***FROM EVIDENCE* TO ACTION**
FINAL REPORT

(Short version)

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1. Summary of project activities

1.1. Phase 1

Consultations, interviews and focus groups were held in all Manitoba regional health authorities (RHAs). The purpose of these consultations was: a) to present information on the project and establish the communication framework needed to support it; and b) to explore perspectives of RHA planners and decision-makers on the nature of evidence in healthcare decision-making at the organizational level, and the barriers to EIDM. Between November 2005 and April 2006, a total of seventeen focus groups and 53 individual interviews were conducted, for a total of 205 participants. A full report, entitled *From Evidence* to Action: Report of Phase 1 Activities is available in Appendix A.

1.2. Phase 2a

Key activities included collaborative development, review and follow-up of utilization of six tools intended to promote and assist the use of evidence in regional health authority decision-making. Individual semi-structured interviews (43) and advisory group discussions (3) were conducted to gather data concerning how the tools were being used and participants' suggestions for improving them. A full report, entitled *From Evidence* to Action Research Activity Report-Phase 2a: Tool Development is available in Appendix B.

1.3. Phase 2b

During ongoing evaluation of the tools produced in Phase 2a, it was apparent that it was not possible to negotiate opportunities to trial the tools within the regions. Key factors were related to the position of NTK team member within their organization and interest from other organizational decision-makers in the face of many other conflicting, and more pressing, issues. As a result, the research team reconsidered whether a toolbox was the most useful and they moved instead to investigate alternate ways of supporting processes that would facilitate evidence use within RHAs. The project was split into two components, the Winnipeg Regional Health Authority (WRHA) component and the Rural/northern component, consisting of the other nine Manitoba RHAs. The activities and findings of these two components are described separately. Two separate reports, entitled Evaluation of the WRHA 2008 New Initiatives Review Process and *From Evidence* to Action Research Activity Report-Phase 2b: Rural and Northern Component are provided in Appendix C and Appendix D.

1.3.1. WRHA component

Using Evidence in Priority Setting. A collaboration between three groups within the region with a mandate for promoting use of evidence in planning (EXTRA fellows, WRHA Research and Evaluation Unit, and participants in the Royal Roads Leadership program), identified priority areas for promoting organizational innovation in using evidence. It was

agreed to align research activities with ongoing organizational activities and priorities. Integration of evidence with priority setting processes, specifically the New Initiatives (NI) was selected as the first activity. Objectives of the revised NI process were to make priority setting a) more fair and transparent, b) more evidence-informed (support and facilitate appropriate use of evidence) and c) integrated from a regional perspective in terms of planning. Ethics-based criteria were integrated with guidelines for integrating and evaluating evidence in the categories of health burden (the importance of the problem), health gain (evidence for effectiveness of the proposed solution), access, appropriateness, consultation, evaluation and innovation and partnerships. Using an action evaluation research approach, the research team participated in planning, developed tools to support evidence use, and undertook a comprehensive utilization focused evaluation of this initiative to improve organizational planning processes, and associated tools. This evaluation included: a) Participant and non-participant observation of New Initiative planning meetings; presentations to programs, planning days, and executive; educational sessions, and proposal review committee meetings, b) Process documentation; c) Content analysis (project communication, briefing notes, submitted proposals, scoring sheets, evaluation forms from NI planning day), d) Semi-structured interviews with staff and executive involved in the review process (n=16), and e) Anonymous on-line survey for both reviewers and submitters.

1.3.2. Rural/northern component

Key activities included individual semi-structured interviews (40) and focus group interviews (7) to gather data used to develop a model of the use of evidence in RHA decision-making case studies, to develop a framework for an education module aimed at RHA board members, to evaluate the impact of a trial of health library services for rural decision-makers and to conduct a final evaluation of the impact of the tools developed in Phase 2a. Ongoing evaluation included presentation and discussion with The *Need to Know* Team members who participated in the planning, interpretation and analysis of the data collected.

2. Results

2.1. Summary of Phase 1 Findings

Phase 1 research activities provided some unique insights on RHA decision maker perspectives in two main areas:

- The nature of evidence and use of evidence in decision-making, and
- Barriers to evidence-informed decision-making in RHAs.

Although there was almost universal support in principle for the importance of using evidence in decision-making, there was little consensus among participants on what evidence is, what kind of evidence is most appropriate, and how “using evidence” can best be demonstrated. Evidence-informed decision-making at the organizational (planning/policy) level was poorly understood. In

addition, in spite of the strong support in principle for the importance of using evidence in decision-making, it was commonly assumed that only “research” should be used as evidence. This assumption, combined with an understanding of the limited research available to guide key decisions facing the healthcare system and the need for “context-sensitive” evidence, led to a clear message of caution around the concept of “evidence-informed” decision-making. Participants highlighted the need to develop a shared vocabulary around the concept of “evidence”.

Many different sources of evidence, commonly used in planning, were identified. However, there was a significant range in perspective among RHAs, as well as between individuals of the same RHA, as to the extent that evidence is currently being used. Commonly, evidence was defined simply as quantitative data, which has the effect of privileging some health areas (e.g. health services with already established data collection systems) over others. Confusion between “evidence-informed” and “data-driven” decision-making was identified. The potential role of program evaluation as a source of evidence was rarely mentioned. There was also significant cynicism about use of “evidence” in the political decision-making context. While it was clear that using evidence was an expectation, it was also commonly acknowledged that evidence could be “gamed”.

Participants readily identified a number of barriers affecting use of evidence in planning and decision-making barriers at the practice, program and policy level. Many of these barriers were consistent with those identified in the Knowledge Translation literature and through initial assessment activities undertaken by The Need to Know project: time, resources, leadership, organizational factors (e.g. organizational culture, authority to make change, competing and conflicting demands, lack of information and timeliness of data, resource availability, appropriate structure for supporting EIDM, and lack of knowledge, education). However, although there was mention of key themes identified in the Knowledge Translation literature (e.g. addressing the gap between the group that does the research and the group providing patient care; lack of relevant data, need to “translate” information into lay language, need for greater research capacity) these were relatively minor themes in the overall consultation. Rather, the focus was on the organizational culture, structure and processes (including workload) and the politicized context of decision-making.

Although there are some similarities, these perspectives differ in important ways from the perspectives of the academic community. In addition, analysis of consultation data across all 11 regions allowed “drilling down” into these issues, providing additional insight into the complexity and varied components within each of the barriers identified. If strategies to increase evidence-informed decision-making in these settings are to be effective, they must recognize and reflect the experience and perspectives of decision-makers, as well as the practical barriers they face on a day-to-day basis.

2.2. Reorientation of project activities

Project objectives and activities were reoriented according to findings from Phase 1. Table 1 shows the original and revised objectives. Following Phase 1, emphasis changed from the development of a tool to assess barriers to EIDM to the development of a set of tools to support EIDM. The project was reoriented

again when it became apparent that continuing collaborative development of a toolbox was less useful than further investigation of alternate ways of supporting evidence in RHA decision-making.

Table 1: Original and revised project objectives

Original	Revised
1. Develop a collaboratively-created tool designed to assess barriers to evidence-based planning and decision-making in RHAs, and organizational strengths and limitations in research utilization and knowledge translation.	Develop collaboratively-created tools to support evidence informed planning and decision-making in RHAs, based on needs identified in consultation phase. *Comment: This "toolbox" may include organizational assessment instrument(s).*
2. Apply the co-created tool in all RHAs within the province of Manitoba.	Make available for implementation this tool box in all RHAs within the province of Manitoba.
3. Evaluate the effectiveness of this tool across RHAs with varying characteristics (e.g. size, urban/rural/remote characteristics, organizational structure).	Evaluate the effectiveness of this toolbox in all of the RHAs, making note of any differences in usefulness across RHAs with varying characteristics (e.g. size, urban/rural/remote characteristics, organizational structure) This objective was further modified in Phase 2b to: investigate alternate ways of supporting evidence within RHAs.
4. Collaboratively develop and implement priority interventions to address identified barriers.	Collaboratively develop and implement strategies to address identified barriers.
5. Assess the effectiveness of specific strategies to address identified barriers, across RHAs with varying characteristics.	Assess the effectiveness of these strategies to address identified barriers. *Comment: many of these strategies may be undertake jointly by RHAs to address some of the external barriers*.
6. Produce user-friendly resources for use by other RHAs and health districts across Canada.	Unchanged.

2.3. Summary of Phase 2 Findings

2.3.1. Phase 2a

Six tools were developed according to NTK team members' prioritization of need and modified in response to their feedback to drafts prior to distribution via NTK team members to regional health authority staff. An additional two tools, developed externally, were recommended by project staff for inclusion to the toolkit. In spite of advisory group approval to trial and agreement to report on utilization of tools developed, uptake of tools at the regional level was generally poor and there was insufficient

utilization to proceed with the plan of making further adjustments to the individual tools in response to user feedback.

Although initial feedback to presentation of the tools was positive, the tools were rarely used beyond this point except for the Briefing Note (BN) tool. During telephone interviews to monitor utilization, NTK reps remained personally committed to the project but did not feel that they had sufficient time or the authority to do what they feel needs to be done with regard to implementation however, there was an indication that a longer period of time was needed to adequately implement and assess the impact of the tools.

In the final evaluation of the tools (Dec.08/Jan 09), utilization remained low with almost all tools being judged poor in terms of their rate of use. In this final analysis, the barriers to tool use were similar to earlier evaluations that led to re-assessment of the usefulness of the team's original proposal that a tool-box would be effective. They included: insufficient time to implement, low relevance, too academic and not practically oriented, not sufficiently customized to meet local need.

The Briefing Note template tool was the most successful of the tools developed and was used regularly by six of the nine RHAs who participated in the final evaluation; three of which reported a fairly high rate of use and a high level of satisfaction with the impact of using the tool on promoting the use of evidence for decision making within their regional health authority.

2.3.2. Phase 2b WRHA component

Using Evidence in Priority Setting. Four resources (Priority Setting Users Guide, Priority Setting Reviewers Guide, On Line Health Planners Toolkit, and Reviewer's Template) to support evidence informed priority setting were designed around the organizational Priority Setting Template and evaluated. Although the three of the four tools were positively evaluated, and a strong appetite for evidence-informed planning was identified, the evaluation found the process developed was not effective in setting priorities. The process assumed a one stage priority setting process, whereas the evaluation identified the need for a two stage/two strategy process.

Significant differences were found between quantitative results using the reviewers' template and systematic assessment of reviewers' confidence in the importance of the problem and appropriateness of the solution, indicating important limitations of the Reviewer's template. Issues with evaluating appropriate use of evidence in proposals were identified. Evidence was used to argue for the importance of addressing an issue, but rarely to inform the proposed response.

None of the New Initiative submissions scored highly based on the review template developed for this project, and a number of limitations were identified with the scoring/review system. As a result, submissions were not ranked, although six proposals were prioritized using alternate criteria,

and presented to Executive Committee. The Executive committee selected a list of 10 priorities that did not overlap with the 6 put forward.

Key issues for organizational change were identified in collaboration with WRHA Executive, and finance and planning partners. Important insights included:

- *Recognition of the need to differentiate various stages of priority setting*
- *Appreciation of the complexities of priority setting and limitations of rigid scoring systems*
- *Identification of diverse perspectives around who should be involved and how in determining priorities.*
- *Inadequacy of current strategies for obtaining program input in priority setting*
- *The need for creative strategies to promote both innovation and integration between program areas*.
- *The importance of ensuring adequate time and resources to support proposed changes.*

Findings through the collaborative activity are being integrated into the next iteration of improvements to priority setting processes.

2.3.3. Phase 2b Rural/northern component

2.3.3.1. Trial Library services for rural RHA decision-makers

More than 25 new library memberships were provided as part of this collaborative initiative with the Neil John McLean (NJM) Health Library. Prior to this project, only Winnipeg Regional Health Authority and Burntwood Regional Health Authority staff had access to a full health library service.

The most popular service that the NJM membership provided was the ability to download full text articles.

Users felt that access allowed them a greater freedom and confidence in using evidence to support work activities such as those necessary for regional program planning and review.

2.3.3.2. Decision “post mortem” case studies

Seven focus group interviews were conducted to retrospectively examine decisions selected for case study. Similarities in the trajectories of the decisions studied were identified including a noted impact resulting from perceived potential threat to or loss of health authority resources. Two main roles for the use of evidence in RHA decision-making emerged; a facilitative role that enhances the organizational capacity to recognize and capitalize on

opportunity and a targeted role for evaluating fit in terms of timing, costs and benefits.

The identification of two main roles for the use of evidence in RHA decision-making indicates that more than one strategy may need to be considered to ensure that all necessary evidence is available for this process.

2.3.3.3. RHA Board Education module

RHA Board members are aware that the appetite or need for evidence is increasing and that more sources of evidence are becoming available to them. There was recognition that evidence was not always sufficient or of high enough quality to make a decision and that the ethical and moral implications were sometimes more important to consider than the direction that the concrete and objective evidence appeared to be pointing towards.

It was generally agreed that new Board members could use a guide to help them learn about EIDM more quickly and that such a product could shorten the discussion time needed to gain agreement on whether evidence was appropriate and sufficient for specific board decisions.

Building on the information collected in the interviews, a printed workbook, incorporating information from tools developed in Phase 2a, will be produced. In response to concerns identified in interviews, the Board Education Module on Evidence Informed Decision Making will focus on five basic questions:

- What is evidence and why is it important?
- How can evidence be evaluated and measured?
- Knowledge management or why is it so hard to overcome barriers to using evidence?
- How does evidence impact decision making processes?
- How does evidence informed decision making fit within Board Governance?

3. Project outputs

3.1. Tools developed

3.1.1. Phase 2a

Six tools were developed in this portion of the project.

3.1.1.1. What is Evidence?

A brief fact sheet for education and orientation to the topic of evidence informed decision-making. A copy of the final version is reproduced in Appendix E.

3.1.1.2. Evidence Informed briefing note guidelines

A template including guidelines that can be modified for use to suit organizational needs. See Appendix F.

3.1.1.3. Using Evidence in your work

A PowerPoint slide show with speakers notes and suggestions for questions/activities to promote engagement with various audiences. See Appendix G.

3.1.1.4. A guide to searching for evidence-based information in the health sciences literature

Tips for using library services at the Neil John McLean Health Library to search for health evidence. See Appendix H.

3.1.1.5. How do I know if the evidence is good enough?

A rating sheet based on a previously published tool. See Appendix I.

3.1.1.6. Barriers and strategies to EIDM

A synthesis of information collected and interpreted during Phase 1 and Phase 2a. See Appendix J.

3.1.2. Phase 2b WRHA component

Four tools were developed, three were found to be helpful by participants. However, as the processes they were designed to support were not assessed as effective, caution is required before using them in other settings.

3.1.2.1. WRHA Priority Setting Users Guide. (Appendix K)

3.1.2.2. Online Health Planners Toolkit. (Appendix L)

3.1.2.3. WRHA Priority Setting Reviewer's Guide (very similar to the User's Guide, so not duplicated in the Appendix)

3.1.2.4. Reviewer's Template. Not recommended.

3.2. WRHA component outputs

3.2.1. Collaborative evaluation of revised evidence-informed priority setting process was completed. Results were presented to Senior Management and are informing the next iteration of process improvement for internal priority setting. Evaluation findings, which suggest the need for multi-phase priority setting with various strategies for each, have implications for other priority setting activities in other regions.

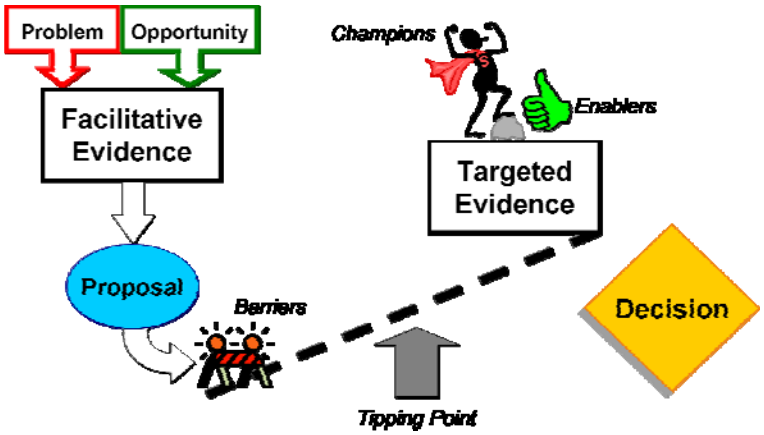
3.3. Rural/northern component outputs

At the close of the trial membership period, the Regional Health Authorities of Manitoba and the Neil John McLean Health Library announced that they had reached an agreement to provide library services to RHA staff. The evaluation of the *From Evidence* to

Action/NJM initiative was widely circulated prior to the agreement being reached and is believed to have played a role in the negotiation.

3.3.1. A model of the role of evidence in making regional health authority decisions.

Information concerning the enablers, barriers and types of evidence used decision-making was gathered. Similarities in the trajectories of the decisions studied were identified including a noted impact resulting from perceived potential threat to or loss of health authority resources. The role of champions and tipping points was explained. A graphic model representing the findings is found below.



3.3.2. A framework for an educational module on EIDM for health authority board members was developed and disseminated to project advisory members.

The following table describes the content objectives that will be used to produce a written guidebook for RHA board members outside of the *From Evidence* to Action project.

Table 2: Board Education Content and Objectives

What is evidence and why is it important? This section will explore the different kinds and sources of information that make up "evidence" from systematic, research-based evidence to anecdotal stories, focussing on the strengths and limitations of each. Objective: Enable Board Members to categorize information to prepare for assessing its quality and sufficiency.
How can evidence be evaluated and measured? This section will discuss various frameworks for evaluating information. Examples of checklists and decision trees will be provided along with a plain language explanation of critical appraisal. Objective: Enable Board members to select and use a method to evaluate quality of evidence.
Knowledge management or why is it so hard to overcome barriers to using evidence? This section will examine the concept of knowledge management, how it relates to evidence in decision making and the challenges presented by the explosion of information in health care. Objective: Provide a framework for understanding knowledge management processes within the RHA.
How does evidence impact decision making processes? This section will look at an overview of processes and frameworks for decision making with special attention to faults in logic and errors/mistakes in thinking. Objective: Increased conscious awareness of the process for decision making and a guide to identify (and prevent?) faulty logic.
How does evidence informed decision making fit within Board Governance? This section will explore the relationship between information and governance tasks as described in Policy HSC 200.1: Board Governance and Accountability- (Page 2) Section 6: Expectations of Effective Governance - looking at examples of information and processes that might facilitate the roles responsibilities described. Objective: Provide a framework to begin examining current Information to Board practices and set guidelines related to "need" to know versus "nice" to know.

4. Dissemination Activities

A full list of dissemination activities associated with this project is found in Appendix M.

4.1. Integrated knowledge translation

Arising out of findings from the evaluation of *The Need to Know* Team (a CIHR funded research project), this project included heavy emphasis on integrated KT. Acting as the project advisory group, the Need to Know Team members were both stakeholders and potential research knowledge users who were engaged in the entire research process including collaborating to determine the

research questions, deciding on the methodology, being involved in data collection and tools development, interpreting the findings, and helping disseminate the research results.

During the course of the research project, NTK members collaborated formally and informally in individual interviews. In addition, there were a total of ten presentation/discussion sessions where members of the team were presented with a research update and then provided feedback and suggestions for the next stage of the project to the research team.

Similar presentations were made to other key stakeholders (WRHA managers, Regional Health Authorities of Manitoban, Medical Officers of Health) and graduate students studying health services research.

Within the WRHA component (which was based on embedded research in partnership with organizational partners and responding to an identified organizational priority) integrated KT contributed to development of internal capacity around a) definitions and sources of evidence, b) collaborative evaluation, c) combining ethics and evidence in priority setting processes, d) methods for engaging decision-makers in identifying and responding to needs for improved processes, and e) the complexity and multi-phased nature of organizational priority setting. Regular reports of the activity, results of (and challenges identified with) use of the Priority Setting Template, and final report (including recommendations) was made by the combined operations/research team to WRHA senior management.

4.2. End of grant knowledge translation

Several end of Phase 1 presentations were held with relevant audiences (e.g. Medical Officers of Health, RHAM, Rural and Northern Healthcare day).

To date, end of grant activities have concentrated on dissemination to peers through conference presentations and publications in peer-reviewed journals. One article has been published in a peer reviewed journal and another has been submitted. Others are being developed for submission later this year. One conference presentation has been delivered.

Three summary briefings to stakeholders have already taken place and others are planned for this fall in which researchers will provide customized messages for specific audiences.

Finally, many of the tools developed as part of the project as well as public project reports will be made available at the Manitoba Centre for Health Policy website.

APPENDICES
(Removed from the short version of this report)

Appendix A: From Evidence to Action Phase 1 Report

Appendix B: From Evidence to Action Phase 2a Activity Report

Appendix C: Evaluation of the WRHA 2008 New Initiatives Review Process

Appendix D: Research Activity Report - Phase 2b Rural/Northern Component

Appendix E: What is Evidence? Tool

Appendix F: Evidence Informed Briefing Note Guidelines Tool

Appendix G Using Evidence in Your Work Tool

Appendix H: A Guide to Searching For Evidence-Based Information in the Health Sciences Literature Tool

Appendix I: How do I know if the evidence is good enough? Tool

Appendix J: Barriers and Strategies to EIDM Tool

Appendix K: WRHA Priority Setting Users Guide Tool

Appendix L: Online Health Planners Toolkit

Appendix M: From Evidence to Action Project Dissemination List