Formalised Informality:
An action plan to spread proven health innovations

A position paper prepared for the
New Zealand Ministry of Health
by Jonathan Lomas

The views expressed in this position paper are solely those of the author and represent neither Ministry of Health policy nor the views of those interviewed.

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About the Author

Until 2007 Jonathan Lomas was the inaugural Chief Executive Officer of the Canadian Health Services Research Foundation, a nationally endowed, award-winning organisation founded in 1997 to support evidence-informed decision-making in the health sector.
He has recently retired and is now enjoying all the fishing and walking that Canada offers.

He grew up in Britain and did his undergraduate training in experimental psychology at Oxford University, before arriving in Canada as a Commonwealth Scholar in 1973. His background includes work or training in psychology, health economics, epidemiology, political science and management.

From 1982 to 1997 he was a Professor of Health Policy Analysis at McMaster University in Hamilton, Canada, where he co-founded the Centre for Health Economics and Policy Analysis, an applied research group with a strong emphasis on research dissemination and uptake. He has published two books and numerous articles, and given hundreds of presentations, in the area of health policy and health services research. The main focus of his work, and the area in which he has an international reputation, is the spread of research and innovation to health systems decision-making.

In 2005 he received a Doctorate Honoris Causa from the University of Montreal in recognition of his leadership in linking the work of academic researchers and those managing and delivering health services. In 2006 he was elected a Fellow of the Canadian Academy of Health Sciences and became a Specially Elected Fellow of the Royal Society of Canada.

He has been a consultant to national and provincial governments, as well as providing research and advice to various non-governmental organisations, task forces and inquiries in Canada, the US, UK, Netherlands, France, Australia, and a number of developing countries.

Key Messages

- The spread of proven innovation involves co-ordinating and integrating the three phases of the innovation chain: production/evaluation, dissemination, and adoption.

- The innovation chain is only as strong as its weakest link, so support is needed for activities across all three phases.

- The effective spread of innovation is determined more by inter-personal and inter-organisational interaction than by structures and technology – like rugby, innovation spread is a contact sport.

- Innovations abound, but there is a lack of focus and no co-ordinated evaluation capacity to identify which innovations are worthwhile.

- The focus for an innovation agenda should be performance improvements on the declared health targets of the Ministry.

- A co-ordinated infrastructure for innovation evaluation and spread could emerge from collaborating with the Ministry of Research, Science and Technology on its imminent Health Innovation in Practice initiative.

- More networks and face-to-face exchanges ('formalised informality') will build inter-organisational and inter-personal relational capital to grease the wheels of innovation dissemination.

- Creating a national institute as a clearing-house for proven innovations and to support innovation spread should wait until networks and exchanges have built more relational capital.

- Those working in the system are not knowledgable in how the adoption of proven innovation relies on local application of effective change management principles.

- Short- and long-term training programmes are needed on innovation-driven change management for managers and clinicians.

- The Ministry's new Sector Capability and Innovation Division should take the lead to develop and facilitate the frameworks and opportunities for spreading proven innovations for health.

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Introduction

This report is based on a six-week evaluation of the current environment for the spread of innovation in New Zealand's health system. It was done in the context of a reorganisation of the Ministry of Health designed to better fit the Ministry to the current and future needs of the health system.

The report starts with a general discussion of innovation spread, a definition of its components, and a brief review of what is known about the determinants of effective innovation spread from the research literature.

The second section is a review of the current landscape in New Zealand for the production, evaluation, dissemination and adoption of innovations in the health sector. This section is based on a review of documents and over 40 interviews with individuals from the Ministry of Health, District Health Boards (DHBs) and other external agencies, as well as those in universities across the country (see Appendix A).

The third section is an action plan which identifies gaps and highlights the actions and actors needed to address these gaps for improved spread of innovation in New Zealand's health sector.

1. Innovation spread: what is it and what do we know about it?

Key messages

- Because innovations are characterised by novelty and problem orientation, a barrier to spread is their challenge to the status quo.

- Not all innovations are worthwhile, so evaluation of their worth is crucial.

- Innovation spread has three interdependent elements: production (including evaluation), dissemination and adoption.

- Current research suggests that systems conducive to the spread of worthwhile innovation provide: priority from senior leadership, boundary-crossing intra- and inter-organisational interaction, reflective time, targeted persuasive communication, slack resources, and investments in social interaction – not just structures and technology.

Innovation is generally recognised as desirable and involves at least two important characteristics:

- novelty – a new configuration of behaviours, techniques or resources

- problem orientation – improving the way in which products or services achieve desired objectives.

These two characteristics highlight why it is difficult to get innovation to spread: its novelty challenges the status quo, which makes it the enemy of current practice, and its problem focus leads it into the negative and potentially defensive environment of sub-standard performance. So despite the demonstrated benefits for patients or the community, it's a real challenge to get co-ordinated care for stroke survivors to spread from Canterbury to Waikato, or to transfer the lessons on how to use churches to improve diabetes screening from Auckland to Wellington.

Innovation can, however, be undesirable when it is used as an empty buzz word meaning 'new and exciting'. In this context it tempts managers to over-ride the need for reasonable caution, even scepticism, before subjecting teams, departments or entire organisations to rapid cycles of disruptive change based on premature adoption of the latest unproven fads and fancies. Two recent and calamitous examples, where widespread implementation preceded reassurance that the benefits outweighed the costs, were Vioxx for patients' arthritic joint pain (heart disease deaths outweighed pain relief in the population) and hospital mega-mergers (disruptions of workforce culture outweighed the potential improvements in system cost-effectiveness).

It is useful, therefore, to think of innovation as a continuum that extends from the initial good idea to subsequent best practice (an innovation with a local track record of success), and finally to research-based evidence (best practice with proven generalisable value). Thus, implicit in the term 'innovation spread' are these best practice and research evidence extensions, with evaluation ensuring that innovations are *worth* spreading beyond the confines of their origin, while often extracting their generalisable and non-idiosyncratic characteristics.

Somewhere between the overly eager premature adoption of the novelty freak and the prolonged and painful resistance to change of the laggard lies the optimal response to innovation. Achieving

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the right balance in attitudes, processes, structures and culture is no easy task, especially as these must be calibrated for three phases:

- the *production and evaluation* of a manageable volume of innovation
- the *dissemination* of innovations of proven worth
- individuals' and organisations' capacity to *adopt* proven innovation.

Recent reviews of the research in this area summarise the determinants of a well-calibrated system of innovation production, dissemination and adoption.[1] (A comprehensive graphical and conceptual summary of the determinants from one of these reviews is also provided as Appendix B.) From this research it is clear that systems that produce innovation have:

- commitment to innovation from senior leadership
- tolerance of, and forums for sharing, failure as well as success
- porous boundaries between the ideas and action communities
- incentives and networks for ongoing interaction between innovators, evaluators and implementers
- time set aside specifically for reflection and experimentation by the workforce
- dedicated resources for innovation exploration and development.

The effective spread and dissemination of innovations within and between organisations occurs when attention is paid to:

- potential adopters' needs, and their balance of costs and benefits
- tailoring different strategies to different audiences, as defined by their demographic, cultural and professional characteristics
- messages with compelling imagery, metaphor and anecdote
- the most persuasive channel/s of communication
- the applicability of accompanying evaluative information.

Finally, the adoption of innovation is most likely in organisations that have:

- differentiated and decentralised decision-making
- specialised focuses of professional knowledge in a teamwork environment
- slack resources for new projects
- reflective time for ongoing consideration of implementation issues
- mature structures.

A common element at all levels, and reported in all reviews of the innovation diffusion literature, is the importance of social interaction rather than technical and structural determination. As one reviewer commented:

> *structural determinants ... associated with innovativeness ... account for less than 15 percent of the variation among comparable organizations ... Implementation of a complex innovation ... is socially constructed and frequently contested and must be continually negotiated* (Greenhalgh et al 2004: 605).

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1   See, for instance: Greenhalgh et al 2004; Fleuren et al 2004; Wejnert 2002; Brown and Duguid 2000; Damanpour 1991.

2. Current landscape of innovation production, dissemination and adoption in New Zealand

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Key messages

- Innovations readily emerge in New Zealand's health sector, but the evaluation infrastructure to establish their worth is missing.

- The timing is excellent to create an applied research and evaluation infrastructure through the Ministry of Research, Science and Technology's Transformational Research, Science and Technology strategy.

- There are neither national nor regional venues dedicated to innovation dissemination, but fledgling network support in recently established health target areas is promising.

- Historical, cultural and economic disincentives for inter-organisational collaboration and a lack of relational capital prevent innovation spread and adoption.

- The emerging stability of DHB and primary health organisation structures, central priority for innovation spread from the Ministry of Health and recent ad hoc successes promise an improved environment for innovation adoption.

Production

New Zealand does not seem to fall short in terms of the production of a manageable volume of innovation. Indeed, it can lay claim to international leadership in some areas, such as priority-setting to manage waiting times for publicly funded elective services, Pharmac managing drug expenditures under a fixed budget, and interventions to reduce health inequalities for indigenous peoples.

But not all innovations turn out to be worthwhile: recall the transaction costs of the purchaser-provider contracting policy in the 1990s. It is unfortunate, therefore, that the systems that can convert local innovation to proven best practice (or, even better, fully evaluated research results) are under-resourced. For instance, the only dedicated resource to evaluate DHB-level innovations is the $6.2 million stretched over three years and managed on behalf of DHBs by the Health Research Council. Even this is a one-time contribution from left-over Pharmac funds. Admittedly individual DHBs commit other funds to research and evaluation of practices, as does the Ministry to evaluate its major policies. These, however, are ad hoc and neither signal a long-term, ongoing commitment to an evidence-based culture of innovation nor allow a critical and stable mass of national skill and interest to develop in the area.

It takes time to assemble specialised applied research and evaluation teams, and they cannot be turned on and off like just-in-time inventory. This is particularly true for the applied research and innovation realm, where, in contrast to the more traditional investigator-initiated research world, outputs and activities are already disadvantaged in status by universities focused on international peer recognition more than local system application. Without long-term stable commitments, these teams are unlikely to form and will certainly not last. For instance, despite its internationally celebrated success, lack of stable funding looks like it might bring about the demise of the housing and health team assembled over the last few years at Otago University's School of Medicine and Health Sciences in Wellington.

On the positive side, these and other difficulties are increasingly being recognised at the level of the Ministry. This recognition has emerged from the environmental scan recently completed collaboratively between the Ministry of Research, Science and Technology (MoRST) and the Ministry of Health in preparation for their joint submission on the Health Innovation in Practice portion of the MoRST Transformational Research, Science and Technology (TRST) initiative.

TRST provides an excellent opportunity for the Health Research Council, the Ministry of Health and DHBs to collaborate with MoRST for a substantive new investment in an applied research and development agenda for the health sector. The most promising aspects of this development are the commitment to more stable support for applied research infrastructure, and the clear recognition that it is a joint endeavour requiring partnership between those in the research and evaluation community and those exploring innovative ways of managing and delivering health services.

Dissemination

There is little or no systematic approach to the dissemination of innovation in the New Zealand health system. Without doubt there are islands of excellence, where considerable attention is paid to creating an environment that encourages innovation and dedicates resources to its evaluation and dissemination.

However, the Ministry of Health, with only two exceptions, has no national focus for the development and dissemination of innovations in the health sector. The first exception is the annual Health Innovation Awards, offered jointly with the Accident and Compensation Commission (ACC). However, this year will be the first time these awards involve anything more than a celebratory dinner with presentations. The second exception is the National Health Committee, which over the years has spawned a number of innovative ideas that have led to policy development in New Zealand. However, consistent with its mandate, these are high-level 'policy' innovations, not of much relevance for the more micro-service innovations of a DHB or a primary health organisation (PHO). Furthermore, the National Health Committee currently has no role in dissemination, only in the identification of innovations.

Interestingly, District Health Boards New Zealand (DHBNZ) has many ad hoc venues where innovations could be part of a national agenda, even if it was not the primary objective for the gathering. It organises routine meetings of chief executives, general managers and even clinical leaders. Unfortunately, only the Value for Money and Workforce gatherings appear to have sharing of innovations in service delivery or management as even part of the objectives for the meetings. Even here there is no explicit mechanism or support for dissemination other than the chance communication of ideas from one participant to another.

Associations of clinical leaders and other professional groups such as the Institute for Health Management hold their annual meetings, which sometimes – although by no means routinely – feature innovations of relevance to the health sector. But these are one-off events with no organised follow-up and support for subsequent tailored dissemination.

Universities, particularly the Schools of Public or Population Health and the two main Health Services Research Units (Auckland and Victoria), accept that they have some role to play. However, they understandably argue that they receive no money and have few resources that would enable them to play a national role in helping to disseminate innovation across the system. The funds they receive are nearly all for research and evaluation. The Health Research Council, for instance, is very restricted in the extent to which it can resource itself or universities to do dissemination, especially with uncontested funds. As a result, universities see their main role as helping to evaluate innovations and only occasionally convening interested parties to hear of the results of their work.

It is noteworthy, however, that one unit (Auckland's School of Population Health) is in discussions with a consortium of DHBs for the resources to create an Institute for Health Service Improvement.

At the regional level, the DHBs' shared service agencies are the most obvious venue for sharing innovation, but only the one based in Wellington declares this overtly as a primary goal. Unfortunately, this is more an aspiration than a reality as it and the others' work programmes are swamped by more mundane technical tasks such as data collection and contract monitoring. Nevertheless, a small number of ad hoc initiatives to identify and disseminate innovation in regional or sector-specific services do exist, sometimes directly supported by these agencies and sometimes not. For instance, four DHBs are collaborating on improving Māori health inequalities with support from the Ministry of Health, and six are exploring improved cardiovascular services with support from the Technical Advisory Service (TAS) agency. However, the focus here more often appears to be on co-ordination than on identifying and sharing innovative ways of improving services.

Hence, the current landscape is one of fragmented and partial initiatives that have multiple objectives, of which the dissemination of innovation is usually far down the list.

Looking to the future, however, there is more promise with an encouraging number of fledgling endeavours, most involving the Ministry of Health, with the potential to emphasise and even headline the identification and dissemination of innovation in health services. Both the PHO (jointly with DHBNZ) and Quality Improvement (chaired by Pat Snedden) initiatives of the Ministry and Minister, respectively, offer much potential as vehicles for identifying and disseminating relevant innovation. Both, however, are still in the early stages of development.

Also early in development is the Service Planning and New Health Intervention Assessment (SPNHIA) process. Although this is more related to the geographic deployment and shared funding of capital-intensive health technologies than innovation per se, it does offer the opportunity to role-model sharing evaluation and best practice at the national level.

Finally, champions are just now establishing various networks spawned by the health targets initiative of the Ministry. These have the potential to identify and disseminate innovative ways of meeting the declared targets. To date, however, only the regional cancer networks are advanced enough to offer real short-term potential. The newly created Sector Capability and Innovation Division in the Ministry will provide a focal point and purpose for all of these fledgling developments.

Adoption

The organisational characteristics that encourage and lead to ready adoption of innovation – teamwork with decentralised decision-making, functionally differentiated units, some slack resources, reflective time, and the opportunity to adapt and modify generic principles in the face of local conditions – are not well established in most of New Zealand's health service organisations. Furthermore, the individual characteristics that favour innovation adoption – trust, reciprocity and the other elements of social and relational capital – are not encouraged by the culture and history of health care in New Zealand.

Political oversight discourages risk-taking and engenders the fear of amalgamation, thus discouraging smaller DHBs from collaborating with larger ones. The economic reality of cross-boundary purchasing is also a disincentive to inter-DHB collaboration. Furthermore, the strong sense of local identity discourages adopting anything created and emanating from 'elsewhere'. Finally, the sense of structural instability created by frequent reform of health care's financing and management units in the 1980s and 1990s has only recently abated.

Herein lies the paradox of New Zealand health care and innovation over the last 25 years. On one hand, the Government has led OECD countries in taking risks with innovative macro-health policies involving major restructurings. On the other hand, delivery organisations have been more risk-averse in adopting strategies to address the micro-policy issues of improved service delivery.

All these considerations have lessened the chances – until recently – that innovation adoption will be high on chief executives', and therefore their organisations', priority lists.

Encouragingly, the landscape is noticeably shifting, both politically and structurally. There is emerging stability for DHBs after nearly seven years with no major political changes to their role as the primary population-level delivery organisations. PHOs have matured more quickly than anticipated and have created a sense of worth for the primary health care providers and non-governmental organisations that are central to front-line care. Add to this the Ministry of Health's clear signals recently that innovation is valued and will be supported, and it is clear that the environment is changing. It is, their managers and providers therefore judge, worth investing in exploiting their structures to improve service delivery.

It is in this overall improved environment that a number of ad hoc successes in innovation spread and adoption have emerged. This has especially been the case when at least the following five conditions were in place.

• The Ministry of Health provided clear direction, funding, monitoring and encouragement.

• The size of the problem addressed was such that the inevitable disruption of implementing the innovation as a solution was deemed worth the effort.

• There was a personal or organisational champion willing to persist in spreading the innovation, with tool development and support for interested adopters.

• There was an evaluation component that publicly demonstrated benefit from the innovation.

• Change management principles were used to underpin the spread and adoption strategy.

Three examples illustrate how such *ad hoc* adoption successes occurred when these conditions prevailed. The first is the development and use of clinical priority criteria to manage elective service waiting lists according to need. Although the spread and adoption has taken a decade or more (and, in fact, is still occurring), it has become embedded in the system because the Ministry provided many support and monitoring resources, it persisted, and it involved and eventually acquired ownership by the affected clinicians.

The other two examples fell out of the Ministry's Health of Older People initiative. Primary Options for Acute Care was originally designed by Pegasus Health in Christchurch in 1999 to alleviate the pressure on acute care beds by diverting hospitalisations to community resources. Restorative home support models have similarly spread quickly across DHBs as a response to the pressing need to find non-institutional models for care of the increasingly large older population. This spread followed strong endorsement from the Ministry of Health, a favourable evaluation in the ASPIRE trial,[2] and boosts from a number of personal and organisational champions.

Overall, an environment that is more conducive to innovation adoption is gradually emerging and, with appropriate support and resources, can be further encouraged.

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2   See, for instance, http://www.pss.org.nz/SITE_Default/SITE_Northern/SITE_Enliven_Website/x-files/20747.pdf
    (accessed June 27, 2007).

Table 1: Summary of the Action Plan to Improve Innovation Spread

Identified gap	Activity needed to fill gap	Action lead
1. Innovation is occurring but is not routinely accompanied by evaluation and extraction of generalisable guiding principles for spread.	• Develop a strategy and infrastructure for applied research and evaluation.	• Increased focus and priority for MoRST and the Ministry joint lead (with Health Research Council and DHB Research Fund support) on the TRST agenda for health
2. There is currently no system-wide leadership and priority for innovation in general, or areas of focus specifically.	• Build innovation and evidence-based decision-making into DHB chief executives' performance agreements. • The Ministry should declare that the priority for innovation is performance on the health targets. • Phase in public reporting of DHB (and potentially PHO) performance on targets.	• DHB chairs and boards • Ministry – Sector Capability and Innovation (SC&I) plus Sector Accountability and Funding • Ministry – SC&I plus Sector Accountability and Funding
3. There is a lack of relational capital, opportunities for exchange and personal interaction across and between DHBs, PHOs, the Ministry of Health and universities.	• Encourage and resource national/regional networks (similar to current cancer control). • Support face-to-face regional and national exchanges on health targets (similar to the current PHO initiative).	• Regional Shared Service Agencies and SC&I • SC&I
4. There is a lack of reflective time to create more of a culture of innovation.	• Organise reflective groups for the DHB workforce. • Organise reflective events led by the Director-General for Deputy Directors-General and DHB/PHO chief executives.	• DHBNZ Workforce group • Ministry Director-General's Office
5. There are no explicit national resources that encourage the spread of proven innovation.	• Expand the mandate for the Health Innovation Awards. • Support regionally based knowledge brokers or intermediaries.	• SC&I with ACC • Shared Service Agencies and/or SC&I
6. There are few skilled champions in innovation adoption in DHBs, and little recognition for those that do exist.	• Support clinician and management scientists working in the DHBs. • Provide training in how to use innovation and research adoption as a change management tool.	• Health Research Council with DHB Research Fund (see no. 1 above) • a) Short-term – SC&I in collaboration with DHBNZ's LAMP b) Long-term – SC&I dedicated programme
7. There is no central clearing-house for domestic or international innovations relevant to priorities.	• Establish an external clearing-house and support services.	• University-DHB collaboration (to eventually replace many SC&I roles)

Abbreviations: MoRST: Ministry of Research, Science and Technology; DHB: District Health Board; TRST: Transformational Research Science and Technology; PHO: primary health organisation; SC&I: Sector Capability & Innovation Directorate of the Ministry of Health; LAMP: Leadership and Management Programme.

3. An action plan to spread proven health innovations

Based on the analysis of the landscape in the previous section, Table 1 outlines seven gaps in the current environment for the spread of innovation in New Zealand's health sector. For each gap, the table describes one or more actions and a lead actor or actors for each action. This section expands on the summary table.

Gap 1.
Innovation is occurring but is not routinely accompanied by evaluation and extraction of generalisable guiding principles for spread

Action:

- **Develop a strategy and infrastructure for applied research and evaluation**

Led by Amanda Wiggins in the Ministry of Research, Science and Technology, a Health Innovation in Practice plan will be submitted to its Minister in July 2007 as one of six areas under the Transformational Research Science and Technology (TRST) initiative. This plan is based on a collaborative scoping exercise done with Jesse Hendon in the Ministry of Health under the guidance of Therese Egan. The same plan will be submitted to the Minister of Health later in the winter, with a goal of obtaining funding in the 2008 budget. I had an opportunity to review the plan, which nicely complements an expanded infrastructure in support of applied research, evaluation and dissemination of innovation for the health sector. I also discussed with the Health Research Council the potential for this plan to serve the innovation spread agenda.

Currently missing from the plan are details of implementation – presumably these are to be worked out later if the budget submission is successful. Part of this implementation should incorporate secure, ongoing infrastructure funding for at least one critical mass in the university sector. This critical mass should be funded for both evaluation and dissemination work. A major objective for the evaluation work should be to overcome the inter-regional barriers to innovation spread that arise from the belief that the only things that apply locally are those that are developed locally. This could be facilitated by extracting the generalisable guiding principles from an innovation, and making clear where local adaptation of features will not unduly compromise the integrity and worth of the innovation.

The current Health Innovation in Practice plan under TRST calls for support of clinician (and, I would add, management) scientists working in and potentially jointly funded by DHBs. As part of implementation the idea of joint funding of actual evaluation projects should also be explored with DHBs. Thus a substantive link should be made from this initiative to the Governance Group for the DHB Research Fund chaired by Chris Clarke, as it offers the potential to extend and stabilise the current time-limited $6.2 million DHB research fund managed by the Health Research Council. Issues relating to intellectual property will also need exploring.

Finally, a focus on the health targets of the Ministry of Health should be encouraged, and an overall strategic approach to research and evaluation created which links at least the following:

- the TRST's proposed Health Innovation in Practice plan

- the Health Research Council and DHB Research Fund

- the recently renewed Health Technology Assessment function at Canterbury under Stephen Lungley's management at the Ministry of Health

- the research work being done by the Ministry of Health's Public Health Intelligence Unit under the leadership of Barry Borman and John Wren.

Gap 2

There is currently no system-wide leadership and priority for innovation in general, or areas of focus specifically

Actions:

- Build innovation and evidence-based decision-making into DHB chief executives' performance agreements

- The Ministry of Health should declare that the priority for innovation is performance on the health targets

- Phase in public reporting of DHB (and potentially PHO) performance on targets

With the handful of exceptions noted in the landscape assessment above, DHBs have not shown leadership and priority for innovation. An effective way to encourage this is a three-pronged approach involving DHB boards, the Ministry and the media.

First, the boards of DHBs should be encouraged to incorporate expectations of innovation development and adoption, as well as a commitment to evidence-based decision-making, into the performance contracts of chief executives. As noted in the existing literature on the determinants of innovation spread, senior-level leadership is a critical element.

Second, the Ministry should make clear (as it is already starting to do) that not only is innovation a priority, but that the focus of innovation work and support will at least initially be in the areas specified in its 10 health targets. Unless a clear focus is established, the danger - particularly with the nascent nature of this initiative – is that limited resources to support the innovation agenda will be spread too thinly to be effective. This focus will give the Ministry the ability to say no to politically attractive or demanding but distracting opportunities.

Finally, the Ministry can also signal that over the next 12 to 18 months it will be moving to motivate the spread and adoption of innovations to meet the health targets by working with local media to publicise DHBs' (and potentially PHOs') relative performance on the targets. Without public reporting there is no motivation or imperative for the chief executives to act on the Ministry targets as the initial focus of innovation efforts.

Gap 3

There is a lack of relational capital, opportunities for exchange and personal interaction across and between DHBs, PHOs, the Ministry of Health and universities

Actions:

- Encourage and resource national/regional networks (similar to current cancer control)

- Support face-to-face regional and national exchanges on health targets (similar to the current PHO initiative)

Although some have proposed the immediate development of a UK-style Institute for Innovation and Improvement (formerly the Modernisation Agency) to support the spread of innovation, this would probably be premature in New Zealand. Others have noted during consultations that what is really needed are more venues and mechanisms that can overcome the historical and cultural barriers to cross-boundary and inter-organisational exchange and interaction.

More structures may indeed be premature. The first order of business is to develop the 'relational capital' that would flow from active networks and more focused face-to-face exchanges. These are a precursor to the effective operation of a more formalised institute or agency. This approach is also congruent with the findings from the innovation diffusion literature that a major determinant of effective innovation spread is the social interactions and personal relations between innovators, evaluators and implementers.

A national-level network for exchange between parties interested in innovation could be modelled after the successfully evaluated CHAIN (Contact, Help, Advice and Information Network for Effective Health Care) initiative established in England in 1997 (Russell et al 2004). As the authors of this evaluation point out, CHAIN illustrates 'the role of social interaction and informal dialogue in getting evidence into practice' (p. 1177). Once the backbone of a national network is established, it can be subdivided to serve the needs of those innovating in specific areas, such as the health targets under the guidance of the recently appointed champions. (For the evaluation report on CHAIN, a description of its operation in the context of innovation and improvement in England's National Health Service, and some additional resources on networks, see Appendix C.)

The virtual contact of a CHAIN-like network is not, however, enough on its own to overcome the historical shortfall in relational capital. Additional boosts from face-to-face exchanges will probably be necessary to create and nurture the trust, reciprocity and mutual advantage that will sustain ongoing collaborative behaviour. Such exchanges need to involve not only those working in DHBs, PHOs and other delivery organisations, but also those in the 'ideas community', whether from universities, think tanks or consultancies. Appendix D includes some basic ground rules to guide these exchanges towards truly productive output. These guidelines are necessary to prevent the natural (and unproductive) tendency for such encounters to become didactic exercises in which researchers act like Moses descending from the mountain with tablets of truth to deliver to the great unwashed working in the system.

Gap 4
There is a lack of reflective time to create more of a culture of innovation

Actions:
- **Organise reflective groups for the DHB workforce**
- **Organise reflective events led by the Director-General for Deputy Directors-General and DHB/PHO chief executives**

Nothing drives a sense of importance and status more than a full desk and an incessant flow of urgent demands. Indeed, some would argue that the full waiting room outside the doctor's office is often driven by this motivation more than by any actual patient demand. However, while we have learnt through operations research and patient flow management to alleviate the crowded doctor's waiting room or the over-burdened laboratory, we have not put as much effort into alleviating the manager's crowded desk or the nurse's over-burdened ward.

With no time to reflect on the work we do or the systems under which we operate, it is hardly surprising that new ways of doing things get little attention. When the Ottawa Hospital's nursing service introduced reflective groups in Canada – an hour a month of paid participation in self-declared interest groups – it resulted not only in new ideas for patient care but also improved job satisfaction and nurse retention (see Appendix E). Creating reflective time at all levels in the health workforce will contribute to an innovation agenda. The natural place to address this issue on a system-wide basis is the Workforce group already convened under the auspices of DHBNZ.

Direction from the Ministry of Health can further reinforce the importance of reflective time. Under the leadership of the Director-General, the Ministry can fund and facilitate at least annual, if not semi-annual, reflective one-day gatherings of the Deputy Directors-General, DHB chief executives and other senior influential people from around the system. To ensure productive exchange the numbers involved should not exceed 35 to 40. Further, to prevent them from being disrupted by contentious debate on current controversial issues, the topic for each should be something that will clearly be important in the future but that is not currently pressing. Their facilitation and even organisation should be assigned to an external, neutral body. Minimal time should be given to presentations, with most of the focus on respectful dialogue and exchange. In this way such events not only role-model the importance of reflective time, but also help to build relational capital at senior levels of the system.

Gap 5
There are no explicit national resources that encourage the spread of proven innovation

Actions:

- **Expand the mandate for the Health Innovation Awards**

- **Support regionally based knowledge brokers or intermediaries**

There is currently an implicit assumption that proven innovations will spread of their own accord. For instance, until this year the Health Innovation Awards celebrated local innovation but provided no mechanisms within the award for further evaluation, definition of core generalisable elements that spread beyond the innovation's origin. Even this year the awards are accompanied by no more than a symposium addressing the general barriers and facilitators for innovation spread; there is nothing specific to the winning innovations. In future years an expansion of the awards could include a comprehensive programme of spread, or even recognition of only those innovations for which significant efforts have already been (successfully) made for the spread of the innovation.

The creation and support of the networks proposed under Gap 3 above will help to spread innovation once relational capital and trust are built among members. However, there will probably be no individuals dedicated full time to the task. The creation of regionally based (and perhaps clinical area-specific) knowledge brokers or intermediaries can fill this gap. Zoran Bolevich at the Technical Advisory Service in Wellington has recently adopted this strategy to assist in inter-DHB spread for cardiovascular service innovations in his region.

Such knowledge brokers have proven worthwhile in other jurisdictions too, such as the Scottish Health Executive, the Netherlands and Canada,[3] and were recently recommended for England in the Cooksey review of health research. The characteristics of a knowledge broker include the ability to:

- be entrepreneurial (networking, problem-solving, innovating)

- be trusted and credible

- be a clear communicator

- understand the cultures of both the evaluation and decision-making environments

- be able to find and assess relevant innovation reported in a variety of formats

- facilitate, mediate and negotiate

- understand the principles of adult learning.

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3   See, for instance, van Kammen et al 2006; Lomas 2007.

Gap 6
There are few skilled champions in innovation adoption in DHBs, and little recognition for those that do exist

Actions:

- Support clinician and management scientists working in DHBs

- Provide training in how to use innovation and research adoption as a change management tool

Even with the successful implementation of the 'supply side' of innovation evaluation and dissemination, spread will not occur unless there is a receptive 'demand side' for its adoption. Skills in DHBs will be needed to identify worthwhile innovation, analyse the barriers and facilitators to its incorporation into the local culture, and embed it within an appropriate change management strategy. Ultimately, adoption of an innovation depends on the willingness of affected stakeholders to align their behaviours with a new way of doing things, and achieving this is what change management is all about.

If implemented, the model of clinician and management scientists in DHBs proposed for funding under Gap 1 will reward existing champions of this approach and create new ones. These individuals would not only be funded to see patients or manage a resource area of service, but would also be expected to spend a proportion of their time (say 20 to 40 percent) doing research and evaluation on the problems they encounter in their day-to-day work, and working at implementing the implied changes. They may receive some support from the regional knowledge brokers proposed under Gap 5.

However, innovation spread will be accelerated by equipping a larger proportion of those managing services within DHBs with these change management principles, especially at the senior levels. Unfortunately, the current Leadership and Management Programme (LAMP) organised under DHBNZ does not focus on this kind of skill set. The integration of a module with this focus into the LAMP initiative is a pressing need. As an interim step, perhaps the current 15 self-directed learning guides on *Building Improvement Capability*, created and distributed by England's Institute for Innovation and Improvement,[4] could be made more readily available to DHBs, with incentives for completion. The 15 guides are divided into the three theme areas of general improvement skills, process and systems thinking, and personal and organisational development.

In the longer term, the Ministry of Health should develop a senior-level training programme for New Zealand health service executives and clinicians focused on how to use research, evaluation and innovation as a change management tool to improve service quality and delivery in the health sector. Such a programme already exists as a model in Canada (see Appendix F).

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4   See: website of the Institute for Innovation and Improvement under *Building Capability* tab:
    http://www.institute.nhs.uk/building_capability/building_improvement_capability/improvement_leaders%27_
    guides%3a_introduction.html

Gap 7
There is no central clearing-house for domestic or international innovations relevant to priorities

Action:
- **Establish an external clearing-house and support services**

As stated earlier, there is little value in creating a major national structure to support the spread of innovation in the short term. This requires the prior condition of improved relational capital and inter-organisational trust. However, assuming that these will emerge from the efforts made under Gap 3, the long-term goal is to support the evolution of an infrastructure outside the Ministry of Health that can act as a clearing-house for both domestic and international innovations relevant to the priorities of New Zealand's health sector.

Given the limited human and institutional capital available within New Zealand for this task, it would not be fruitful to pit the handful of centres against each other. A collaborative (perhaps hub-and-spoke) model that allows all available resources to play a role is preferable. The Auckland Health Services Research and Policy Centre under Paul Robinson is perhaps the most advanced in thinking about this hub role, with support from Peter Carswell in the School of Population Health.

Acting as an effective clearing-house will require strong skills in literature searching, systematic review, and synthesis of both the domestic experience and the international research. Again looking for efficiencies, this should be considered in conjunction with both the current Health Technology Assessment role in Canterbury and the Evidence-based Healthcare Group in ACC, both of which make extensive use of these skills.

Initial thinking for such an infrastructure should be incorporated into the strategic plan outlined under Gap 1 for the TRST initiative with MoRST. The clearing-house role could grow out of the beginning work on evaluation outlined for the critical mass infrastructure under Gap 1. Over the next three to five years it could incorporate some or all of the training programmes for innovation-based change management outlined under Gap 6, provide other support resources as demands arise, and eventually take over many of the support and facilitation roles developed initially within the Sector Capability and Innovation Division of the Ministry of Health; for example, facilitation roles for the national and regional networks outline under Gap 3.

Investment in a fully developed formalised institute (such as the one already in place in England, see footnote 4 above) should, however, proceed cautiously. As was argued above under Gap 3, before such an institute can operate efficiently there needs to be much improved relational capital and trust across the health service organisations and regions of New Zealand.

Conclusion

Activities to address each of these seven gaps will do much to advance the innovation spread agenda in New Zealand, and will involve many organisations both inside and outside the Ministry of Health. However, they will need co-ordination and integration to maximise their effectiveness. Thus there is a lead role for the Sector Capability and Innovation Division in the Ministry, acting as a facilitator and co-ordinator, to ensure that integration and synergy across activities leads to the impact of the whole being greater than the sum of its parts.

Appendices

A: List of individuals interviewed

B: Conceptual summary for the determinants of innovation spread

C: Networks

D: Ground rules for productive face-to-face exchanges between researchers and decision-makers

E: Reflective groups at the Ottawa Hospital, Canada

F: The EXTRA programme: Executive Training for Research Application

Note: If you are viewing these appendices electronically you will be able to connect directly to any of the URL web addresses listed in them by positioning your cursor over the address and simultaneously pressing the control key and clicking on the left mouse button.

Appendix A:
List of the individuals interviewed

Ministry of Health

Sponsors: Stephen McKernan, Margie Apa

Deputy Directors-General: Kathy Spencer (Sector Policy), Colin Feek (Clinical Services), Geraldine Woods (Disability Services), Teresa Wall (Māori Health)

Advisors: David Galler (Chief Medical Advisor), Sandy Dawson (Chief Clinical Services Advisor), Mark Jones (Chief Nursing Advisor), Pat Tuohy (Chief Advisor, Child and Youth Health), Jim Primrose (Chief Advisor, General Practice), John Childs (Chief Advisor, Cancer Services)

Others: John Baird (primary health care), Andrew Holmes (guidelines and waiting times), Gillian Durham (history and public health), Gabrielle Baker (Māori health) Stephen Lungley (research), Therese Egan and Jess Hendon (strategic policy, ethics and innovation), Amanda Wiggins (advisor in MoRST)

District Health Boards

Chairs: Pat Snedden (Counties Manukau)

Chief executives and general managers: Chris Clarke (Hawke's Bay and Chair of DHB Research Fund), Chris Mules (Counties Manukau)

Others: Julian Inch, Kim Arcus (DHBNZ), Zoran Bolevich (TAS, Shared Support Service), Sam Cliffe (Northern DHB Support Agency)

External bodies and universities
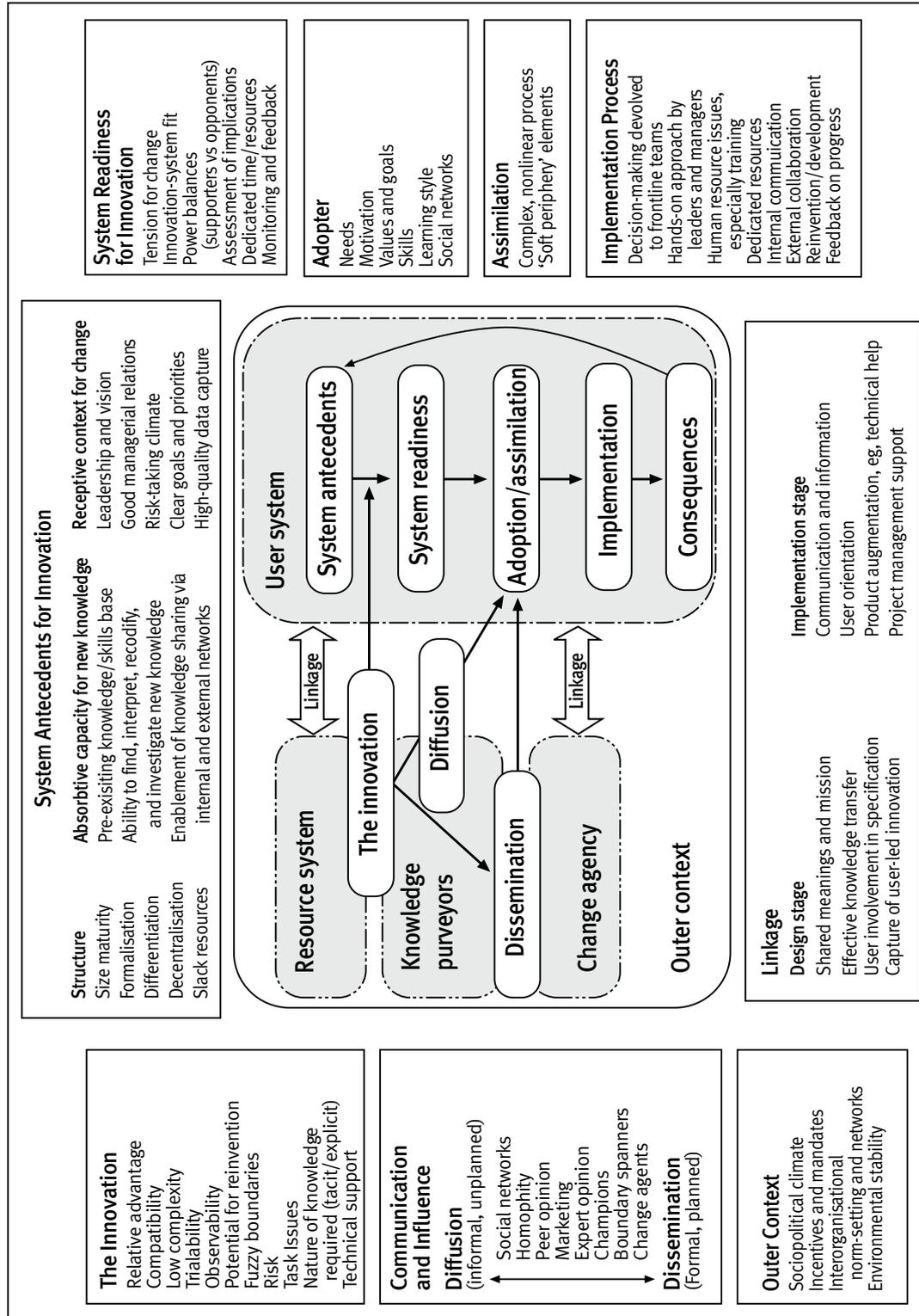
External bodies: Ron Paterson (Disability Commissioner), Jackie Fawcett, Patricia Logan (ACC), Robin Olds, Aroha Haggie (Health Research Council, DHB Research Fund)

Universities: Philippa Howden-Chapman, Peter Crampton (Otago, Wellington), Jackie Cummings (Victoria, Wellington), Neil Pearce (Massey, Wellington), Peter Carswell, Peter Davis, Paparangi Reid, Alistair Woodward (Auckland)

Appendix B:
What determines whether an innovation will spread?

Conceptual Model for Considering the Determinants of Diffusion, Dissemination, and Implementation of Innovations in Health Service Delivery and Organisation, Based on a Systematic Review of Empirical Research Studies.

System Readiness for Innovation
Tension for change
Innovation-system fit
Power balances
 (supporters vs opponents)
Assessment of implications
Dedicated time/resources
Monitoring and feedback

Adopter
Needs
Motivation
Values and goals
Skills
Learning style
Social networks

Assimilation
Complex, nonlinear process
'Soft periphery' elements

Implementation Process
Decision-making devolved
 to frontline teams
Hands-on approach by
 leaders and managers
Human resource issues,
 especially training
Dedicated resources
Internal communication
External collaboration
Reinvention/development
Feedback on progress

System Antecedents for Innovation

Structure
Size maturity
Formalisation
Differentiation
Decentralisation
Slack resources

Absorbtive capacity for new knowledge
Pre-exisiting knowledge/skills base
Ability to find, interpret, recodify,
 and investigate new knowledge
Enablement of knowledge sharing via
 internal and external networks

Receptive context for change
Leadership and vision
Good managerial relations
Risk-taking climate
Clear goals and priorities
High-quality data capture

User system
System antecedents
System readiness
Adoption/assimilation
Implementation
Consequences

Resource system
The innovation
Knowledge purveyors
Diffusion
Dissemination
Change agency
Outer context

Linkage

Linkage
Design stage
Shared meanings and mission
Effective knowledge transfer
User involvement in specification
Capture of user-led innovation

Implementation stage
Communication and information
User orientation
Product augmentation, eg, technical help
Project management support

The Innovation
Relative advantage
Compatibility
Low complexity
Trialability
Observability
Potential for reinvention
Fuzzy boundaries
Risk
Task Issues
Nature of knowledge
 required (tacit/explicit)
Technical support

Communication and Influence
Diffusion
(informal, unplanned)
Social networks
Homophily
Peer opinion
Marketing
Expert opinion
Champions
Boundary spanners
Change agents
Dissemination
(Formal, planned)

Outer Context
Sociopolitical climate
Incentives and mandates
Interorganisational
 norm-setting and networks
Environmental stability

Source: Greenhalgh et al 2004

Appendix C:
Networks

1. BMJ Evaluation of CHAIN – Contact, Help, Advice and Information Network

2. CHAIN's Innovation and Improvement Network

3. Network resources

1. Information in practice: Soft networks for bridging the gap between research and practice: illuminative evaluation of CHAIN

Source: *BMJ* 2004; 328:1174. URL: http://www.bmj.com/cgi/reprint/328/7449/1174

Jill Russell, *lecturer,* **Trisha Greenhalgh,** *professor,* **Petra Boynton,** *lecturer,* **Marcia Rigby,** *project manager,* Department of Primary Health Care, University College London, London N19 5LW

Objectives: To explore the process of knowledge exchange in an informal email network for evidence-based health care, to illuminate the value of the service and its critical success factors, and to identify areas for improvement.

Design: Illuminative evaluation.

Setting: Targeted email and networking service for UK health care practitioners and researchers.

Participants: 2800 members of a networking service.

Main outcome measures: Tracking of email messages, interviews with core staff, and a qualitative analysis of messages, postings from focus groups, and invited and unsolicited feedback to the service.

Results: The informal email network helped to bridge the gap between research and practice by serving as a rich source of information, providing access to members' experiences, suggestions, and ideas, facilitating cross-boundary collaboration, and enabling participation in networking at a variety of levels. *Ad hoc* groupings and communities of practice emerged spontaneously as members discovered common areas of interest.

Conclusion: This study illuminated how knowledge for evidence-based health care can be targeted, personalised, and made meaningful through informal social processes. Critical success factors include a broad-based membership from both the research and service communities; a loose and fluid network structure; tight targeting of messages based on members' interests; the presence of a strong network identity and culture of reciprocity; and the opportunity for new members to learn through passive participation.

2. CHAIN Innovation and Improvement Network

Source: Institute for Innovation and Improvement: http://www.institute.nhs.uk/share_and_network/ chain_3_introduction/chain_3_%e2%80%93_innovation_and_improvement_network.html.

CHAIN 3 is a contact and mutual support network for members of staff involved or interested in innovation and improvement in health care.

History: The first CHAIN was established as part of the NHS Research & Development programme in 1997, and membership of CHAINs 1 (Evidence-Based Practice) and 2 (Work-Based Learning) exceeds 4000. In addition to the NHS Institute for Innovation and Improvement, CHAIN stakeholders also include the Department of Health and the Health Foundation.

Membership: CHAIN 3 has over 900 members and provides a rich pool of contacts, who share an interest in innovation and improvement from the widest possible range of organisations and professions with a locus in health and social care. Membership is free. As a member you will benefit from access to all of the online CHAIN directories, enabling you to identify and make direct contact with other members as you please.

As a CHAIN 3 member you can choose to join one of the following sub groups: No Delays, Health Care Acquired Infection, Long Term Conditions, Improvement Educators, Lean Thinking, HR & OD.

CHAIN members usually work with a CHAIN facilitator to use the network for a wide range of purposes in the context of innovation and improvement, such as raising queries, generating interest in a particular issue, or disseminating and testing ideas.

Members will not, however, be bombarded with unwanted emails. Tight targeting ensures that CHAIN members receive only messages that are highly relevant to their individual fields of interest.

CHAIN is therefore not like a notice-board, chat-room or discussion forum, but works on the basis of occasional, well-targeted 1:1 email messages about things of particular interest to individual members. (The average number of targeted messages each member receives per year is around 20.)

Joining CHAIN is free and takes only a few minutes, and you may withdraw from the network at any time. Simply complete the online joining form: http://chain.ulcc.ac.uk/chain/join_chain3.html.

If you have any questions, contact rosanna.breen@institute.nhs.uk or david.evans@chain-network.org.uk.

3. Network resources

Source: Canadian Health Services Research Foundation's *Network Notes* series:

http://www.chsrf.ca/knowledge_transfer/networks_e.php

Network Notes I – What's All This Talk About Networks?	PDF – 1.31 MB
Network Notes II – Knowledge Networks	PDF – 106 KB
Network Notes III – Communities of Practice	PDF – 100 KB
Network Notes IV – Governing Sideways: Guidelines to Network Governance	PDF – 82 KB
Network Notes V – Managing for Innovation	PDF – 98 KB

Appendix D:
Ground rules for productive face-to-face exchanges between researchers and decision-makers

Source: Canadian Health Services Research Foundation. URL: <u>http://www.chsrf.ca/knowledge_</u> <u>transfer/pdf/exchange_note_1_e.pdf</u>

Exchange Note I: Making 'linkage and exchange' work (www.chsrf.ca)

How to organise a successful meeting between researchers and decision-makers

Always remember these fundamental elements:

Purpose Value Interaction Content Experience

Before the event

- Keep the topic area manageable and have a clear goal in mind.

- Choose timely and relevant themes.

- Do not be afraid to keep your numbers small or limit participation.

- Invite the right people: researchers skilled at communicating with diverse audiences and using plain language; decision-makers actively engaged in the topic of the exchange.

- Most importantly, invite people ready and willing to collaborate.

- Talk to presenters/participants before the event to ensure they are not merely presenting their own point of view or research findings; rather, they must offer a window into a bigger world of ideas and possibilities.

- Preparatory materials should be succinct, to the point, and distributed far enough ahead of time to be fully reviewed by the recipients.

- To facilitate in-depth discussions, collect input on specific issues from invitees, then synthesise and share with participants prior to the event.

- To encourage productive networking, prepare briefing materials that include biographies, photos, and other relevant information about attendees and participants.

- Location can have a significant impact on a meeting. Consider where participants are travelling from and whether the location is appropriate to the issue being discussed and for minimising time away from home. Choosing settings that feel more 'personal' can have a strong, positive impact.

During the event

- Encourage decision-makers to set the agenda by presenting their issues first.

- Encourage researchers to 'exchange with' decision-makers rather than 'talk at' them.

- Actively facilitate connections among participants through structured activities and targeted introductions throughout the event.

- Discussions should follow a policy of non-attribution to preserve privacy and encourage a safe space for interaction.

- Always offer ample networking periods during lunchtime and breaks.

- Consider added touches, like specialty or local treats such as a cappuccino bar.

Next steps

- Take the time to collect and summarise key messages.

- Evaluate — Did you meet your goals? Did the participants get what they came for?

- Take advantage of positive momentum at the end of the meeting to discuss clear action items and realistic next steps — then be sure to follow through!

Appendix E:
Reflective groups at the Ottawa Hospital, Canada

Reflective groups tackle nursing issues at the Ottawa Hospital
Ginette Lemire Rodger and Chantal Mercier

The Ottawa Hospital is using a 'group mentality' to share information and collaborate on best practices in the nursing field. In an effort to bring together nursing research and policy, Chantal Mercier, the corporate co-ordinator of nursing research, and Ginette Lemire Rodger, the vice-president of professional practice and chief nursing executive, created the Ottawa Hospital's 'reflective groups'. Groups consist of clinical nurses, researchers, academics and nurse educators. Set up in May 2004 and composed of about a dozen leaders each, the groups meet monthly to study and share the research on specific challenges faced by the nursing field. Five teams have been formed in the areas of health literacy, patient/nurse interaction, qualitative research methods, impact of head injury or delirium on families, and implementing best practice guidelines.

'The members of the reflective groups have a professional or personal interest in pioneering their areas of interest,' says Mercier. 'And each group has the flexibility to mould its own objectives, depending on its needs.'

Reflective groups provide a forum for nurses and other health professionals with a common interest in an area of nursing to engage in discussion, networking, peer support, information sharing, and/or projects. The mandate is to stay at the leading edge of knowledge in the area of interest for the group and become the 'brain bank' on their topic. There is an emphasis on evidence-based policy, and the groups also evaluate the level of evidence in their research. In the longer term, the groups will develop proposals and recommendations for the Ottawa Hospital, update research literature, and request funding for new projects relating to their respective topic areas.

'The reflective groups are quite organic in nature,' says Mercier. 'There are no restrictive guidelines or agendas. The groups are free to discuss the topics and establish their own unique goals, then report on any action items.' This way, says Mercier, the innovative, think-tank nature of the groups remains intact, while an annual reporting structure ensures the groups remain accountable to their goals. The result is a novel approach to problem-solving within health services specific to nursing that bridges research and policy.

For more information about the Ottawa Hospital's reflective groups, please contact Chantal Mercier at CMercier@ottawahospital.on.ca.

Appendix F:
The EXTRA programme – Executive Training for Research Application

Source: Canadian Health Services Research Foundation.
URL: http://www.chsrf.ca/extra/index_e.php

About EXTRA

Overview and benefits

As one of the Foundation's flagship programmes, the Executive Training for Research Application (EXTRA) programme develops capacity and leadership to optimise the use of research evidence in managing Canadian healthcare organisations.

EXTRA gives health system managers across Canada the skills to better use research in their daily work, as a way to increase evidence-informed decision-making in the health system.

The EXTRA programme targets health service professionals in senior management positions – nurse executives, physician executives, and other health administration executives.

Since 2004 and until 2014, up to 24 fellows are accepted annually in the two-year EXTRA training programme. Spread over four away-from-home residency sessions which incorporate six curriculum modules, the fellowship experience offers:

1. knowledge of research evidence (its existence, location, and relevance/application)

2. the capacity to draw on 'system thinking'

3. development of collaborative professional relationships

4. the ability to introduce and manage evidence-informed change.

The EXTRA call for fellowship applications is launched in October and the competition closes on March 1 every year. All applicants must adhere to the Foundation's conflict of interest policy.

Programme benefits

EXTRA is designed to have short-term and long-term impacts at three levels: on the fellows themselves, on their organisations, and on the overall health care system.

Professional development

- Gain the skills to find, assess, and apply research to become more effective at evidence-informed decision-making - knowledge and skills that will serve you throughout your career.

- Use research, data, and information with greater confidence.

- Collaborate with colleagues from across the country and across disciplines to acquire skills in evidence-informed decision-making in the management of health systems, learning from diverse health care settings.

- Gain exposure to the forefront of today's health care management issues, and gain comparative and international perspectives with access to top-flight faculty, recognised experts, and guest lecturers from Canada and abroad.

- Play a leadership role in your organisation and help create an evidence-informed decision-making culture.

- Communicate and teach the skills needed for improved use of research in the management of health care organisations.

- Develop collaborative working relationships that go beyond the formal EXTRA programme and take part in an emerging community of practice.

- Earn a programme diploma conferred by the Canadian Medical Association (CMA), the Canadian College of Health Service Executives (CCHSE), the Canadian Nurses Association (CNA), the Canadian Health Services Research Foundation, and the Agence d'évaluation des technologies et des modes d'intervention en santé (AETMIS); qualify for a CCHSE fellowship designation and CCHSE Maintenance of Certification Level 1 credits; and accrue continuing medical education credits through EXTRA. Additional credentials, including university credits toward graduate degrees, are under consideration.

Organisational performance

- Benefit your organisation with use of research to improve health care delivery, innovation, and cost-effectiveness.

- Create a culture of evidence-informed decision-making; share your new skills with colleagues and accelerate change in the organisational culture.

- Bring new ideas and knowledge into your organisation through interaction with peers from diverse health care settings and disciplines.

- Assess your organisational performance and benchmark against best practices of other organisations and regions across the country.

Health system benefits

- Improve the overall quality and effectiveness of the Canadian health care system through better decisions, supported by evidence from research.

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