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# AUSTRALIAN PRIMARY HEALTH CARE RESEARCH INSTITUTE KNOWLEDGE EXCHANGE REPORT



ANU COLLEGE OF MEDICINE, BIOLOGY & ENVIRONMENT

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Research Institute (APHCRI)  
ANU College of Medicine, Biology and  
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Level 1 Ian Potter House  
Corner of Gordon & Marcus Clarke Streets  
The Australian National University  
Canberra ACT 0200

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This document provides background information on Knowledge Exchange (KE) and the Australian Primary Health Care Research Institute's (APHCRI) approach to it.

## CURRENT LITERATURE ON KE

KE is a process that aims to get research knowledge into action; it has an 'applied' focus, where research knowledge is translated into either decision-making or practice settings. KE interventions are necessary because traditionally research has been underutilised in applied settings – there is a gap between the knowledge produced and its effective deployment in a use context.

KE therefore is about research utilisation. Many models have been used to describe research utilisation processes. The earliest of these are described as being either **producer push** or **user pull** models. Both of these models assume a unidirectional flow of research knowledge into action settings. In the case of producer push model, the research community produce knowledge with an understanding that if it is of good quality, end users would automatically pick it up. In the case of user pull model, end users of knowledge direct the parameters of the research required, and researchers are contracted to produce the knowledge users think is needed.

More recently these models of research utilisation have been replaced with **interaction models**; where both users and producers work together to produce research knowledge relevant for the setting it is to be applied. Interaction approaches are informed by an understanding that users and producers form two distinct communities underpinned by different and competing values. Part of this move to interaction approaches is informed by the idea that the 'contexts' for KE application are complex, dynamic and subject to change. For this reason, KE interventions should be adaptable and constantly evaluated to locate problematic areas in the KE process that can then be redressed. In this way, evaluations should be an ongoing part of a KE intervention, and should also occur in its aftermath to gauge its effectiveness.

## CONTEXT AND EVIDENCE IN KE

The idea that **contexts** for KE are complex encompasses the recognition that any arena for a KE intervention should take into account that there are certain power-relations or types of interested action operative within different settings. Underpinning these dynamics are finer grained understandings of research utilisation that make KE more multi-dimensional. The three most salient of these are:

- **Instrumental use** – research results are applied directly to a problem.
- **Symbolic use** – research is used to support a decision that has already been made.
- **Conceptual use** – research knowledge changes the way decision makers think about problems, although it is not applied to an immediate concern.

These types of utilisation occur simultaneously, although their ratios will vary across domains. Because of this understanding, what counts as **evidence** varies across contexts. Conceptually, notions of evidence depend on whether it is construed as either **tacit** or **explicit** knowledge. Tacit knowledge is knowledge gained through experience, while explicit knowledge is more like rational scientific knowledge insofar as it can be publically stated. Evidence is not something wholly objective being influenced by wider social values, constraints and experience that effect how or whether user groups will pick it up. This means that what counts as evidence may have little to do with whether it was produced through rigorous or robust research practice.

The question then becomes one of how evidence or knowledge accrues or decreases in value according to the context it is to be applied. Even in implementation settings where more than one interest group has a stake, it does not necessarily follow that all parties will equally value the selected evidence – this is sometimes linked to things such as competing interests, but 'equally' may be linked to whether interest groups feel a sense of ownership over research outputs.

## BARRIERS AND FACILITATORS

For effective KE there needs to be some idea about what barriers or facilitators exist within an intervention setting. Barriers are thought to inhibit knowledge flows. The potential range of barriers is almost endless and includes things such as competing interests already mentioned, including:

- **Structural constraints** – capacities for interaction and communication.
- **Cognitive constraints** – the intrinsic motivations of actors.
- **Cultural constraints** – where strong professional boundaries inhibit knowledge sharing.

Facilitators, on the other hand, are really just the inverse of barriers. One way of thinking about this is in terms of organisational settings having certain capacities – while these capacities might act as barriers in some ways, they can also be deployed to facilitate KE. The trick is to understand where these capacities lie and tailoring an intervention to make best use of them in terms of knowledge uptake.

## SOME STRATEGIES

In part, KE strategies involve locating where potential barriers exist, including an ongoing commitment to assessing blockages to knowledge flows during an intervention and adapting it to overcome the barriers. This can be understood as 'mapping' the context – firstly in the pre-intervention phase assessing where things such as competing interests and values might lie, and secondly creating maps of knowledge flows during an intervention's course.

Additionally, increasing cooperation between producers and user groups is a way of overcoming KE barriers. The idea is that through interactions, partnerships are created that facilitate the flow of knowledge. These can involve, among other things, producers and users jointly setting research priorities to get a better fit to context as well as producing research in a timely fashion. Ideally, different types of interaction between groups should occur through all phases of a KE process.

Related to increased interaction is the development of communities of practice: Self-organising collectives, focused on a common goal. There are a number of assumptions behind this idea, among them that:

- sense of ownership will be increased
- partnerships will be cultivated
- professional skills will be developed
- information will be rapidly disseminated through a practice network.

Communities of practice are also thought to be a good way for tacit knowledge to be utilised.

The use of skilled facilitators called knowledge brokers is another strategy thought to increase research uptake. Knowledge brokers have many different roles. They can produce fruitful interactions between users and producers, and can act as knowledge managers, linkage agents, or even as capacity builders.

Finally, ideas of how research findings should be communicated are important. This is a question of how and through what mediums knowledge should be transmitted to produce successful research uptake. Mediums should be appropriate to the use context, and might include activities such as lobbying research findings or use of database or web-based technologies. However, this is not just a question of appropriate mediums for knowledge transmission but relates also to levels of detail required for the use context. In other words, it is connected to notions of how best to tailor evidence to KE setting.

## VIEWS OF STAKEHOLDERS

APHCRI facilitated a workshop in 2009 to garner views about KE and following are the perspectives of the key stakeholders.

### **Perspectives of policy advisers on barriers to interaction with researchers:**

- Willing to use evidence in informing policy, but utilisation of evidence is only one factor that informs policy processes. Other considerations include political disposition, public opinion and cost.
- There are often short time frames for obtaining information needed so there is a need to access information quickly. But there is a lack of knowledge of relevant experts to be contacted.
- Research is often not presented in a useful way (only a limited number believed that local research was both relevant and presented in a useful fashion).
- There is a lack of understanding among researchers about the nature of policy processes.

### **Perspectives of researchers on barriers to interaction with policy advisers:**

- Lack of knowledge of who to contact and how to go about it.
- Lack of incentives for researchers and lack of research funding.
- Concern about loss of researcher autonomy.
- 'Firewalls' between researchers and public servants.
- Some confusion about the APHCRI model.
- Lack of clarity from policy advisers about their needs, a lack of 'corporate memory', and high turnover of policy advisers.

### **Other perspectives on research utilisation covered:**

- tensions between quality and speed of research output
- cultural differences across sectors
- consumer roles in policy and research development
- issues of accountability within KE environments.

Suggestions for overcoming these barriers emphasised the need for more interaction across sectors using knowledge brokerage strategies and action-based networks and increasing quantity and quality of longer term relationships between research and policy sectors.

The perspectives covered generally accorded with the literature on research utilisation. The participants' understandings of this allowed a focus on how best to get interaction across sectors, what kinds of mechanisms to use, and who to involve in these processes.

### **Elements identified for a knowledge brokering framework were:**

- the use of interactive mechanisms throughout research and policy processes
- emphasis on demand pull
- good relevant stakeholder involvement
- clarity in roles and responsibilities in research and translation
- sectoral cultural differences recognised and respected
- building on existing structures
- centrality of flexibility in approaches.



## EVALUATING APHCRI'S PAST APPROACH TO KE

APHCRI contracted the School of Population Health, University of Queensland to review APHCRI's processes to fund research and the effectiveness of the synthesis and transfer of knowledge generated by APHCRI-funded research.

One of APHCRI's goals is 'to facilitate the uptake of research evidence in primary health care policy and practice'. APHCRI funds research which produces knowledge. How that knowledge is transferred to users and, in turn, helps to shape policy and practice is thus of significant importance to APHCRI. The extent to which its funding processes help or hinder knowledge transfer is also an important consideration.

To gain insights into such issues a telephone-based interview survey was carried out in 2009. The survey encompassed 23 APHCRI-funded researchers, small samples of researchers with unsuccessful applications for APHCRI funding, and users (or potential users) of research findings.

The main outcomes of the survey were:

- The respective roles of the APHCRI ANU and Network researchers are defined more by practice than theory and, as a result, are not consistently understood.
- Researchers recognise the need for and importance of 'linkage and exchange', but when applying for APHCRI funding, this does not appear to feature prominently in most researchers' minds.
- Researchers' views on where linkage and exchange efforts should best be targeted are often naive and do not appear to be well-informed by an understanding of how policy is made. There is a heavy reliance on traditional academic approaches to dissemination.
- Barriers to effective dissemination identified by researchers included frequent changes among senior government officials – making it difficult for researchers to maintain effective networks – and lack of explicit funding for dissemination activities.
- Factors identified as aiding dissemination included APHCRI's 1:3:25 formats for reporting of research findings and APHCRI's role in providing advice on, and establishing forums for, communication of research findings.
- For their part, users identified the value of accessing findings, as and when required, to support or justify a position (user pull) rather than having them actively promulgated (researcher push). The potential for intermediary bodies to support such approaches was also highlighted.
- Views on the impact of APHCRI-funded research varied. Researchers identified some examples where their work had made a discernible impact on policy or practice. More commonly, research findings were seen to have a less direct, but not less powerful, impact through helping to shape the policy agenda. The tensions between evidence and politics were also noted.

**Specific recommendations** arising from the survey include the need to revisit and revise the respective roles of the APHCRI ANU and Network researchers:

- The scope for clearer and hence more enforceable requirements for linkage and exchange plans should be made explicit in research proposals.
- The opportunity for APHCRI ANU and Network researchers to develop a broader and more nuanced understanding of research users and how best to facilitate the uptake of APHCRI research findings.

## CONCLUSION

The literature identifies the translation of knowledge into policy and practice as inherently complex and messy. It also identifies the range of influences that come to bear on policy development and that what constitutes evidence in this context. Increased interaction and stronger relationships across the research and policy sectors were seen as facilitators for integrating evidence into policy formulation. APHCRI has an identified role in facilitating knowledge exchange and in supporting researcher engagement with key stakeholders to enable the uptake of research evidence into policy and practice.







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