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The Role of Knowledge Networks in Primary Health Care: Key Findings

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This briefing explores the impact of the translation of knowledge into practice and policy in relation to reform in primary health care. The key findings are a summary of the publication **Armstrong, K., & Kendall, E. (2010) Translating knowledge into practice and policy: the role of knowledge networks in primary health care, *Health Information Management Journal*, Vol 39 No 2 2010 ISSN 1833-3583 (PRINT) ISSN 1833-3575 (ONLINE), 9-17.** This paper was also presented at the Inaugural World Health Care Networks Conference in Auckland, New Zealand June 21-24, 2010.

Background

The translation of information into practice is a well-recognised challenge for the health sector and without a system for translating that knowledge into practice and sharing it in a comprehensible form, it will remain meaningless to most practitioners. The establishment of Knowledge Networks provides a promising method for supporting the rapid adoption and generation of health information within the primary health care sector to advance health care services. Local Knowledge Networks would be used as a platform to support a collaborative approach designed to influence health policy and planning, thus driving systematic and institutional change. Knowledge Networks also have the capacity to provide a strategy for the adoption of innovation in health care, positioned at the nexus between research and policy and practice. These networks will be particularly important to the implementation of the national reform agenda, in providing responsive decision-making and the translation of new frameworks into practice. This briefing describes the key findings around how interdisciplinary Knowledge Networks could be established focusing on a number of priority health areas.

Knowledge Translation and Exchange

Demand for primary healthcare services is expected to increase in the future. International research has confirmed that countries with stronger primary healthcare systems, effective models for the management of chronic disease and capacity to address broad systematic determinants of disease, have better health outcomes and lower costs (Starfield & Shi 2007; Swerissen & Taylor 2008). We have also learnt from these international experiences that transformation of evidence is dependent on the presence of key agents of change, the accumulation of collective knowledge of the evidence, the development of critical mass and the full engagement of the clinical and community sectors to drive local activity (Baum 2007;

Dobbins et al. 2009).

Translational research has been described as a two-way interactive process where information and evidence must be translated into practical solutions, but research activity must also reflect the real-world concerns of eventual end-users of research (Anderson et al. 1999). Knowledge translation and exchange can provide greater accountability and evidence-based practice in health planning, policy-making and service delivery (Tetroe et al. 2008). However, there is significant evidence to confirm that the passive dissemination of information, the time delay between knowledge creation and innovation and its uptake in practice is generally ineffective as a way of altering practice or policy. New ways of supporting the adopting of research into practice is required.

Dobbins and colleagues (2009), identified the following **success factors** associated with the uptake of evidence into practice including:

- The capacity to interpret and apply research;
- The development of tailored key health messages based on local issues and information;
- The use of 'language' that is meaningful to the audience;
- The development of trust and positive relationships;
- Promotion of organisational and cultural change and;
- The provision of political and infrastructure support.

Active communication and consultation is also essential to maximise the flow of information as well as the transfer of knowledge. Indeed, most strategies for translation recommend the development of relationships between researchers and end-users and a focus on integrating evidence and information from multiple sectors (Kothari, Birch & Charles 2005; Lomas 2005; Tetroe et al. 2008). Dobbins et al. (2009) identified four **key messages** for those involved in knowledge brokerage and the implementation of knowledge translation strategies. These messages included:

- a) Engaging early with end-users, organisations and projects;
- b) Developing networks as a mechanism to promote interaction and knowledge sharing;
- c) Allowing time for knowledge brokerage activity and;
- d) Placing the evidence within the context of the political/practice environment within and across organisations.

Knowledge Networks Capacity

Knowledge Networks are formal networks that bring together experts from different fields around a common goal or issue (Canadian Health Service Research Foundation, 2005). Knowledge Networks generate collective knowledge in ways that build capacity to apply that information to a practical problem. They drive the development of a practice-relevant evidence base. Membership is usually drawn from several disciplines and provides a social and technical structure that fosters collaboration and knowledge exchange. The Knowledge Networks focus on common issues, build collective knowledge, guide planning and practice innovations and develop solutions to concerns (Scott & Hofmeyer 2007). Knowledge Networks have the capacity to support a shared mandate for advancing primary health care reform in Australia. Knowledge Networks have the potential to develop responsive research and dissemination of health information that can build collective knowledge to advance primary health care reform into the future. By accumulating collective knowledge and critical mass, practical action and evidence-based applications become more likely (Baum 2007; Dobbins et al. 2009).

Knowledge Networks Respond to Local Challenges through:

- Addressing health issues associated with unmet need;
- A united, clear and shared sense of purpose;
- Building capacity to apply information to a practical problem;
- Participatory action approach;
- Supporting inter and trans-disciplinary learning, which enables information to be translated into new and novel ways of managing health care;
- Providing an effective mechanism for disseminating information, increasing the chance of its translation into relevant practices and refining the information gathering process;
- Providing a method of achieving greater research impact in the future

(Baum 2007; Dobbins et al. 2009; Fenton, Harvey & Sturt 2007; Scott & Hofmeyer 2007; Tetroe et al. 2008)

The World Health Organization (WHO) in their commissioned report on the Social Determinants of Health (World Health Organization 2006) used Knowledge Networks as a way of addressing problems of global concern. These WHO networks consisted of members from academia, policy, practice and advocacy throughout the world, drawing on expertise not only from the health sector, but also from disciplines such as social policy, urban development, political science, social epidemiology and gender studies (World Health Organization 2006). Australia's Professor Fran Baum, who was the WHO Commissioner on the Social Determinants of Health strongly advocated for the ongoing engagement of Knowledge Networks to deliver important policy outcomes (Baum 2007). According to Fenton, Harvey and Sturt (2007), the effectiveness of Knowledge Networks will require two major inputs, namely "knowledge (e.g. data, information, ideas/concepts, research and/or awareness) and relationships (e.g. collaborative research groups)". Knowledge and relationships constitute the intellectual and social capital of network members. Knowledge Networks aim to build capital by promoting a culture of innovation, supporting and fostering links between practitioners, and health system managers, policy makers and researchers.

Key Partnership Elements to Support Knowledge Networks include:

- Supportive relationships, which support the paradigm shifts that will be necessary to adopt new models of care (Starfield & Shi 2007);
- Purpose, which is, clear, specific and realistic. As Baum noted, "partnerships are built on overlapping interest that converge on the aim of improving community conditions" (Baum 2007: 235);
- Sufficiently resourced to support the implementation of activity based on the knowledge they generate and translate;
- Commitment is required to system change and network members must see themselves as the precipitators of this change;
- Network must provide an environment that promotes opportunities for discussion, mutual trust and effective engagement with information, resources and research activity.

(Baum 2007; Kalucy et al. 2009; 2006; Starfield & Shi 2007; Tetroe et al. 2008)

Functions of Knowledge Networks

The functions of the Knowledge Networks have been based on the common elements identified in over 60 theories (Graham et al. 2005). This Knowledge-Translation-Action (KTA) cycle takes a planned approach and is represented by the following phases (Graham et al. 2006: 20):

1. Collaboratively identify a problem that needs addressing;
2. Identify, review, and select the knowledge or research that is relevant to the problem (e.g., practice guidelines, research findings, other knowledge databases or repositories);
3. Adapt the identified knowledge or research to the local context if necessary;
4. Assess barriers to using the knowledge in practice;
5. Select, tailor, and implement interventions to promote the use of knowledge (i.e., implement the change);
6. Monitor knowledge use;
7. Evaluate the outcomes of using the knowledge;
8. Sustain ongoing knowledge use.

Ensuring the loop from the generation of knowledge to its successful use in practice is the key goal for health reform and health outcomes for individuals (Graham et al. 2006). Thus, Knowledge Networks must ensure a focus on evidence, cost-effectiveness and accountability. The Knowledge Networks will have relevance at both ends of the Knowledge Network transfer cycle from the generation of knowledge by researchers, to the use of the new knowledge by health system managers, to the successful application of knowledge in practice.

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