



## AUSTRALIAN PRIMARY HEALTH CARE RESEARCH INSTITUTE

CENTRE FOR REMOTE HEALTH  
FLINDERS UNIVERSITY & CHARLES DARWIN UNIVERSITY  
MONASH UNIVERSITY SCHOOL OF RURAL HEALTH

# INTERNATIONAL RURAL & REMOTE PRIMARY HEALTH CARE RESEARCH LINKAGE & EXCHANGE REPORT

Stream Four Report: A systematic review of primary health care delivery  
models in rural & remote Australia 1993-2006

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## BACKGROUND

Academic researchers and policy-makers are under increasing pressure to strengthen the link between evidence and policy development.<sup>1</sup> Today the challenge of knowledge transfer must be integral to the researcher's focus on generating new knowledge for the benefit of society. Knowledge transfer refers to the various activities contained in the process of generating knowledge based on user needs, disseminating it, building capacity for its up-take by decision-makers, and finally tracking its application in specific contexts.<sup>2</sup>

A key goal of our visits to Canadian institutions was to better understand the various ways in which actions to promote linkage and exchange among researchers and decision-makers can occur. Use of evidence depends more on factors related to the behaviour of researchers and the receptivity of decision-makers than on the attributes of the research itself.<sup>3</sup> Moreover, the extent of take-up of evidence in policy is conditional on the right predisposition or political and material conditions. A major aspect of uptake of evidence in policy development and practice is contextualising the evidence within the environment in which it is to be used. 'An appreciation of the importance of context often leads investigators to answer that they do not know whether the same intervention will work in a different setting or whether a modified intervention will work in any setting.'<sup>4</sup> For all these reasons, first-hand meetings with Canadian academic researchers and Canadian policy decision-makers were vital in order to identify and evaluate how knowledge translation works in different contexts that may have applicability in Australia.

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<sup>1</sup> Sheldon T. Making evidence synthesis more useful for management and policy-making. *Journal of Health Services Research and Policy* 2005; **10**: 1-5

<sup>2</sup> C Almeida and E Bascolo, 2006: Use of research results in policy decision-making, formulation, and implementation: a review of the literature, *Cadernos de Saude Publica*, Rio de Janeiro, 22 Sup.: SSeven-S19.

<sup>3</sup> Canadian Health Services Research Foundation, 1999: *Issues in Linkage and Exchange between Researchers and Decision Makers*, Ottawa.

<sup>4</sup> JN Lavis, FB Posada, A Haines and E Osei, 200 four: Use of research to inform public policy-making, *The Lancet*, 36 four: 1615.

Our visits provided an invaluable opportunity to analyse knowledge transfer processes through examining the inter-relations between rural and remote health researchers and policy decision-makers in a Canadian environment not dissimilar to that of Australia.

An important aspect was to assess the Canadian university rural health research environment, particularly organisational aspects that are considered important in facilitating knowledge transfer and linkages with health policy organisations<sup>5</sup>. In addition, since effective knowledge transfer is a continuous process in which knowledge accumulates and influences thinking over time rather than a 'one off' event, we were able to reinforce existing Canadian contacts with a view to assessing how effective the linkage and exchange process is becoming.

## FINDINGS

### **OBJECTIVE ONE: To strengthen existing international links with Canadian rural and remote health services researchers through**

- **Presentations of Stream Four research results to rural health researchers and others as a platform for on-going academic and policy interchange**
- **Development of a major comparative international collaborative PHC research proposal**

Our Stream Four study has built on the excellent linkage and exchange process facilitated by Australian Primary Health Care Research Institute (APHCRI) through a number of strategies. Firstly, we convened a national and international reference group comprising 11 recognised experts in aspects of rural and remote health, health economics, consumer issues, evaluation, primary health care (PHC) service provision and policy making at Federal, State and Territory levels. Included in the team were two leading health services researchers from Canada, whose institutions we visited. Secondly, we have presented the results of the study at four significant national conferences as well as to key decision-makers. Lastly, several papers for publication in peer-reviewed journals are in press, in the process of submission or development.<sup>6</sup> The fellowship gave us the opportunity to internationalise and further develop these outputs, and consider possible additional strategies in research translation.

During the fellowship we made 10 formal presentations of our APHCRI Stream Four and Five projects.

This trip also provided an opportunity for us to discuss future potential research with key collaborators in Canada. Currently we are already working on future research projects that emanate from our Stream Four and Five activities – including a three-year evaluation of a comprehensive primary health service in a northern Victorian rural community, and the development of health service benchmarks for small rural and remote communities. The visits allowed us to discuss this work with Canadian counterparts and to identify possible synergies and prioritise these. We were also able to discuss possible funding sources. Dr MacLeod and her team are currently engaged with the regional health authority in jointly developing an evaluation framework for current PHC reform activities. Following our visit and discussions, they will undertake a review of the Canadian literature pertaining to rural and northern PHC models. We have agreed to maintain communication during this review and examine the possibility for collaborative activity which might arise. With Professor Pong we have agreed to draft a framework for a publication related to critical comparative rural health policy issues. There is no single funding source for an international study, but there is the possibility of seeking funding from multiple sources on finalisation of a research proposal.

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<sup>5</sup> J Frenk, 1992: Balancing relevance and excellence: organisational responses to link research with decision-making, *Social Science and Medicine*, 35(11): 139Seven-1 four0 four.

<sup>6</sup> For example, Humphreys J, Wakerman J, Wells R, Kuipers P, Jones J, Entwistle P. 'Beyond workforce': a systemic solution for health service provision in small rural and remote communities. *Med J Aust* 2008 *in press*.

**Objective Two: To test the international robustness of the conceptual framework for sustainable models of PHC services in small rural and remote communities developed in our Stream Four study by presenting the findings to researchers, other academics and health services in Canada**

There was a strong endorsement of the conceptual framework as a useful framework for both health authority decision-makers and researchers. The elements of the framework resonated with decision-makers involved in PHC reform activities. The framework, linking these different elements, provided a vehicle for a systemic and systematic approach to resolving rural and remote health service problems. This systematic approach was strongly endorsed. The framework also highlighted the opportunities for future work such as examination of the change management process, the relationships between jurisdictions with respect to funding, positioning workforce issues within a broader systemic context and evaluation of PHC reform measures.

**Objective Three: To reflect on and develop the APHCRI linkage and exchange process through:**

- **International dissemination of Stream Four research results as the basis for consolidating linkage and exchange between rural health researchers and relevant policy providers**
- **Discussion with leading Canadian rural health and other researchers and policy-makers about how best to maximise effective translation and take-up of research outcomes into the policy and practice arenas, a critical imperative of the APHCRI linkage and exchange process**

**Objective Four: To learn more about the Canadian Health Services Research Foundation (CHSRF) linkage and exchange processes**

The two week linkage and exchange program was intensive. Distances travelled were large, climatic conditions and travelling across different time zones complicated the intensive schedule. Nevertheless, the fellowship underscored the critical role of face-to-face meetings in linkage and exchange. This was not only because of the need to develop links and relationships directly, but also critical in understanding the local context and how this influences PHC service and research activity. In Canada, whilst there are many similar issues, there are important differences discernible during the visit and our discussions. These are useful comparisons for progressing the PHC and research agenda in Australia and include:

- Federal/Provincial relationships and responsibilities for health are different to Australia
- Visiting in winter gave us a better understanding of the real and dramatic difficulties in transportation and access to services in a northern climate
- There is an active, national PHC reform program centred on Family Health Teams – a model of practice that moves away from a GP, fee-for-service model to a multidisciplinary, blended payment model

In relation to the linkage and exchange process, we met with a range of senior university academic staff, key regional health authority staff and many of the staff at CHSRF. We also participated in a PhD student seminar in Sudbury. Researcher-decision maker links in all three sites were strong and influential.

CHSRF is an impressive and arguably unique organisation. The culture is one of self-reflexivity, evaluation, creativity and re-invention. Staff have a clear and common sense of purpose with respect to facilitating the process of research translation, linkage and exchange. The organisation has an impressive range of linkage and exchange activities. These include:

- **EXTRA (Executive Training for Research Application):** is a competitive program for health service executives that offers training in how to better utilise evidence in policy and organisational management

- CADRE (Capacity for Applied and Developmental Research and Evaluation in Health Services and Nursing): is a partnership between the Foundation and the Canadian Institutes of Health Research to develop increased capacity in applied health services and policy research. It is composed of four initiatives designed to address these short- and long-term capacity needs on a regional basis: [CHSRF/CIHR Chair Awards](#), [CHSRF/CIHR Regional Training Centres](#), [Career Reorientation Awards](#) and [CHSRF/CIHR Postdoctoral Awards](#)
- *Mythbusters*: a two-page summary of evidence relating to specific popular misconceptions; for example, that direct-to-consumer advertising is educational for patients
- *Evidence boost*: a quarterly series of two-page research summaries that looks at health care issues where research indicates a preferred course of action in health services management and policy
- 'Listening for Direction': a structured national consultative process for determining CHSRF priority areas
- '*Researcher on call*': open access teleconference which features a researcher and decision-maker in dialogue, with opportunities for questions from participants
- '*Promising practices*': these web publications offer case studies of organisations that have invested in improving their ability to use research

Because, as we have noted above, effective knowledge transfer is a continuous process, this process is dynamic. Staff are encouraged to take risks and look for new strategies to progress the purpose of the organisation with a view to maximising the take-up of research evidence into policy and practice.

## LESSONS LEARNED

A summary of our learnings in relation to facilitators of, and barriers to, linkage and exchange is outlined in Table 1. In summary, major lessons that may be useful to progressing the linkage and exchange process in Australia are:

- 1 CHSRF has played a critical leadership role in driving the diffusion of linkage and exchange strategies in Canada. The organisation has pursued this goal using and developing multifaceted strategies. In the absence of a similar agency in Australia,<sup>7</sup> the linkage and exchange agenda prosecuted by APHCRI is all the more important. Current APHCRI strategies such as 1.3.25 reporting format and the travelling fellowships themselves have been important. APHCRI could further progress this agenda through a number of strategies which include:
  - Maintaining existing strong links with CHSRF and supporting their staff to run workshops in Australia
  - Including travelling fellowships in linkage and exchange activities for subsequent streams of research
  - Involving other research spokes in dissemination of lessons learned from Stream Seven
- 2 The importance of researcher-decision-maker relationships was highlighted in each site. These were built on common purpose and shared values. Trust and respect had been engendered over time, and with high quality commissioned research.

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<sup>7</sup> The National Institute for Clinical Studies (NICS), the Sax Institute, APHCRI and the CRC program all have significant linkage and exchange roles and functions. However, none of these organisations has the breadth of linkage and exchange activity and development across both clinical and population health fields.

In Australia, we need to utilise multiple strategies that target both researchers and decision-makers to engage in this process, recognising that a key ingredient in developing these relationships is on-going interaction over time. A program such as EXTRA is worthy of consideration.

- 3 Multiple modes of disseminating evidence were used by organisations to facilitate the effective take-up of research findings and evidence. For example, Centre for Rural and Northern Health Research (CRaNHR) produces a four-page *Focus* series, summarising its research; *Mythbusters* uses a two-page format, is available on the web and reproduced in the *Journal of Health Services Research and Policy*, and the Canadian Institute of Health Research had a very effective series of posters that briefly summarised research findings, their impact and a brief biography and photo of the researcher.
- 4 Employment of a dedicated 'knowledge broker' to facilitate the research translation process should be considered by research agencies. This could involve managing and producing appropriate written and electronic outputs, including website. At the same time, the expertise of such a person could become an integral component of the academic research formulation and development process, thereby maximising from the outset the value of research undertaken for policy makers and health service organisations.
- 5 Grey literature pertaining to rural and remote health is prevalent in Canada as it is in Australia. CRaNHR is exploring the possibility of establishing a clearing house of relevant reports. It would be useful to have a similar clearing house of non-peer reviewed reports and evaluations in Australia, many of which are not drawn upon because their existence is not widely known. A national organisation such as the National Rural Health Alliance may constitute an appropriate auspicing body to undertake such a role. Existence of a comprehensive repository of 'grey' literature would have significant benefits in ensuring that key reports are drawn upon and incorporated into policy development and also ensure that research is not duplicated unnecessarily.

**Table 1: Linkage and exchange – lessons learned**

Linkage and Exchange component	PRINCE GEORGE, BC		SUDBURY, ONTARIO			CHSRF, OTTAWA, QUEBEC	
	Research environment	Decision Making/Funding Organisations	Research Environment	Decision Making/Funding Organisations		Research environment	Funder
	UNBC	Northern Health	Laurentian University	Sudbury and District Public Health Unit	Ontario Ministry of Health	CHSRF	CHSRF
6 <b>Research activity</b>							
<b>Philosophy Focus Staff composition Approach Relationships</b>	<p>Built around comparative research advantage:</p> <ul style="list-style-type: none"> <li>• Indigenous</li> <li>• Rural</li> <li>• Environmental</li> </ul>	<ul style="list-style-type: none"> <li>• Research a key focus</li> <li>• Well-resourced</li> <li>• Multi-disciplinary teams</li> <li>• Monitoring and evaluation a key issue</li> <li>• Good understanding of PHC</li> <li>• Commitment to PHC reform</li> </ul>	<ul style="list-style-type: none"> <li>• NOMS a key impetus</li> <li>• CRaNHR is a dedicated rural health research centre BUT exists on soft money</li> <li>• Key foci – indigenous, multi-disciplinary, Northern health</li> <li>• PhD program started</li> <li>• Inter-disciplinary and bioprospecting</li> </ul>	<ul style="list-style-type: none"> <li>• RandD division within org'n</li> <li>• Key foci – health promotion, indigenous, environmental</li> <li>• PHRED program – capacity building</li> <li>• Researchers from practice background</li> <li>• Good strategic approach and understanding of PHC</li> </ul>	<ul style="list-style-type: none"> <li>• Underserved area program since 1969</li> <li>• Committed to systemic PHC reform – LIHNs, FHTs, multi-disciplinary retention grants</li> <li>• Internal RandD capacity</li> <li>• Strong relationship with CRaNHR</li> <li>• Understand and fund change management process</li> <li>• Aware of IMG issues</li> <li>• Regional autonomy</li> </ul>	<ul style="list-style-type: none"> <li>• Impressive, strong on evaluation</li> <li>• Creative</li> <li>• Innovative culture</li> <li>• Responsive to external needs</li> <li>• Understands needs of policymakers</li> <li>• Strong external relationships</li> </ul>	<ul style="list-style-type: none"> <li>• Effective national consultation on priorities - 'listening for direction'</li> <li>• Focused, priority driven commissioning</li> <li>• Involvement of decision-makers in merit review and as co-researchers</li> <li>• Devolving grant process to CIHR</li> </ul>

<b>7 Facilitators of Linkage and Exchange</b>							
	<ul style="list-style-type: none"> <li>• Developing research strategy in consultation with Health Authority</li> <li>• Strong relationships between staff of both organisations</li> <li>• Research infrastructure – networks, funding</li> <li>• Shared agenda: improving access for rural and Northern communities</li> </ul>	<ul style="list-style-type: none"> <li>• Strong leadership</li> <li>• Infrastructure to facilitate research</li> <li>• Funding for evaluation</li> <li>• Shared philosophy and values with researchers</li> <li>• Single agenda: improving access for rural and Northern communities</li> </ul>	<ul style="list-style-type: none"> <li>• Well developed relationships with key bodies</li> <li>• Communication and dissemination of research outcomes</li> <li>• PhDs from a practical background</li> <li>• Strong leadership to encourage intra-university linkages</li> </ul>	<ul style="list-style-type: none"> <li>• Strong internal relationships</li> <li>• Strong leadership</li> <li>• Strong infrastructure (RRED Divisions) to facilitate research</li> <li>• Shared philosophy and values with researchers</li> </ul>	<ul style="list-style-type: none"> <li>• Established relationship with CRaNHHR including commissioned research</li> <li>• Strong leadership</li> <li>• Shared philosophy and values with researchers</li> </ul>	<ul style="list-style-type: none"> <li>• Dedicated mandate and endowment to facilitate LandE</li> <li>• Profile and reputation</li> <li>• Extending LandE eg 'researcher on call'</li> <li>• Culture that mandates engagement with researchers and decision-makers</li> <li>• Excellent LandE research with repository of LandE tools</li> </ul>	
<b>8 Difficulties and Barriers and practical steps to overcome them</b>							
	<ul style="list-style-type: none"> <li>• Intra-university linkages need to be better developed</li> <li>• Lack of senior research staff and retention</li> </ul>	<ul style="list-style-type: none"> <li>• Evaluation of outcomes needed quickly, but prepared to resource academics</li> </ul>	<ul style="list-style-type: none"> <li>• Funding sustainability</li> <li>• Organisational change associated with new initiatives</li> </ul>	<ul style="list-style-type: none"> <li>• Prepared to commission local academic research</li> </ul>		<ul style="list-style-type: none"> <li>• Challenge of measuring 'when the job is done' in relation to L and E diffusion</li> <li>• Staff turnover</li> <li>• Evaluation of research impact</li> </ul>	<ul style="list-style-type: none"> <li>• Small amount of funding – highly focused priorities</li> <li>• Devolved much of process to CIHR</li> </ul>