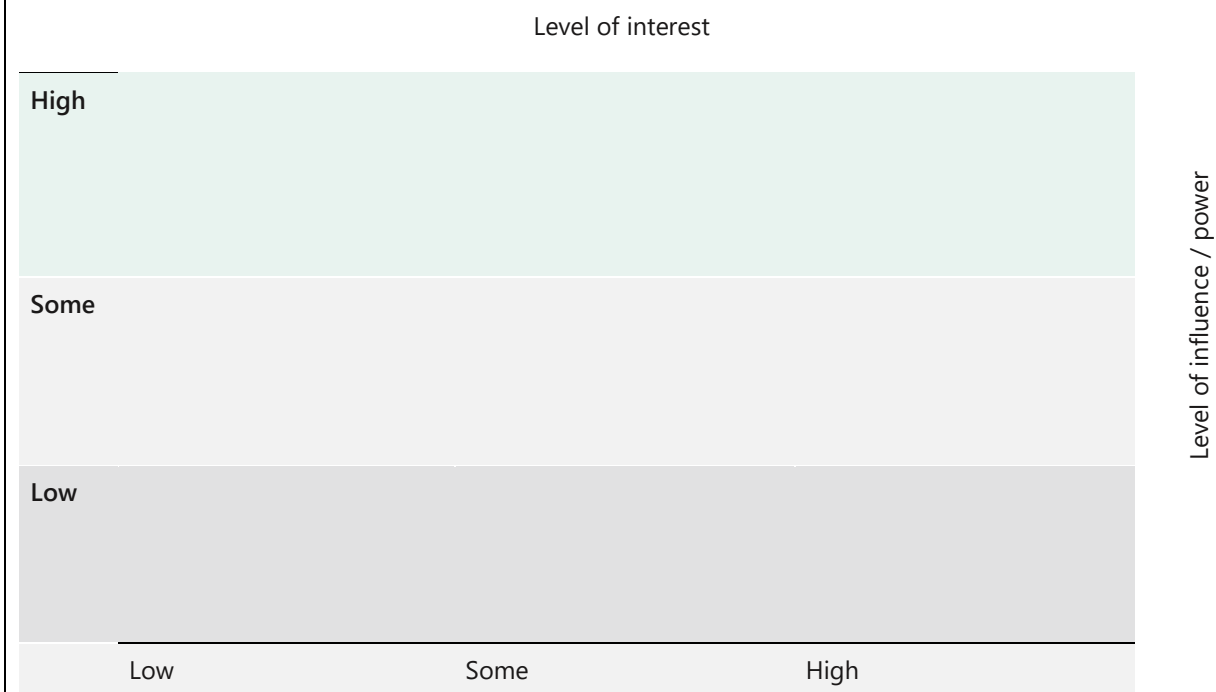
Strategise for level of engagement with each stakeholder – look at coproduction, codesign and communication strategies
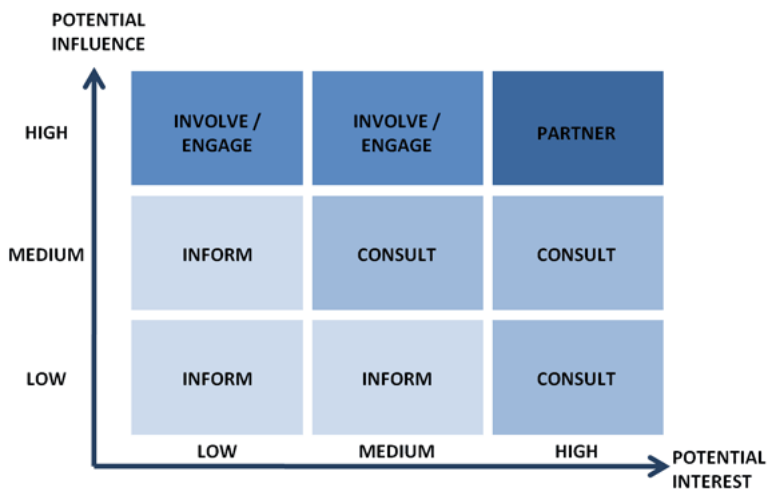

Figure 3: Diagram indicating the effects of Potential Influence and Potential Interest. These range from lowest to highest as: Inform, Consult, Involve/Engage, Partner.

At what level of co-production are you working? (E&F)	Idea formulation	Research planning	Dissemination	Advocacy	

How are you maximising co-production/ networking? (F&G) (Add rows for each target group)	Target group	Key message	Strategy*	Product#	When

Are other alliances are needed? (G)

^Letters indicate which knowledge mobilisation archetype that the question checklist relates to.
*Strategies: Small group meetings, education, collaboration, media, incentives, conferences etc.
#Product: Presentation, video, podcast, web, academic article, findings brief, summaries etc (See Communications strategy).

* Davies HT, Powell AE, Nutley SM. Mobilising knowledge to improve UK health care: learning from other countries and other sectors – a multimethod mapping study. Health Services and Delivery Research. 2015;3(27).

Further reading

- Haynes A, Rychetnik L, Finegood D, Irving M, Freebairn L, Hawe P. Applying systems thinking to knowledge mobilisation in public health. Health Res Policy Syst. 2020 Nov 17;18(1):134. doi: 10.1186/s12961-020-00600-1. PMID: 33203438; PMCID: PMC7670767.

- Davies HT, Powell AE, Nutley SM. Mobilising knowledge to improve UK health care: learning from other countries and other sectors – a multimethod mapping study. Health Services and Delivery Research. 2015;3(27).

- Haynes A, Rowbotham S, Grunseit A, Bohn-Goldbaum E, Slaytor E, Wilson A, Lee K, Davidson S, Wutzke S. Knowledge mobilisation in practice: an evaluation of the Australian Prevention Partnership Centre. Health Res Policy Syst. 2020 Jan 31;18(1):13. doi: 10.1186/s12961-019-0496-0. PMID: 32005254; PMCID: PMC6995057.

- Irving et al. Developing a 'systems thinking' guide for enhancing knowledge mobilisation in prevention research (In press)