

The contribution of a knowledge exchange organisation in primary healthcare

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Background

The use of relevant quality research and evidence to inform policy and practice is complex, takes time and requires skill. Over the past 20 years, a knowledge exchange organisation (the Primary Health Care Research & Information Service [PHCRIS]) has developed, implemented and evaluated ways to accelerate the use of research and evidence to strengthen Australian primary healthcare and thereby enhance health.

Objective

This paper outlines how PHCRIS operates to accelerate the use of research and evidence in primary healthcare policy and practice.

Discussion

PHCRIS takes an integrated approach to accelerate the use of research and evidence in primary healthcare by sharing information, research and evidence; summarising and synthesising research; building capacity; and facilitating knowledge exchange. Resources developed to support this approach have a strong emphasis on access, quality, relevance and timeliness. The success of the approach has been achieved through respectful and effective engagement with stakeholders, extensive use of technologies and continuous quality improvement.

In a patient-centred healthcare system, primary healthcare is well placed to identify the strengths and needs of patients and the system, and to use, add to and initiate research that better defines the problem and contributes to the solution. However, the use of relevant quality research and evidence to inform primary healthcare policy and practice is complex, takes time and requires skill.

The opportunity cost of irrelevant or under-used research is substantial.¹ Policy and practice can be based on insufficient evidence or on evidence that has been conducted in a different context to the one in which it is being applied. Given these challenges, there is a need to ensure that research directions are informed by research users (policymakers, health managers, health professionals, academic institutions and communities) such that quality, relevant research and evidence are used to influence and inform policy and practice. Knowledge exchange can facilitate this. Knowledge exchange in healthcare research is a collaborative, strategic way of doing research that values engagement with research users from the outset to ensure research is relevant, informed and worthwhile.

It is recognised that there are cultural and professional boundaries that limit the interactions between researchers and research users in policy and practice. Publishing research findings in a peer-

reviewed journal is not enough when it comes to applying research to improve primary healthcare. Furthermore, important observations and innovations at the practice level might never be published because health professionals need to attend to the demands of a busy practice. Research users need research and evidence to be presented in an accessible, tailored and timely manner. There is a move for researchers and research users to construct connections and form closer relationships with each other, and there is much that can be done through facilitating knowledge exchange. A knowledge exchange organisation can bridge the gap between research creation and research use.²⁻⁵

To effectively achieve knowledge exchange, it is important to know the audience or stakeholders involved. The partnership pentagon for health proposed by Boelen⁶ defines those key stakeholder groups as policymakers, health managers, health professionals, academic institutions and communities. According to Boelen,⁶ the aim of bringing healthcare stakeholders together is to bring them towards a common goal: 'health for all and the underlying values of quality, equity, relevance and cost-effectiveness'.

Over the past 20 years, the Primary Health Care Research & Information Service (PHCRIS), a national knowledge exchange organisation, has developed, implemented and evaluated ways

to accelerate the use of research and evidence to strengthen Australian primary healthcare and thereby enhance health. PHCRIS has effectively drawn together key stakeholders by addressing the following barriers identified by Bennett and Jessani⁷ as leading to the knowledge gap:

- don't know – that the information exists or what action to take
- don't understand – the information, what it means or why it is important
- don't care – see the information as irrelevant, not beneficial to their agenda
- don't agree – think the information is misguided or false.

This paper outlines how PHCRIS has pragmatically applied knowledge exchange principles to strengthen primary healthcare. The four key ways it does this are by:

- sharing information, research and evidence
- summarising and synthesising research
- building capacity
- facilitating knowledge exchange.

This paper describes the structure and content of PHCRIS resources and provides evidence of use and engagement by stakeholders with PHCRIS.

The evidence base

Models of knowledge exchange that have influenced PHCRIS include the following:

- The 'researcher push–user pull' model² focuses on researchers bringing research evidence to the attention of research users (researcher push) and research users changing their structures and processes to improve their ability to apply research evidence (user pull).
- The linkage and exchange model³ centres on researchers and research users developing ongoing and trusted relationships for the exchange of knowledge.
- Integration of creation and translation – the knowledge to action cycle⁸ – model describes the processes of knowledge creation and the implementation/ application of knowledge.
- Dissemination via knowledge brokering⁴ involves brokers and networks disseminating knowledge and facilitating its application.
- The concept of the 'Partnership Pentagon' (ie policymakers, health professionals, academic institutions,

communities and health managers) depicts the heterogeneity of those involved in knowledge exchange and how this can add value when seeking ways to improve health systems.⁶

PHCRIS has consolidated these models and bases its practice on the following principles:

- Information (including research and evidence) comes from credible sources, is relevant, topical and timely.^{9,10}
- Information is delivered in a tailored manner to suit the user.^{4,8,10,11}
- Information is easily accessible.⁴
- Information is targeted to the different audiences.⁴
- Research is summarised and synthesised.^{2,12}
- Networking and collaboration is supported and facilitated between researchers and research users.^{3,4,9,10,13}
- Stakeholder engagement is actively sought and valued.^{4,10}
- Capacity building in knowledge exchange is provided.⁹
- Ongoing monitoring and evaluation is undertaken and acted on.^{2,14}

Table 1. PHCRIS key resources and their usage (at end September 2015)

Category	Resources	Content extent	Usage
Sharing information, research and evidence	Website	31,500 items	42,783 page views per month
	PHC Search Filter		19,732 page views
	e-newsletter: <i>This Week in PHC</i>	Weekly issue of the latest research and information	4745 subscribers
Summarising and synthesising research	<i>Policy Issue Reviews</i> : topical Australian health policy issues	20 reviews	11,223 downloads
	<i>RESEARCH ROUNDup</i> : summary of current research on specific PHC topic	43 issues	60,179 page views, 16,969 downloads
Building capacity	Online guides: <i>Getting Started Guides</i>	46 guides	22,784 page views
	Video guides	23 guides	3025 views
	Knowledge Exchange workshop	3 workshops	96 participants in total
Facilitating knowledge exchange	Annual National PHC Research Conference	20 conferences	5689 delegates in total
	Research Profiles: people in PHC research	2902 people, 12,424 items	571,757 page views

What PHCRIS does

Sharing information, research and evidence

There has been an extensive amount of information collected and/or produced by PHCRIS since it was established in 1995. This information, coming from credible sources, is selected because it is relevant, topical, timely and of good quality. It includes research (papers, summaries and syntheses), reports, media releases, news, resources, community notices, events and more. This information is made freely available on the PHCRIS fully searchable website, thus providing easy and fast access via a single portal entry. It is tailored and targeted to the key stakeholder groups – policymakers, health managers, health professionals, academic institutions and communities. Stakeholders are also encouraged to provide feedback on the website so PHCRIS can continuously monitor quality and be responsive to stakeholders' needs.

An additional feature on the PHCRIS website, the Primary Health Care (PHC) Search Filter, provides fast access to primary healthcare research published in PubMed. Prepared topics plus a build-your-own feature add to this search filter's capability.

To accelerate the sharing of information, PHCRIS has developed an effective and diverse dissemination strategy. PHCRIS offers free subscriptions to its weekly e-newsletter (www.phcris.org.au/subscribe), which contains links to the latest additions on the website presented in a tailored manner and targeted to the diverse audience. More than one in five of the current 4745 subscribers click through to at least one item each week. PHCRIS staff attendances at conferences comprise a mix of research presentations and conference booths where staff engage with delegates, introducing them to PHCRIS resources and finding out how PHCRIS can assist them further. Social media has also been used as both a promotion tool and as a further avenue to share information in a timely manner;

PHCRIS is active on LinkedIn, Facebook and Twitter.

Summarising and synthesising research

Drawing together high-quality evidence into a single document for those who want or need to know that it exists, what it means and how it might be used, is likely to encourage evidence-informed discussions and decisions. Towards this goal, PHCRIS produces *Policy issue reviews*, which are targeted syntheses of research relevant to specific policy issues. Early-stage involvement of stakeholders in the development of the policy issue provides assurance that PHCRIS is providing a relevant and useful service. In addition, the quality of the material produced is reviewed by topic experts (from the PHCRIS Research Profiles) who provide feedback on the research syntheses.

A similar process with expert review is in place for RESEARCH ROUNDups, which are two-page summaries of current research on a topical issue. The value of both these publications is demonstrated by the number of times they have been downloaded (Table 1).

Building capacity

To understand and contribute to the sometimes complex field of health research often requires the development of research and communication skills among health professionals and those wanting to use research to improve healthcare systems and processes. Given the emerging field of knowledge exchange, PHCRIS supports the development and application of knowledge exchange skills in researchers and research users such that effective knowledge exchange is normalised for both groups. PHCRIS does this via the production of online *Getting started guides*, video guides on topics in consultation with stakeholders, as well as via knowledge exchange workshops. Reflecting the need for ongoing support, the guides provide clear and concise

introductions with regularly updated links to further opportunities for skill development.

Facilitating knowledge exchange

Face-to-face engagement underpins the development of trust and collaboration. To promote research findings, or challenge a belief that the information is irrelevant, misguided or false, researchers must first gain the trust of research users. Similarly, research users involved in ensuring the quality, equity, relevance and cost-effectiveness of healthcare have a responsibility to be well informed. The key annual event for PHCRIS, the national PHC Research Conference, is targeted at both researchers and research users, and has an overarching focus on networking and engagement. Held annually, this event rotates around different capital cities in Australia and returns to Canberra every second year to maximise engagement with policymakers. Submitted abstracts are peer reviewed by stakeholders to ensure content quality and relevance.

Knowledge exchange centres on people exchanging relevant, timely information, research and evidence. PHCRIS accelerates this with Research Profiles, an online searchable database of people interested in research that includes their contact details, research interests and output (eg papers, conference presentations and reports).

PHCRIS resources: Content and usage

Monitoring and evaluation

Ongoing monitoring and evaluation by PHCRIS is based on data collected from a range of sources, such as website statistics and Google Analytics, plus subscriber numbers and behaviour. These data are reviewed on a monthly basis at team meetings. Stakeholder evaluations of resources are also conducted and used as part of the ongoing improvement cycle. Table 1 presents statistics, obtained at the end of September 2015, illustrating current content and use of PHCRIS key resources (further information about content is available at www.phcris.org.au).

Discussion

PHCRIS has established an integrated approach encompassing sharing of information, research and evidence; summarising and synthesising research; building capacity; and facilitating knowledge exchange, in order to accelerate the use of research and evidence in primary healthcare policy and practice. Resources developed to achieve this approach have a strong emphasis on access, quality, relevance and timeliness. This has been achieved through respectful and effective engagement with stakeholders, extensive use of technologies and continuous quality improvement through consultation, monitoring and evaluation.

Does PHCRIS make a difference?

While there is no validated way to measure how stakeholders use the information provided, the high levels of page views and the numbers of delegates attending the PHC research conference each year (Table 1) indicate great overall interest and engagement with PHCRIS and its resources, and also highlight the ability of PHCRIS to make information accessible.

Attribution is not always easy to measure in knowledge exchange, particularly when it relates to facilitating the forming and building of relationships, networks and collaborations, and improving access to information. Similarly, much of what is published is not necessarily cited; rather it is used to inform stakeholders and keep them up to date on relevant issues. As the field of knowledge exchange develops further, and the capacity to measure its impact improves, it is expected that knowledge exchange organisations such as PHCRIS will be able to better communicate the difference they are making.

Strengths

PHCRIS as a knowledge exchange organisation has provided substantial, credible, timely and relevant primary healthcare information, research and evidence to diverse stakeholders over a 20-year period. Funded in a manner that

encourages independent thinking, PHCRIS provides a platform without prejudice or commercial bias. The use of PHCRIS resources and the strong attendances at the annual conference suggest that users value this information.

Limitations

Stakeholders are diverse, ever-expanding and have varying needs. While PHCRIS targets and tailors what it does, there is no room for complacency and it seeks to extend the services provided, especially in more dynamic engagement with stakeholders (eg online forums, webinars and educational interventions). PHCRIS is actively refining its skills and expanding capacity building in knowledge exchange through close interaction with stakeholder partnerships; new technologies are providing opportunities to move this forward.

Conclusion

This paper describes how PHCRIS has used models of knowledge exchange to develop its resources and engagement strategies. It further provides evidence of the use of these resources to demonstrate a level of effectiveness of its contribution to primary healthcare.

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