

**A Handbook on Knowledge Sharing:  
Strategies and Recommendations  
for Researchers, Policymakers,  
and Service Providers**



**By Lily Tsui**

With

Sherry Ann Chapman  
Laurie Schnirer  
Sheena Stewart

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**Community-University Partnership**  
for the Study of Children, Youth, and Families

## **PREFACE**

This handbook was created by the Community-University Partnership for the Study of Children, Youth, and Families (CUP) as a resource for those interested in knowledge sharing among researchers, policymakers, service providers, and the public.

This handbook was formulated using existing knowledge-sharing resources, which were collected, reviewed, and summarized. In addition, CUP's experiences working with researchers, policymakers, and service providers have informed the development of this handbook.

The target audience for this handbook includes those struggling with knowledge sharing among researchers, policymakers, and service providers in the health and social science fields. This book represents an attempt to bring together the diversity of information that was scattered across books, journals, and organizations into a logical, accessible resource, which will hopefully be a useful tool to those engaged in knowledge sharing.

As the art and science of knowledge sharing progress, revisions to this manual will be made. CUP invites any ideas for future editions for this ongoing work-in-progress.

Questions, comments, and ideas for future editions can be sent to:

Community-University Partnership  
for the Study of Children, Youth, and Families  
306 Campus Tower  
University of Alberta  
8625 - 112 Street  
Edmonton, Alberta  
T6G 1K8

Lily Tsui, Communications and Knowledge-Sharing Coordinator  
cupcom@ualberta.ca  
780.492.0394

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# INTRODUCTION

## ***i. What is Knowledge Sharing?***

For the purpose of this handbook, *knowledge sharing* is defined as the process of exchanging knowledge (skills, experience, and understanding) among researchers, policymakers, and service providers.<sup>1</sup>

Knowledge sharing is becoming increasingly important to ensure that practice and policy are based on sound evidence. For this to happen, the gaps among research, practice, and policy must be bridged. Knowledge sharing is a tool that can be used to promote evidence-based practice and decision making, and also to promote exchange and dialogue among researchers, policymakers, and service providers. However, little is known about knowledge-sharing strategies and their effectiveness.

There are a number of possible reasons for why a coherent, integrated understanding of knowledge-sharing strategies does not yet exist:

- Knowledge sharing often occurs within and among diverse disciplines whose members may not communicate and share their expertise and promising practices.
- Knowledge sharing occurs even when sharing knowledge is not the objective; when informal knowledge sharing does occur, it may not be identified as a knowledge-sharing strategy.
- Knowledge sharing encompasses a broad scope of activities; lack of agreement on what “counts” as knowledge sharing limits collaboration and shared understanding.

This handbook is an attempt to deal with these issues by bringing together and reviewing resources on knowledge sharing.

### **Knowledge sharing includes:**

- Any activity that aims to share knowledge and expertise among researchers, policymakers, service providers, and other stakeholders to promote evidence-based practice and decision making.
- Situations in which knowledge sharing may not be an explicit goal, but knowledge and expertise are shared nonetheless.

Although this handbook is based in part on CUP’s experiences with research and knowledge sharing related to the healthy development of children, youth, and families, much of this handbook’s content may be applicable to other multidisciplinary domains (e.g., environmental studies, agriculture, and women’s studies).

<sup>1</sup> Although this handbook is focused on knowledge sharing among researchers, policymakers, and service providers, knowledge sharing can occur among many other groups, such as parents and the public. These groups are included as “stakeholders” in the text.

## **ii. Handbook Structure**

This handbook was organized to present a coherent story about knowledge sharing, moving from why it is needed, to what is known, and to what still needs to be done. The following brief descriptions of the handbook's chapters are meant to assist in identifying the relevant chapter when a review of the entire document is not feasible.

This handbook contains five chapters. **Chapter 1** is a discussion about the research-practice gap and how knowledge sharing can form a bridge between researchers, policymakers, and service providers.

**Chapter 2** is an exploration of what is known about knowledge sharing and the integration of this knowledge, with an examination of the diffusion of innovations theory<sup>2</sup> as a possible starting point to further expand knowledge sharing.

Chapter 3 and Chapter 4 are about “doing.”

**Chapter 3** contains descriptions of research collaborations and communities of practice as ways of working that include knowledge sharing as part of the process.

**Chapter 4** is about specific knowledge-sharing strategies, with recommendations for choosing strategies and their use.

To conclude the handbook, **Chapter 5** contains a discussion on knowledge-sharing research and evaluation, and looks towards the building of a knowledge-sharing culture, along with recommendations for researchers, policymakers, and service providers on how they may begin working together.

More detailed chapter summaries are provided at the start of each chapter.

<sup>2</sup> Rogers, E. M. (2003). *Diffusion of innovations* (5th Ed.). New York, NY: Free Press

# CHAPTER 1 - BRIDGING THE RESEARCH-PRACTICE GAP

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In this chapter, background for the contents of this handbook is provided through a discussion on the use of knowledge sharing in bridging the research-practice gap. An examination of the multiple perspectives researchers, policymakers, and service providers may bring to knowledge sharing follows.

In *Section 1.3, A Closer Look: Finger Pointing Between Health Researchers and Decision-Makers*, a policy commentary about the difficulties in knowledge sharing is drawn upon as an example of potential conflict between researchers and decision-makers. Possible ways presented in the policy commentary to deal with conflict are also summarized.

## 1.1 The Research-Practice Gap: A Product of Diverse Cultures

The *research-practice gap* is the chasm between what is known from research and what is actually practiced. For example, in the sphere of education, researchers and educators both express frustration about the difference between what is known about school learning and what is practiced in schools.<sup>3</sup> The size of the research-practice gap varies from discipline to discipline, with some academic domains experiencing strong knowledge uptake (e.g., business and agriculture), while other disciplines are only beginning to promote knowledge sharing actively to close the research-practice gap.

The research-practice gap exists because researchers, policymakers, and service providers differ in training, goals, and priorities. These differences may lead to and also reflect very different cultures. The Canadian Health Services Research Foundation describes a need to develop a shared culture or common set of beliefs and values among groups that support and embrace evidence-based practice by working together and seeking common ground.<sup>4</sup> However, to begin building a shared culture that supports knowledge sharing, the multiple points of view from which researchers, policymakers, and service providers currently approach knowledge-sharing activities must be explored.

<sup>3</sup> Zuzovsky, R. (1994). Utilization of research findings: A matter of research tradition. *Knowledge & Policy*, 7(4), 78-93.

<sup>4</sup> Canadian Health Services Research Foundation. (2005). *Leveraging knowledge: Tools and strategies for action*. Retrieved November 28, 2006 from [http://www.chsrf.ca/knowledge\\_transfer/pdf/2005\\_workshop\\_report\\_e.pdf](http://www.chsrf.ca/knowledge_transfer/pdf/2005_workshop_report_e.pdf)

## 1.2 Knowledge Sharing From Multiple Perspectives: Researchers, Policymakers, and Service Providers

Researchers, policymakers, and service providers all have something to gain from knowledge sharing, but differences in their interests and backgrounds result in diverse challenges and approaches. An exploration of the perspectives each group brings, and the differences among them are presented here.

### 1.2.1 Researchers

In the past, academic researchers have received few, if any, incentives from universities to participate in non-research activities beyond publishing in peer-reviewed academic journals and presenting at conferences. Requirements for tenure and promotion favored research, and even where a “service” component has existed, knowledge sharing with non-academic groups has been only one of many ways in which a service component could be fulfilled. Thus, researchers may not see knowledge sharing as part of their jobs, and many may feel that they lack the skills to communicate their research to non-academics. Given this lack of incentive to invest time and resources in knowledge sharing, it is perhaps not surprising that relatively few researchers value or participate in such activities.

Beyond the investment of time and resources in the face of limited returns in traditional academic settings, researchers are also limited by the ways in which research is funded. As knowledge sharing is often seen as something that occurs after the research is concluded, when resources (e.g., financial resources, staff) may be exhausted, the knowledge-sharing component is often lost. Currently, funders of research are beginning to see and value knowledge-sharing activities; in the past few years, there has been a shift toward more funding opportunities that require a significant knowledge-sharing component.<sup>6</sup>

*“The most important challenge faced by universities and other research organizations is overcoming the disincentives built into the reward and recognition systems for researchers. Research is often narrowly defined and rewarded, and an elitist perception deters external partners.”<sup>5</sup>*

<sup>5</sup> Canadian Health Services Research Foundation. (1999). *Issues in linkage and exchanges between researchers and decision makers*. Retrieved November 28, 2006 from [http://www.chsrf.ca/knowledge\\_transfer/pdf/linkage\\_e.pdf](http://www.chsrf.ca/knowledge_transfer/pdf/linkage_e.pdf)

<sup>6</sup> For example, the Alberta Centre for Child, Family and Community Research has knowledge-sharing components built into their research funding programs. For more information, see [www.research4children.com](http://www.research4children.com)

## 1.2.2 Policymakers

Governments (municipal, provincial, and federal) are charged with addressing multiple issues grouped under broad ministries, and bombarded with an excess of information about issues of concern to constituents and politicians. Policymakers are often faced with the daunting task of sorting through a mountain of information to isolate key knowledge. Research evidence is only one source of information among many, and may conflict with policymakers' values and the current political climate. In addition, the presentation of research evidence with many caveats and apparent lack of clear conclusions can make incorporating evidence in policy decisions difficult.

The use of research evidence by policymakers, particularly those attached to government, is further limited by the timelines within which they work. The nature of political office means that there is often a sense of urgency and action when responding to constituents' demands. In addition to being in term-limited positions, policymakers may also find that they are working with colleagues who have very different perspectives regarding the value of research evidence.

## 1.2.3 Service Providers

Service providers, the front-line users of knowledge, face a number of challenges that limit their participation in knowledge sharing. Often, limited time and resources are available to engage in knowledge sharing. Even when participation is possible, service providers may have varying degrees of power to modify practices, depending on their institutional roles, even if they believe changes in practice are needed.

Service providers may see research evidence as contradictory with their practice experiences. When such a discrepancy occurs, service providers may have to decide which body of evidence (experience versus research) to follow. Given that research evidence may be perceived as inaccessible or difficult to understand, it is not surprising that research evidence may be rejected in favor of professional experience.

## 1.3 A Closer Look: Finger Pointing Between Health Researchers and Decision-Makers

To illustrate how the differences among researchers, policymakers, and service providers may impact their ability to work together, the following is a summary of *Improving Research Dissemination and Uptake in the Health Sector: Beyond the Sound of One Hand Clapping*,<sup>7</sup> a policy commentary by Jonathan Lomas.

Lomas describes communication difficulties between health researchers and decision-makers. Both groups have their own (often misplaced) ideas about the other's culture: this may arise due to few opportunities for ongoing exchange and communication.

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<sup>7</sup> Lomas, J. (1997). *Improving research dissemination and uptake in the health sector: Beyond the sound of one hand clapping*. McMaster University Centre for Health Economics and Policy Analysis, Policy Commentary C97-1.

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Decision-makers may accuse health researchers of:

- Failing to respond to policy priorities.
- Measuring timelines in years instead of weeks.
- Favoring technical research jargon over straightforward communication.
- Focusing too much on limitations of research findings rather than on “real” solutions.
- Relying too heavily on written communication in place of person-to-person interaction.

In turn, researchers may accuse decision-makers of:

- Imposing unrealistically short timelines.
- Being unaware of important, researchable questions.
- Being unable to distinguish “good” from “bad” research.
- Expecting practical applications from theoretical research.
- Ignoring research findings due to politics or ideology.
- Being unprepared to invest resources to monitor, influence, and incorporate research in decision making.

Lomas identifies four fundamental misunderstandings between researchers and decision-makers as the possible basis for these accusations:

- Both think of each other’s activities as the production of products rather than engagement in processes.
- Researchers fail to recognize decision-makers’ distinctions between “rational” decisions (research-driven and apparently context free) and “sensible” decisions (pragmatically driven and dependent on institutional and political contexts).
- Decision-makers may not be aware of or may not accept the lack of incentives and rewards built into the organizational structures of research environments.
- Researchers rarely distinguish between or cater to the different needs of potential non-academic audiences for their research.

Lomas’ analyses of the problems between researchers and decision-makers support the need for more opportunities for researchers and potential non-academic audiences to interact with each other.<sup>8</sup> Increased interaction between researchers and decision-makers would not only increase knowledge-sharing opportunities, but also increase understanding between the two groups and differentiate the roles research evidence has within their work.

<sup>8</sup> One suggestion by Lomas (1997) for particularly successful interactions is research collaborations between researchers and potential users of research outcomes that begin early in the research process. Please see Chapter 3 for a discussion on research collaborations and subsequent partnerships.

## CHAPTER 2 - WHAT IS KNOWN ABOUT KNOWLEDGE SHARING?

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This chapter contains a discussion on the current state of the art and science of knowledge sharing. What is known about knowledge sharing, and also, what is still unknown? How might some common obstacles in knowledge sharing be overcome? A discussion on diffusion of innovations theory then follows to highlight one possible set of ideas to guide knowledge sharing.

### **2.1 What is Evidence and Evidence-Based Practice and Decision Making?**

For the purposes of this handbook, *evidence* includes research findings, experiential knowledge, values, beliefs, and other ways of understanding that researchers, policymakers, and service providers draw upon in their practice and decision making. Although the contents of this handbook reflect a strong focus on research findings as evidence that needs to be shared, other forms of evidence are also important and must be taken into account.

Evidence means different things to different people. Part of the difficulty in moving research findings into practice and policy and in moving practice and policy knowledge into research has been a tendency by researchers to value research as “best” evidence. Given that social values sometimes conflict with research evidence,<sup>9</sup> it is critical for effective knowledge-sharing approaches that both knowledge about research and practice is included in an integrated body of evidence.

The reality is that research findings must compete with other sources of persuasion, as well as with the pressure for rejection because of their incompatibility with interests or ideology.<sup>10</sup> A better understanding by researchers of the competing sources of information, the ways in which their findings may be translated, the decision-making structures within which service providers and decision-makers work, and current social values will assist researchers in understanding how and when their findings may be useful and most likely to be incorporated.<sup>11</sup> ***Evidence-based practice and decision making occur when actions are based on an integrated body of evidence that includes all of the forms of evidence described above.***

<sup>9</sup> Canadian Health Services Research Foundation. (2002) *Knowledge transfer in health*. Retrieved November 28, 2006 from [http://www.chsrf.ca/knowledge\\_transfer/pdf/ktransfer2002\\_e.pdf](http://www.chsrf.ca/knowledge_transfer/pdf/ktransfer2002_e.pdf)

<sup>10</sup> Lomas, J. (1997). *Improving research dissemination and uptake in the health sector: Beyond the sound of one hand clapping*. McMaster University Centre for Health Economics and Policy Analysis, Policy Commentary C97-1.

<sup>11</sup> Weiss, 1983. As cited in Lomas, J. (1997).

## **2.2 The Search for Knowledge-Sharing Evidence**

One of the first steps in developing this handbook was to review knowledge-sharing literature and other available resources. This task was more labor-intensive than anticipated, which may reflect the interdisciplinary nature of knowledge sharing.

The handbook preparation process began with a search for keywords related to knowledge sharing in academic journal databases. Despite common overlap in the use of terms such as “knowledge sharing,” “knowledge transfer,” “knowledge translation,” “research dissemination,” and so on, database searches with these and other related terms often yielded different citations. Furthermore, search results came from a variety of academic disciplines, and the degree to which the content was relevant to this handbook varied greatly. Knowledge sharing was often described as a recommended activity in light of specific research outcomes, but not as a subject of inquiry. The diversity of the results also made the task of sorting through the information very difficult.

Review of the resulting references indicated that the art and science of knowledge sharing was in its infancy. Empirical evidence on which factors influence the effectiveness of knowledge-sharing strategies is nearly non-existent. At best, evaluations are sometimes conducted on specific knowledge-sharing activities about a particular content area (e.g., sex education), but the evaluations tend to focus on the quantity of content uptake rather than the effectiveness of particular knowledge-sharing activities (e.g., workshops, websites, print materials). Knowledge about knowledge sharing appears ironically not to be based on any significant body of research evidence. For knowledge sharing to be successful, significant investments of time and resources are required from researchers, policymakers, and service providers. Additionally, basing knowledge-sharing activities on a body of evidence that includes research findings would provide some confidence that these investments are worthwhile.

Despite the lack of empirical research on effective knowledge-sharing practices, review of the available resources suggests that there may be significant agreement among knowledge-sharing professionals on the factors likely to foster effective knowledge sharing. The importance of interactivity, the commitment of time and resources, and the need to cater to specific audiences are all mentioned repeatedly as critical to knowledge-sharing success. Although these components are not yet supported by robust empirical evidence, the fact that so many authors with differing approaches and expertise can agree suggests their potential as effective knowledge-sharing practices.

Regardless of the differences between the disciplines within which knowledge sharing is discussed, the points on which these individuals and organizations agree may be a good place to begin exploring knowledge sharing. As will be seen in the following pages, a comprehensive, unified theory about knowledge sharing does not exist. However, starting from the common ground where knowledge-sharing professionals agree can serve as a foundation for developing this area of work.

## 2.2.1 A Closer Look: Grey Literature

The literature search conducted on knowledge sharing during the preparation of this handbook yielded a significant body of grey literature. **Grey literature includes scientific and technical reports, conference proceedings, internal reports, organizational documents, and fact sheets that are not readily available through peer-reviewed channels.** Grey literature is often viewed among academics as having a lower status than publications in peer-reviewed journals.<sup>12</sup>

Although the information presented in the grey literature on knowledge sharing is not peer-reviewed,<sup>13</sup> it may still yield valuable insights. Furthermore, the status researchers assign to peer-reviewed publications versus grey literature may not be perceived the same way by service providers and policymakers, and some grey literature may be more accessible compared to the highly technical language that characterizes peer-reviewed articles. Given that knowledge sharing is not only conducted by researchers, the comparatively few peer-reviewed resources compared to the more extensive availability of grey literature may be reflective of knowledge sharing as a collaborative activity among researchers, policymakers, and service providers.

## 2.3 Strategies for Overcoming Common Obstacles in Knowledge Sharing

Many of the resources reviewed for this handbook refer to the importance of knowing the audience when sharing knowledge, the use of plain language, and storytelling for overcoming common knowledge-sharing obstacles.

### 2.3.1 Consider the Audience

Knowledge sharing is a process that requires guiding the audience in a particular way of thinking. To do so requires an understanding of the problems they face, the level of detail they need, and the style of thinking they use.<sup>14</sup> Planning effective knowledge sharing requires understanding the audience, not just the message.

In fact, knowledge sharing may be greatly facilitated by a strong focus on the audience in addition to the content of the message. Effective knowledge sharing requires identifying a community that cares about a topic and enhancing their ability to think together, stay in touch, share ideas, generate new knowledge, and connect with other communities.<sup>14</sup> The message must be one that is valuable to an audience based on their needs, delivered by a messenger they can trust, in language they are comfortable with.<sup>15</sup> One possible way to increase the effectiveness of a knowledge-sharing activity may be to conduct a needs assessment early in the planning process with representatives from the target audience to determine what they wish to know and how they would like to see that knowledge delivered prior to the activity.

<sup>12</sup> Non-conventional literature. (2006, December 12). In *Wikipedia, the free encyclopedia*. Retrieved December 12, 2006, from [http://en.wikipedia.org/wiki/Grey\\_Literature](http://en.wikipedia.org/wiki/Grey_Literature)

<sup>13</sup> Peer review, also known as refereeing in some academic fields, is the process through which an author's scholarly work is scrutinized by others who are experts in the field. From Peer Review. (2006, December 18). In *Wikipedia, the free encyclopedia*. Retrieved December 18, 2006, from <http://en.wikipedia.org/wiki/Peer-review>

<sup>14</sup> McDermott R. (1999). Why information technology inspired but cannot deliver knowledge management. *California Management Review*, 41(4), 103-117.

<sup>15</sup> Canadian Health Services Research Foundation. (2002). *Knowledge transfer in health*. Retrieved November 28, 2006 from [http://www.chsrf.ca/knowledge\\_transfer/pdf/ktransfer2002\\_e.pdf](http://www.chsrf.ca/knowledge_transfer/pdf/ktransfer2002_e.pdf)

### 2.3.2 Use Plain Language

Researchers, service providers, and policymakers may talk about their work in diverse ways. Researchers may communicate with one another in highly technical terms, whereas service providers may discuss similar issues in language based on their daily work, and policymakers in political jargon. If a community of people sharing knowledge spans several disciplines and contexts, a common language is needed.<sup>16</sup>

Given that the technical terms researchers use are a result of years of training in academic environments, and the constantly changing nature of political speak, the use of plain language is highly recommended whenever possible in knowledge sharing. ***Plain language is the use of straightforward language written for the sake of clear communication.***<sup>17</sup>

A plain language illustration:

*George endeavored to obtain through the exchange of currency the ownership of a Canis Familiaris the day before tomorrow.*

*vs.*

*George tried to buy a dog today.*

### 2.3.3 Tell Stories

*“Evidence itself is not sufficient; it must be communicated in ways that make it compelling.”<sup>18</sup>*

A key theme that emerged from a workshop held jointly by the Canadian Research Transfer Network and the Health Research Transfer Network of Alberta<sup>18</sup> is the importance of marketing research evidence—to present research findings in ways that are compelling to an audience. If the presentation of findings capture listeners’ imaginations, they will be more likely to apply that knowledge in practice and decision making. Workshop participants described a research-transfer paradox: research evidence’s best chance at being used may depend on how unlike research its presentation can be.

Telling stories may be one way to present research and other forms of knowledge in a way that is appealing to diverse audiences. Speakers at the workshop described a need to appeal to people’s emotions when presenting research evidence, stressing that a balance between science and emotion can be found in storytelling. Narratives allow for the sharing of experiences rather than information<sup>18</sup> and may assist audiences in learning key concepts.

## 2.4 Integrating What is Known About Knowledge Sharing

How can what is known about knowledge sharing be integrated into a single framework? Currently, resources on knowledge sharing are scattered across disciplines. Organizations working in knowledge sharing may not be aware of one another nor working together towards a shared understanding. However, knowledge-sharing resources appear to intersect in several ways (for example, the three strategies described in *Section 2.3*). A crucial next step for developing a framework for thinking about knowledge sharing may be to test related principles and theories outside the knowledge-sharing domain. The following section is a discussion about diffusion of innovations theory as a possible starting place from which a better understanding of knowledge sharing may begin.

<sup>16</sup> McDermott R. (1999). Why information technology inspired but cannot deliver knowledge management. *California Management Review*, 41(4), 103-117.

<sup>17</sup> Plain Language. (2006, December 12). In *Wikipedia, the free encyclopedia*. Retrieved December 12, 2006, from [http://en.wikipedia.org/wiki/Plain\\_Language](http://en.wikipedia.org/wiki/Plain_Language)

<sup>18</sup> Canadian Health Services Research Foundation. (2002). *Knowledge transfer in health*. Retrieved November 28, 2006 from [http://www.chsrf.ca/knowledge\\_transfer/pdf/ktransfer2002\\_e.pdf](http://www.chsrf.ca/knowledge_transfer/pdf/ktransfer2002_e.pdf)

### 2.4.1 A Closer Look: Diffusion of Innovations Theory<sup>19</sup>

The **theory of diffusion of innovations** was formulated to explain the spread of new ideas. Although it was not directly targeted towards knowledge sharing, many of the theory's principles appear to be useful for knowledge sharing in the health and social sciences.

The theory describes a **five-stage innovation-decision process**,<sup>20</sup> through which a “decision-making unit” (an individual, group, organization, etc.) moves from becoming aware of an innovation to confirming the decision to adopt or reject the innovation.

- Step 1: **Knowledge** occurs when awareness of an innovation is gained, along with some understanding of how it functions.
- Step 2: **Persuasion** occurs when a favorable or unfavorable attitude towards the innovation is formed.
- Step 3: **Decision** occurs when a choice is made to adopt or reject the innovation.
- Step 4: **Implementation** occurs when an innovation is put to use.
- Step 5: **Confirmation** occurs when the decision to adopt or reject is reinforced or changed.

If the assumption is made that the five-stage innovation-decision process has merit and it is applied to knowledge sharing, it becomes clear that knowledge-sharing cannot be a passive process of putting knowledge “out there” and expecting it to be adopted automatically. Rather, successful knowledge sharing could include efforts to make audiences aware that evidence is available, to persuade them that this evidence can be useful and relevant to their work, to support the implementation and use of this knowledge when a decision has been made to adopt the new information, and to understand why a decision to adopt or reject evidence is reinforced or changed.

For example, imagine that a research study has found that a patient is more likely to finish a course of medications if a nurse calls every three days with a reminder to take the medication. Imagine also that this research study was published in a peer-reviewed journal. Technically, the knowledge would be “out there”; however, it cannot be assumed that all health care professionals having difficulty getting their patients to finish their medication would read this article and become aware that a research study has demonstrated that this approach is effective.

*...continued on next page*

<sup>19</sup> Rogers, E. M. (2003). *Diffusion of innovations* (5<sup>th</sup> ed.). New York, NY: Free Press.

<sup>20</sup> p. 20, *Ibid.*

*...continued from previous page*

One possible way to share this knowledge effectively would be for the researcher to send a summary of the findings to health care offices, or to present the findings at a conference where health care professionals are likely to be in attendance. These approaches would increase awareness that the knowledge exists.

In addition, the summary or presentation could contain persuasive elements related to why it would be worthwhile to invest the time needed for nurses to check back with patients every three days, such as the decreased likelihood of relapse. The findings could be presented using storytelling, which may increase the persuasive power of the new knowledge.

Once a decision is made by health care professionals to adopt a callback strategy, the researcher could continue to support the adoption of the innovation by helping to find resources to make the strategy successful. This may include providing the research summary to doctors and nurses so that they could justify the additional time needed to follow-up with patients, supporting lobbying for changes to public health-care billing procedures, and other similar activities.

Finally, the stakeholders (which may include researchers, service providers whose work is impacted by the adoption of the strategy, and policymakers faced with the need to find resources to support the strategy) could work together to decide whether the costs of implementing a new practice, in this case, a callback strategy, are justified by the benefits.

#### **2.4.1.1 Applying Diffusion of Innovations to Knowledge Sharing**

Principles of diffusion of innovations theory can be applied to knowledge sharing, as illustrated in *Section 2.4.1*. At this time, applying diffusion of innovations to knowledge sharing must be done cautiously, as empirical evidence to support it does not yet exist. However, the application of external theories and principles (like the diffusion of innovations theory) may assist in developing promising practices, that when evaluated, may help identify best practices based on sound evidence.

## CHAPTER 3 - INTEGRATED KNOWLEDGE SHARING RESEARCH COLLABORATIONS AND COMMUNITIES OF PRACTICE

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This chapter contains descriptions about two ways of working in which knowledge sharing may occur as a natural outcome when researchers, policymakers, and service providers work together: research collaborations and communities of practice. The chapter ends with a discussion of the challenges that must be overcome when building knowledge-sharing communities.

### 3.1 Research Collaborations

Resources reviewed for this handbook repeatedly point to sustained, ongoing interactions between researchers and potential users of research evidence as one factor likely to increase the use of research evidence in practice and decision making. When potential users of research evidence are involved early in the process, the research questions are likely to be more relevant and applicable to issues of concern to them. Early involvement in the design of research projects may also create a sense of “ownership” of the research by potential users, which may increase the likelihood that findings will be applied to practice and decision making. Researchers may also have a lot to gain from early collaboration with policymakers and service providers as they have valuable knowledge about the populations they serve.

Researchers also have much to gain from collaborating with potential users of findings early in the research process. Such collaborations may shed light on innovative approaches to a problem, new variables to consider, and novel approaches to design and measurement. Collaborating with policymakers and service providers can result in relevant research questions and approaches that yield applied findings, which can lead to increased knowledge sharing.<sup>21</sup>

Over the years, CUP researchers have been engaged in long-term relationships with community partners, who have seamlessly included knowledge-sharing activities throughout the research process. Recently, CUP was asked by the Regional Early Childhood Development Initiative to manage a small grant program for innovative research on early childhood issues. Based on CUP’s experience with community partners, the ECDI Innovative Research Grant proposal process now requires research teams to build comprehensive knowledge-sharing plans with their community partners and can even receive separate funding for knowledge-sharing activities.

<sup>21</sup> Huberman, M. (1994). Research utilization: The state of the art. *Knowledge & Policy*, 7(4), 13-33.

### 3.1.1 Successful Research Collaborations

Researchers and decision-makers at a Canadian Health Services Research Foundation workshop in 2001<sup>22</sup> concluded that it was critical to create and maintain positive interactions between researchers and decision-makers to produce relevant research questions that meet decision-makers' needs. An advice list for decision-makers was produced at this workshop that described how these positive interactions may be achieved. The following is an adaptation of that list to make the advice suitable not only for decision-makers, but also for researchers and service providers who wish to engage in research collaborations.<sup>23</sup>

- **Commit enough time.** Researchers and potential users need to plan for a series of discussions as more than one conversation will likely be required to identify concerns and issues of interest before formulating an appropriate research question. For example, a large-scale research collaboration may require two to three years to plan and obtain funding.<sup>24</sup>
- **Get a knowledge broker<sup>25</sup> on the team.** If possible, involve a knowledge-sharing professional to help plan and support knowledge-sharing activities and research collaboration.
- **Understand one another.** Identify where the research interests and practical concerns cross paths. Determine what can and cannot be addressed within the proposed research activity.
- **“Unpack” the problem.** Break the question down into key elements and try rephrasing it in different ways.
- **Choose an approach.** Once a potential question is identified, work together to determine what kind of research evidence is needed and how it can be obtained or created. Consider the time and resources that are available and what research has already been done in that area.
- **Make a plan for long-term interactions.** Determine together how the potential users will stay involved with the research project, where their input will be considered in the decision-making process, and what the responsibilities are of each partner.

By working together from the start of a research project, researchers, policymakers, and service providers may increase the odds that the research is relevant to all involved and that the findings are used in practice and decision making.

<sup>22</sup> Canadian Health Services Research Foundation. (2001). *If research is the answer, what is the question?* Retrieved November 28, 2006 from [http://www.chsrf.ca/knowledge\\_transfer/pdf/research\\_e.pdf](http://www.chsrf.ca/knowledge_transfer/pdf/research_e.pdf)

<sup>23</sup> Adapted from Canadian Health Services Research Foundation. (2001). *If research is the answer, what is the question?* Retrieved November 28, 2006 from [http://www.chsrf.ca/knowledge\\_transfer/pdf/research\\_e.pdf](http://www.chsrf.ca/knowledge_transfer/pdf/research_e.pdf)

<sup>24</sup> Schnirer, L., Lynch, S., & Bisanz, J. (2005, September). *Midwife to an elephant: Gestational challenges of developing large, complex, multi-sector, community-based research projects*. Paper presented at CUExpo, Winnipeg, Canada.

<sup>25</sup> **Knowledge brokers are individuals whose job within an organization is to build bridges to overcome the culture gap between researchers, policymakers, and service providers.** For more about knowledge brokers, see *Section 4.3*.

### 3.1.2 Beyond Research Collaborations: Sustainable Partnerships

A successful research collaboration may lead to sustained, productive partnerships that survive beyond the life of a research project. The Canadian Health Services Research Foundation points to six characteristics of successful partnerships.<sup>26</sup>

- **Cultural sensitivity.** Differences between partners are respected, as both bring knowledge and expertise that are useful and when combined, can lead to better research, practices, and decision making.
- **Trust.** The investment researchers, policymakers, and service providers make to engage in a partnership are recognized; disagreements are expected; and ways to resolve conflict established prior to disagreements.
- **Commitment.** Partners are committed to solving a problem and see research projects as single steps towards the solution.
- **Clear roles and expectations.** All parties are clear about their intentions, assumptions, and limitations at the start of the process. In particular, written partnership agreements can be helpful in ensuring clarity. (For example, CUP usually drafts Memorandum of Understandings or Charters for research projects to ensure that roles and expectations are clearly laid out early in partnerships and collaborations.)<sup>27</sup>
- **Partner with the organization, not the individual.** Partnerships should be between organizations rather than individuals to protect against staff turnover and to increase the likelihood that project outcomes will be used.
- **Organizational support.** Resources such as time and money may be more accessible if employers are supportive of the partnership.

### 3.1.3 Potential Payoffs of Collaborations and Partnerships

While research collaborations and partnerships require a lot of work for all of those involved, the potential payoffs can be huge. Successful collaborations and partnerships can lead to the following outcomes:<sup>26</sup>

- **Accessible, practical research.** By working together, researchers, policymakers, and service providers can produce research packaged in a way that is more easily absorbed and applied in practice and decision making.
- **Application of research.** Working together may also improve the likelihood of findings being applied in practice and decision making through a sense of ownership of the results due to early engagement.
- **Sustained relationships.** Working together on one or more projects may result in collaboration over entire careers, with each party acting as guides to one another by offering different perspectives when problem solving.

<sup>26</sup> Canadian Health Services Research Foundation. (2002). *Productive partnerships: Report on the 2002 CHSRF annual invitational workshop*. Retrieved November 28, 2006 from [http://www.chsrf.ca/knowledge\\_transfer/pdf/2002\\_workshop\\_report\\_e.pdf](http://www.chsrf.ca/knowledge_transfer/pdf/2002_workshop_report_e.pdf)

<sup>27</sup> Please see [http://www.familiesfirstedmonton.ualberta.ca/documents/FFE\\_Project\\_Charter\\_2003.doc](http://www.familiesfirstedmonton.ualberta.ca/documents/FFE_Project_Charter_2003.doc) for an example of a charter.

## 3.2 Communities of Practice (CoPs)

Collaborations and partnerships may grow out of a community of practice (CoP), or a CoP may emerge from sustainable partnerships. A *community of practice* is a group of people who regularly interact with one another to share and learn based on their common interests.<sup>28</sup> Some knowledge-sharing professionals believe that these communities are necessary for both the creation and transfer of knowledge, where people learn by doing and interacting with others.<sup>29</sup>

The establishment of CoPs may help partners and collaborators overcome four barriers to knowledge sharing:<sup>28</sup>

- **Awareness.** CoPs increase community members' awareness of one another's knowledge.
- **Access.** CoPs provide time and space for community members to connect with one another.
- **Application.** CoPs ensure that community members share the common language and understanding necessary to share their insights.
- **Perception.** CoPs create an atmosphere where knowledge sharing among community members are respected and valued.

### 3.2.1 A Community of Practice: An Example

Christine is a service provider who works with autistic children. Mary is a researcher who studies autistic children's interactions with others. Christine's experiences, if shared with Mary, may inform future research questions, making the findings more relevant to other service providers. Mary's knowledge, if shared with Christine, may be useful to Christine in her day-to-day practice.

If a community of practice among those working with autistic children and researchers studying autism does not exist, Christine and Mary may never become aware of one another's knowledge. Without awareness, knowledge sharing is not going to take place.

However, a local autism society, concerned about the lack of exchange between service providers and researchers working with autism, creates an online forum and actively recruits both Christine and Mary to participate. As the number of information exchanges begin to grow, Christine and Mary become aware of one another (awareness), and begin to communicate regularly through the online forum (access). Both of their knowledge bases grows larger as the forum grows and professionals from both the local area as well as beyond the region contribute to the discussions. As Christine and Mary participate, they gain knowledge that increases their ability to apply what they know to their research and practice (application). Members of the society moderate the forum and actively promote its use by providing opportunities to compliment online participation with in-person social events (perception).

<sup>28</sup>Lesser, E. L. & Fontaine, M. A. (2004). Overcoming knowledge barriers with communities of practice: Lessons learned through practical experience. In P. M. Hildreth & C. Kimble (Eds). *Knowledge networks: Innovation through communities of practice* (pp. 14-23). Hershey, PA: Idea Group Publications.

<sup>29</sup>Estabrooks, C. A., Thompson, D. S., Lovely, J. J. E., & Hofmeyer, A. (2006). A guide to knowledge translation theory. *Journal of Continuing Education in the Health Professions*, 26(1), 25-36.

### 3.2.2 Natural Learning in Communities of Practice

Communities of practice are natural learning communities: when given the opportunity, people will naturally seek help, share insights, and build knowledge in and around topics about which they care.<sup>30</sup> Bringing people together on issues about which they are passionate fosters knowledge sharing, both in formal, organized knowledge-sharing activities and in more informal ways.

Informal knowledge-sharing opportunities within communities of practice include unwritten work routines, tools, stories, specialized language, and common wisdom that arise from experience; stories are shared at conferences and chance hallway meetings; and people learning from each other's thinking when problem solving together.<sup>30</sup> Much of a community's knowledge is created and shared in these informal exchanges, and all contact between members of a community can be vehicles for sharing knowledge, even if they were not intended as such.<sup>30</sup>

### 3.3 Building Knowledge-Sharing Communities

Collaborations, partnerships, and communities of practice are all types of knowledge-sharing communities. Four key challenges must be overcome as these communities grow:<sup>30</sup>

- **The technical challenge.** Human and information systems must be designed to help community members think together, in addition to simply making information available.
- **The social challenge.** Communities must maintain enough diversity to encourage innovative thinking, yet still have common goals and interests.
- **The management challenge.** Environments that truly value knowledge sharing must be created and maintained.
- **The personal challenge.** Community members must be open to the ideas of others, be willing to share ideas, and maintain a thirst for new knowledge.

When these challenges are addressed, knowledge-sharing communities can provide opportunities for researchers, policymakers, and service providers to work together and learn from one another.

<sup>30</sup> McDermott, R. (1999). Why information technology inspired but cannot deliver knowledge management. *California Management Review*, 41(4), 103-117.

## CHAPTER 4 - TOOLBOX FOR KNOWLEDGE SHARING

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This chapter includes practical advice on choosing knowledge-sharing strategies, information about specific strategies, and issues to think about when considering their use. Given the lack of clear evidence as to the strengths and limitations of each strategy, recommendations given here are guidelines for promising practices rather than prescriptions for best practices.

Three categories of knowledge-sharing strategies are covered in this chapters: writing, speaking, and online strategies.

## 4.1 Choosing Knowledge-Sharing Strategies

It is unlikely that there is a single knowledge-sharing strategy that is effective in all situations. Some knowledge-sharing professionals caution against getting caught in a “one-size-fits-all” mindset, which may result in a failure to tailor the content, timing, setting, and format of knowledge sharing with different audiences.<sup>31</sup> “One-size-fits-all” strategies are rarely successful, and representatives among researchers, policymakers, and service providers should be consulted to determine their preferences for format, timing, and location.<sup>32</sup> When communities determine what they need to share and what forum will best enable them to share it, they can more readily own both the knowledge and the forums for sharing it.<sup>33</sup>

Until clear evidence is available on which knowledge-sharing strategies will work best in a variety of contexts, when choosing strategies it may be best to consult with the target audiences when choosing strategies. Our experiences at CUP have shown that a common trap in choosing knowledge-sharing strategies may be jumping on board too quickly with new, high-tech knowledge-sharing strategies. For example, although internet media may be accessible in theory to anyone with an internet connection, individual comfort levels with online technologies may vary greatly. CUP is learning about the challenges of using internet media through efforts to promote the use of discussion forums at CUP’s website.

### 4.1.1 Using Multiple Strategies

Although the choice of knowledge-sharing strategies will depend upon available resources, where possible, using more than one strategy may be the best option. Using multiple strategies may increase knowledge-sharing success by:

- Providing very specific, tailored messages for diverse audiences based on their specific knowledge-sharing needs.<sup>34</sup>
- Highlighting different components within the body of knowledge being shared and increasing opportunities for collaborative thinking rather than just presenting information.<sup>33</sup>
- Encouraging community members to connect in diverse ways.<sup>33</sup>
- Increasing the likelihood that a message is heard and considered during decision-making by making the knowledge accessible at multiple times and in multiple ways.<sup>32</sup>

<sup>31</sup> Lomas, J. (1997). *Improving research dissemination and uptake in the health sector: Beyond the sound of one hand clapping*. McMaster University Centre for Health Economics and Policy Analysis, Policy Commentary C97-1.

<sup>32</sup> Canadian Health Services Research Foundation. (1998). *Communications primer*. Retrieved November 28, 2006 from [http://www.chsrf.ca/knowledge\\_transfer/pdf/comprimer\\_e.pdf](http://www.chsrf.ca/knowledge_transfer/pdf/comprimer_e.pdf)

<sup>33</sup> McDermott, R. (1999). Why information technology inspired but cannot deliver knowledge management. *California Management Review*, 41(4), 103-117.

<sup>34</sup> Canadian Health Services Research Foundation. (2001). *Knowledge transfer: Looking beyond health*. Retrieved November 28, 2006 from [http://www.chsrf.ca/knowledge\\_transfer/pdf/ktransfer\\_e.pdf](http://www.chsrf.ca/knowledge_transfer/pdf/ktransfer_e.pdf)

## 4.2 Defining Knowledge-Sharing Objectives

To expect that one workshop or conference will change the way people do things overnight is overly optimistic. As knowledge sharing is an ongoing, interactive process, it is important to consider identifying smaller-scale outcomes: Did some participants identify with a few key points? Have participants been inspired to find out more about a particular topic area?

If the innovation–decision process from diffusion of innovations theory<sup>35</sup> (knowledge/persuasion/decision/implementation/confirmation) were applied here, knowledge-sharing objectives could be based on a particular stage. For example, is the objective of a particular activity to make the target audience aware that certain knowledge exists? Or is it to persuade them that the existing information is valuable and should be applied in practice and decision making? Or was it to collect feedback on whether new knowledge helped to improve practice?

Given the complexity of the innovation–decision process, a single knowledge-sharing activity may be able to address only one or two stages. Setting reasonable goals, whether based on the diffusion of innovations theory or other frameworks, can provide clear guidelines about the content of the message.

Knowledge-sharing activities should improve access to information, ease communications with colleagues, and encourage participation in learning and decision-making communities.<sup>36</sup> The application of a single knowledge-sharing strategy may not be able to accomplish all of these objectives, but if additional knowledge sharing is planned for the future, it may be helpful to consider which objective should be accomplished first. Sometimes, a choice must be made between the most important objectives and others must be left to be pursued later.

Processes and strategies for making knowledge sharing effective will likely vary across individuals, organizations, and regions.<sup>36</sup> This may mean that reasonable goals would also differ significantly in different locations, at different times, and with different people.

<sup>35</sup> See *Chapter 2* for a discussion on the diffusion of innovations theory.

<sup>36</sup> Canadian Health Services Research Foundation. (2005). *Leveraging knowledge: Tools and strategies for action*. Retrieved November 28, 2006 from [http://www.chsrf.ca/knowledge\\_transfer/pdf/2005\\_workshop\\_report\\_e.pdf](http://www.chsrf.ca/knowledge_transfer/pdf/2005_workshop_report_e.pdf)

### 4.3 A Closer Look: Knowledge Brokers, Leaders in Knowledge Sharing

Knowledge sharing requires significant investment of resources. Regardless of the specific strategies, the work needed to carry out knowledge-sharing activities may consume significant time. If knowledge sharing is the responsibility of an individual who already has a large number of other commitments, that person may not be able to devote the time and energy necessary to facilitate knowledge sharing.

Another way to promote knowledge sharing is to include facilitators or *knowledge brokers within organizations whose job are to build bridges to overcome the culture gap between researchers and decision-makers*.<sup>37</sup> As knowledge sharing is more likely to be successful when there are ongoing interactions between stakeholders, having dedicated staff whose responsibilities are entirely focused on facilitating such interactions and in turn, knowledge-sharing opportunities can greatly increase knowledge-sharing effectiveness.

Although establishing such positions permanently may be difficult due to limited resources, organizations could consider consulting or contracting a knowledge broker to facilitate certain knowledge-sharing activities.

### 4.4 Knowledge-Sharing Strategies

Knowledge-sharing strategies are categorized here based on delivery method, and fall into three categories: writing, speaking, and information technologies. *Communicating Science: A Handbook*,<sup>38</sup> was drawn upon heavily for the writing and speaking sections; please refer to this resource if more detailed treatments than the ones provided are needed.

<sup>37</sup> Canadian Health Services Research Foundation. (1999). *Issues in linkage and exchanges between researchers and decision makers*. Retrieved November 28, 2006 from [http://www.chsrf.ca/knowledge\\_transfer/pdf/linkage\\_e.pdf](http://www.chsrf.ca/knowledge_transfer/pdf/linkage_e.pdf)

<sup>38</sup> Shortland, M., & Gregory, J. (1991). *Communicating science: A handbook*. Essex, England: Longman Scientific & Technical. (Note that this book is explicitly written with scientists and researchers as the target audience; however, the advice given can be used by anyone engaged in the activities described.)

### 4.4.1 Writing

Writing creates permanent knowledge-sharing products. The biggest advantage of written documents is durability: a well-written article on a research project or body of research can be useful for years after it is written, even if the author has moved on to other things. Access to written documents is usually available to all interested parties, regardless of proximity to the author. Writing also allows for extensive planning and editing during the creation of documents, a “safe” way to communicate as writers can take time to compose their messages. For readers, written documents allow them reflect on their reading and return to previous sections of text to clarify understanding.<sup>39</sup>

However, the permanence of written documents is also a potential weakness. Depending on the pace at which knowledge on a particular topic evolves, written documents may become relic-like, containing out-of-date information. If the pace of ideas and innovations is fast enough, a written document may become out-of-date before it even reaches intended audiences.

Categories of written materials are numerous. For the purposes of this handbook, research publications and technical reports, books and book chapters, newsletters, media advisories and releases are discussed.

#### 4.4.1.1 Research Publications and Technical Reports

Peer-reviewed research publications have been the way in which researchers have shared knowledge with one another for a long time. However, the content may not be accessible to audiences without research backgrounds, as highly technical language is usually the norm. Access to research journals may also be a limiting factor, as some potential readers may not have access to journal subscriptions.

Technical reports are typically comprehensive documents outlining a research project or series of projects. These reports are usually provided to research funders after research has been concluded. Due to their comprehensive nature, technical reports can be extensive, sometimes with hundreds of pages.

Although research publications and technical reports in their traditional forms may be unsuitable as a knowledge-sharing strategy that aims to reach broader audiences, they can be adapted. One recommendation for increasing the accessibility of research publications and technical reports is the 1:3:25 approach.<sup>40</sup>

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<sup>39</sup> p. 37, Shortland, M., & Gregory, J. (1991). *Communicating science: A handbook*. Essex, England: Longman Scientific & Technical.

<sup>40</sup> Canadian Health Services Research Foundation. (2001). *Communication notes: Reader-friendly writing—1:3:25*. Retrieved November 28, 2006 from [http://www.chsrf.ca/knowledge\\_transfer/pdf/cn-1325\\_e.pdf](http://www.chsrf.ca/knowledge_transfer/pdf/cn-1325_e.pdf)

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The 1:3:25 approach suggests that research summaries should contain one page of main messages, a three-page executive summary, and a 25-page report. The contents as recommended by the Canadian Health Services Research Foundation are as follows:

**Main Messages** (1 page) contains:

- Main message bullets.
- What the findings may mean for the reader.
- Clear conclusions based on what was learned.

**Executive Summary** (3 pages) contains:

- Condensed findings.
- The story behind the research.
- Examples to illustrate what issues were examined.
- Summary of findings.
- Background to describe the impetus for this research.
- Context to demonstrate why this topic matters.

**The Report** (25 pages) contains a comprehensive report about the research presented in non-academic language, anecdotes or stories where applicable, and the following seven categories of material.

- Context. What is the issue?
- Implications. What do the findings mean?
- Approach. What was the method?
- Results. What was found?
- Additional resources. What other sources of information are available on this issue?
- Further research. What are the knowledge gaps and how might they be bridged?
- References and bibliography. What were the sources cited?

The 1:3:25 approach, though developed for researchers writing for decision-makers, may be a promising strategy for writing accessible research summaries for broader audiences.

#### **4.4.1.2 A Closer Look: Hot Briefs**

CUP's *Hot Briefs* are one-page summaries of research articles written in plain language that distill research articles into a few key messages and make research publications accessible to wider audiences. CUP produces *Hot Briefs* on topics of interest to those working with children, youth, and families, which are available at [www.cup.ualberta.ca](http://www.cup.ualberta.ca) (see Documents/Hot Briefs).

Similar documents are produced by other organizations that participate in knowledge sharing. For example, the Canadian Health Services Research Foundation produces *Mythbusters*, a series of research summaries that contradict accepted wisdom in Canadian health-care debates, as well as *Evidence Boosts*, articles that examine health-care issues where research suggests a clear course of action in health management and policy. Both *Mythbusters* and *Evidence Boosts* are available at the foundation's website, [www.chsrf.ca](http://www.chsrf.ca)

#### **4.4.1.3 Books and Book Chapters**

For the purposes of this handbook, books and book chapters fall into two categories. The first includes academic books and volumes, where both the writer(s) and intended audience(s) are researchers. The second category includes books and volumes meant for broader audiences of not only researchers, but also policymakers, service providers, and the general public. As the aim of this handbook is to provide information about knowledge sharing among researchers, policymakers, and service providers, the focus here is on books and volumes written for broader audiences.

Books, whether written by one author or containing a collection of contributions by many authors, allow extensive discussion of a topic area. A collection by many authors may include contributions from diverse sources such as researchers, policymakers, and service providers, each offering different points of view on the same subject.

Although books can be extremely useful for in-depth knowledge sharing, they are only effective if potential readers are aware of their existence and the books are easily accessible. If the target audience(s) are severely limited by time, an entire book on a particular subject may not be an efficient way to capture their attention.

An extensive discussion on publishing is beyond the scope of this handbook. For information about opportunities in book publishing, university presses may be a good place to start. For example, see [www.uap.ualberta.ca](http://www.uap.ualberta.ca), the University of Alberta Press website.

#### 4.4.1.4 Newsletters

Newsletters, typically a collection of articles on organizational activities and related topics, can be useful for raising awareness of new ideas and innovations, and also to promote knowledge-sharing activities. Newsletters can reach a broad audience, especially if available both in print and electronic versions. However, because many newsletter articles are intended to reach a broad audience requiring that content be generalized and limited in length, newsletters may be unsuitable for detailed communication.

CUP's newsletter, *CUPdate*, is published twice a year and is intended to highlight CUP's activities and to inform readers of other events, organizations, and research that may be of interest to those working with children, youth, and families. Articles are short and to the point, with additional sources of information listed for readers interested in knowing more.

For examples of newsletters, see *CUPdate*, available at [www.cup.ualberta.ca](http://www.cup.ualberta.ca) (see Documents/CUPdates), and CHSRF newsletters, available at [www.chsrf.ca](http://www.chsrf.ca)

#### 4.4.1.5 Media Advisories and Releases

Media advisories and releases are documents sent to the media with the goal of attracting press coverage. **A *media advisory* is a brief tip sheet designed to attract the attention of assignment editors and the attendance of news reporters to an event.**<sup>41</sup> **A *media release* is more extensive than an advisory and contains the entire news story, providing all of the information needed for media coverage.**

A media advisory should contain:<sup>41</sup>

- Who: who is hosting the event?
- What: what is the event?
- When: on what date and time the event will occur?
- Where: where will the event will occur?
- Why: why this event is occurring?
- Names of individuals involved.
- Directions to the location if applicable.
- A contact name and phone number.

A media release should contain:<sup>41</sup>

- Logo or letterhead of the organization.
- Date of issue.
- Release date.
- Contact name and phone number.
- Headline.
- The most important fact or idea in the lead paragraph (the hook).
- Brief summary of the event.
- Concise quotes from the event.

A well-written media release will often be used for the bulk of a news story,<sup>41</sup> so it is important to ensure that all of the facts that should be included are present in the media release.

Examples of CUP's media advisories and releases are available at [www.cup.ualberta.ca](http://www.cup.ualberta.ca) (see Documents/Media Advisories and Releases).

<sup>41</sup> Human Rights Campaign Foundation. (2006). *How to create a news release or media advisory*. Retrieved November 30, 2006 from [http://www.hrc.org/Content/NavigationMenu/Coming\\_Out/Get\\_Informed4/National\\_Coming\\_Out\\_Day/Tools/Creating\\_New\\_Releases\\_and\\_Media\\_Advisory.htm](http://www.hrc.org/Content/NavigationMenu/Coming_Out/Get_Informed4/National_Coming_Out_Day/Tools/Creating_New_Releases_and_Media_Advisory.htm)

## 4.4.2 Speaking

Spoken knowledge-sharing strategies described in this handbook include conferences, lectures and presentations, workshops, conversation sessions, and meetings.

### 4.4.2.1 Conferences

Although scientific conferences have traditionally been events for researchers to present and discuss their work,<sup>42</sup> increasingly researchers, policymakers, and service providers are networking at conferences on areas of shared interest. Conferences are usually a mix of workshops, lectures, and presentations, lasting from one to several days in duration. As conferences often draw participants from larger geographic areas, one advantage is the opportunity to bring together individuals who would not have the chance to interact face-to-face with one another on a day-to-day basis. Conferences may support intense participation in knowledge sharing on one or several related topic areas. Beyond the knowledge shared at conferences, opportunities for networking may support the formation or expansion of knowledge-sharing communities.

Unfortunately, conferences require a huge investment of time and resources by organizers, often more than what is available to many organizations and professional communities. Depending on the target audiences, costs of travel and related expenses to attend may be prohibitive. The time required to participate for a full day or a number of days may be particularly limiting to service providers and policymakers.

### 4.4.2.3 Lectures and Presentations

Lectures and presentations may be particularly appropriate for sharing theoretical knowledge. Large numbers of participants can usually be accommodated, particularly when there are minimal interactive elements.

The Canadian Health Services Research Foundation offers the following recommendations for preparing and delivering research presentations.<sup>43</sup>

When preparing a presentation:

- Identify the area of impact where the research is applicable.
- Construct an appropriate message for that particular audience.
- Think about the context in which the message will be received.
- Create a “no surprises” environment by engaging the audience early in the research process.

During a presentation:

- Explain “why are we here?” as soon as possible.
- Use plain language and state key messages up front.
- Focus on the implications of research.
- Be honest about the research limitations and generalizability of the findings.
- Establish credentials of researcher(s)/presenter(s) briefly.
- Use humour, energy, and style when appropriate.

<sup>42</sup> Academic conference. (2006). In *Wikipedia, the free encyclopedia*. Retrieved November 28, 2006, from [http://en.wikipedia.org/wiki/Academic\\_conference](http://en.wikipedia.org/wiki/Academic_conference)

<sup>43</sup> Canadian Health Services Research Foundation. (2002). *Communication notes: How to give a research presentation to decision makers*. Retrieved November 28, 2006 from [http://www.chsrf.ca/knowledge\\_transfer/pdf/cn-1325\\_e.pdf](http://www.chsrf.ca/knowledge_transfer/pdf/cn-1325_e.pdf) (While the source aims to give advice specifically to researchers giving presentations to decision-makers, the language was adapted for the handbook for more universal application among researchers, policymakers, and service providers.)

#### 4.4.2.4 Workshops

Workshops are training sessions typically ranging from a few hours to a few days in length. Workshops tend to require active engagement from participants<sup>44</sup> with emphasis on problem-solving and hands-on training. The interactivity of workshops places a limit on the possible number of participants; however, break-out groups and other workshop strategies may be used to accommodate higher numbers of participants.

Workshops can have a variety of formats, but are essentially a group of people coming together to share problems, learn from each other, change practices, and find solutions.<sup>45</sup> One source recommends that when organizing a workshop, five essential steps are needed.<sup>45</sup>

- Decide on an appropriate format for the workshop.
- Choose a suitable venue.
- Ensure the content is relevant to the group.
- After each content section and at the end of the workshop, make a list of outcomes/recommendations/steps for action to ensure that emerging ideas are summarized.
- Stay on schedule.

Resources for workshop planning are widely available online and in print. A Google search with the keywords “how to plan a workshop” yields a number of hits, and books on facilitating workshops can be found at local libraries or bookstores.

#### 4.4.2.5 A Closer Look: Conversation Sessions

Less common than workshops, lectures, and presentations, conversation sessions (also known as consultation sessions), are beginning to appear at conferences. **A *conversation session*, typically one to two hours long, consists of a short presentation on a specific topic, followed by a discussion involving all in attendance.**

In June 2006, CUP hosted a conversation session at the Canadian Psychological Association convention, held in Calgary, Alberta. The session was about knowledge-sharing barriers, with a particular focus on how these barriers may be overcome. Six attendees participated in addition to the facilitator. After a brief presentation about CUP’s knowledge-sharing activities, a lively discussion ensued on knowledge-sharing experiences and approaches.

A conversation session at a large conference may bring together individuals from diverse backgrounds that may otherwise not have found another. Such sessions may be a promising knowledge-sharing strategy that warrants further attention as a possible approach at conferences.

<sup>44</sup> Workshop. (2006, November 28). In *Wikipedia, the free encyclopedia*. Retrieved November 28, 2006, from <http://en.wikipedia.org/wiki/Workshop>

#### 4.4.2.6 Meetings

Outside of formal knowledge-sharing contexts, any meeting or gathering of people with common interests may present opportunities for knowledge sharing. CUP's experience working with researchers, policymakers, and service providers has resulted in valuable insights into the cultures within which each group operates, and has increased understanding of one another's knowledge-sharing needs.

*EffectiveMeetings.com* offers a wealth of articles about meeting basics, planning, and tools, and books about meeting planning can be found at local libraries and bookstores.

#### 4.4.3 Online

Given the power attributed to face-to-face interaction in knowledge sharing, the use of online communication tools for knowledge sharing requires further study to determine whether they can replace face-to-face opportunities. If a group of people does not already share knowledge, have plenty of contact, and understand what insights and information will be useful to one another, creating a community with information technology is not likely to be effective.<sup>45</sup> However, if a community has been established already, online knowledge-sharing strategies can provide space for a group to maintain contact even when large distances and other barriers limit face-to-face interaction. Therefore, where possible, online knowledge-sharing strategies should be used to support existing knowledge-sharing communities rather than be considered as stand-alone knowledge-sharing activities.

In this section, websites, discussion forums, and email listservs are considered. Although many more online tools exist that may be useful in knowledge sharing, the three addressed here are very common and likely to be familiar to most handbook readers.

##### 4.4.3.1 Websites

Websites are the least interactive of the three online strategies discussed here. However, advances in website design and online technologies are resulting in increased website interactivity. Contents of websites are typically authored by one or several individuals, sometimes representing an organization, and may leave users with little input as to the content available online.

Websites are most like lectures and presentations in that they primarily put information "out there" for consumption, with opportunities for providing feedback varying greatly between websites. However, websites have the potential to reach wider audiences than lectures and presentations as anyone interested in a particular topic or organization can access a website as long as they have a computer and an Internet connection.

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<sup>45</sup> McDermott, R. (1999). Why information technology inspired but cannot deliver knowledge management. *California Management Review*, 41(4), 103-117.

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As the web increasingly becomes a common resource people turn to when seeking information, websites become critical to knowledge sharing. Websites may represent an organization's first contact with an individual. Given the sheer amount of information available online, well-designed websites are necessary to keep users interested and engaged with the content.

The recent redesign of CUP's website was an extremely time-consuming process. With the creation of content already taking up significant resources, the decision to contract out the website design and backend software components was a prudent one.

A *Google* search for "good website design" yields numerous hits, and books on website design and managements are widely available at local libraries and bookstores.

#### **4.4.3.2 Discussion Forums**

Online discussion forums, also known as message boards, internet forums, and bulletin boards are web-based applications<sup>46</sup> that support ongoing discussions. Discussion forums are usually focused on particular topic areas, and led by forum moderators whose role is to keep discussions on topic and to censor abusive behavior. The degree to which moderators intervene and are actively involved in the day-to-day activity of a particular forum varies.

Empirical research findings on the degree to which discussion forums are effective as a knowledge-sharing activity were not found during the preparation of this handbook; however, CUP's experience with forums suggests a few possible advantages and disadvantages.

Possible advantages include:

- Interactive discussions that are not limited by geographical location.
- Records of previous discussions as posts to a forum can be automatically archived. This practice permits discussions to be traced back to the beginning and examined to determine how they evolved over time.
- Knowledge-sharing communities that may develop when individuals participate regularly, especially if this is supported by opportunities to interact face-to-face.

Possible disadvantages include:

- Difficulty gaining momentum, particularly when a forum is first formed and there may be limited or no shared history between potential participants.
- Requirements for users to have a certain degree of comfort with online software.
- The double-edged sword of anonymity: while anonymity may inspire candidness in controversial discussions, being protected from identification may also escalate conflict (leading to flaming).<sup>47</sup>
- New users may find the social norms of online forums, "netiquette", obscure or difficult to adhere to.

<sup>46</sup> Web-based applications require no additional software from the user end; usually all that is needed to use web-based applications are web browsers such as Internet Explorer, Netscape, Firefox, or Safari.

<sup>47</sup> Flaming is the act of posting messages that are deliberately hostile and insulting on discussion boards. From Flaming. (2006, December 1). In *Wikipedia, the free encyclopedia*. Retrieved December 1, 2006, from [http://en.wikipedia.org/wiki/Flame\\_war](http://en.wikipedia.org/wiki/Flame_war)

#### 4.4.3.3 A Closer Look: The Rise of Wikis

A *wiki* is a type of website that is editable by online visitors, allowing for collective creation of content.<sup>48</sup> Perhaps the best known among wikis is *Wikipedia, the Free Encyclopedia*, which is written collaboratively by volunteers. Accessible in multiple languages, more than five million articles are now available, with more than 1.5 million in the English-language version alone.<sup>49</sup> Although there has been significant controversy concerning the quality of content, given that essentially anyone with an internet connection may contribute, a comparison between Wikipedia and Encyclopedia Britannica indicated that the accuracy in a sample of natural science articles was similar.<sup>50</sup>

Although an extensive discussion on the reliability of *Wikipedia* and other wikis is beyond the scope of this handbook, the collectively constructed nature of wiki content suggest that wikis may be a promising knowledge-sharing strategy, as knowledge on these websites is constructed by website users. Arguably, wikis may be a peer-review type of knowledge-sharing process: if users believe that the content of a wiki is incorrect or incomplete, they can edit the article or discuss their concerns with other users on discussion forums. As all contributed content is always subject to editing and discussion by other users, wikis may provide a way to share knowledge that allows all stakeholders to contribute as equals, rather than having experts disseminate knowledge to non-experts.

#### 4.4.3.4 Email Listservs

*Email listservs*, also known as electronic mailing lists, are a special use of e-mail that facilitates the distribution of information to many users.<sup>51</sup> Listservs are typically organized around a shared interest of some sort and have a list “owner,” who is responsible for setting the guidelines around acceptable content and behavior of subscribers. A number of mailing list software programs make mailing-list administration accessible to anyone who is moderately web-savvy.

Email listservs, in addition to their accessibility by relative large numbers of people, share some of the advantages of discussion forums in their ability to foster interactivity and automatic archiving of messages. However, dependence on the listserv administrator may be greater than dependence on forum moderators in that established forums tend to self-police within the forum in reaction to undesirable behavior. With a listserv, more responsibility may be placed on the listserv administrator when use of the mailing list is inappropriate.

<sup>48</sup> Wiki. (2006, December 12). In *Wikipedia, the free encyclopedia*. Retrieved December 12, 2006, from <http://en.wikipedia.org/wiki/Wiki>

<sup>49</sup> Wikipedia. (2006, December 12). In *Wikipedia, the free encyclopedia*. Retrieved December 12, 2006, from <http://en.wikipedia.org/wiki/Wikipedia>

<sup>50</sup> Giles, J. (2005). Internet encyclopaedias go head to head. *Nature*, 438(7070), 900-901.

<sup>51</sup> Electronic Mailing List. (2006, December 1). In *Wikipedia, the free encyclopedia*. Retrieved December 1, 2006, from [http://en.wikipedia.org/wiki/Electronic\\_mailing\\_lists](http://en.wikipedia.org/wiki/Electronic_mailing_lists)

## CHAPTER 5 - LOOKING AHEAD AT KNOWLEDGE SHARING

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This chapter concludes the handbook with a discussion on knowledge-sharing research and evaluation as a way to advance the knowledge-sharing domain. *Section 5.2, A Closer Look: Mobilizing Knowledge About Development*, highlights a three-year project at CUP that aims to increase capacity for community-based research through knowledge-sharing activities along with a thorough evaluation of those activities.

The handbook ends with a vision for the future that entails the need to promote a knowledge-sharing culture, where evidence-based practice and decision making is the norm. Suggestions are provided for how researchers, policymakers, and service providers can work together to promote the healthy development of children, youth, and families.

### **5.1 Knowledge-Sharing Research and Evaluation**

Given the lack of research evidence on knowledge-sharing effectiveness, the study of knowledge-sharing activities could enhance understanding of what works across various circumstances. Tracking the outcomes of current knowledge-sharing activities may inform future activities and the development of knowledge-sharing theories. These theories, in turn, could be tested to enhance the art and science of knowledge sharing.

#### **5.1.1 Evaluation or Research? A Matter of Scope**

Evaluation and research about knowledge-sharing share significant overlap. CUP makes a conceptual distinction between evaluation and research. On the one hand, CUP considers knowledge-sharing evaluation as a specific measure of success for a particular knowledge-sharing activity, with the goal of addressing questions such as:

- What was learned through this knowledge-sharing activity?
- How did participants feel about this knowledge-sharing activity?
- What could have been done differently?

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On the other hand, knowledge-sharing research seeks answers to broader questions such as:

- Which knowledge-sharing activities are best suited to particular target audiences?
- What do different target audiences bring to knowledge sharing that may impact their knowledge-sharing experiences?
- Which knowledge-sharing activities are best suited to particular content areas?
- What are the strengths and limitations of different knowledge-sharing activities?

Furthermore, research also has a stronger focus than evaluation on theory-building and theory-testing. Research can also respond to these questions:

- What characteristics make certain knowledge-sharing activities more effective than others, and how can those characteristics be applied to other knowledge-sharing activities to increase their effectiveness?
- To what degree does a theory accurately describe the knowledge-sharing process? (For example, how well does the diffusion of innovations theory explain knowledge sharing?)

The degree to which individuals and organizations will engage in knowledge-sharing evaluation and research may vary. However, both evaluation and research activities may contribute to building a body of evidence on knowledge sharing.

## **5.2 A Closer Look: Mobilizing Knowledge About Development (MKAD)**

CUP began a three-year project on knowledge mobilization<sup>52</sup> in partnership with the Alberta Centre for Child, Family and Community Research (ACCFRC) in September 2006. The MKAD project has three initiatives, with two learning initiatives focused on building capacity in community-based research. In addition, an evaluation initiative focused on evaluation and research of the learning initiatives as well as other knowledge-sharing activities is intended to increase understanding of knowledge-sharing processes.

The learning initiatives include a Graduate Certificate Program and a Community Workshop Series. The former will be designed to create opportunities for graduate students to develop skills and knowledge about community-based research (CBR). The workshop series will be designed to build capacity for community service providers and policymakers to engage in CBR.

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<sup>52</sup> *Knowledge mobilization* refers to the movement of knowledge into application; knowledge sharing, defined as the process of exchanging knowledge among researchers, policymakers, and service providers (see *Introduction*), is a critical component of knowledge mobilization.

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The evaluation initiative is intended to evaluate and research current knowledge-sharing activities to contribute to a body of evidence on knowledge sharing. For example the following questions may be investigated:

- How are the Graduate Certificate Program and the Community Workshop Series developing community and campus capacity to engage in CBR?
- How effective are workshops about CUP research project outcomes in promoting linkage and exchange among researchers, policymakers, and service providers?
- How are ACCFCR knowledge-transfer symposia facilitating knowledge sharing among researchers, policymakers, and service providers?

The evaluation initiative is also intended to test theories that may be applicable to knowledge sharing, such as the diffusion of innovations theory.<sup>53</sup> For example, some of the questions to be addressed are:

- Does knowledge get “adopted” through the innovation-decision process as described in diffusion of innovations theory?
- At what stage of the innovation-decision process do various knowledge-sharing activities have the most impact?

The evaluation initiative was formulated to increase the effectiveness of local knowledge-sharing activities, while at the same time contributing to a much-needed body of about knowledge sharing. Together, the three initiatives are intended to promote knowledge sharing through capacity building, evaluation, and research.

The MKAD project is funded by the Knowledge Impact in Society program, a funding initiative administered by the Social Sciences and Humanities Research Council of Canada, with matched funding from ACCFCR and the University of Alberta.

For more information about the MKAD project, please visit [www.cup.ualberta.ca](http://www.cup.ualberta.ca) or contact the MKAD project staff:

Sherry Ann Chapman  
MKAD Learning Coordinator  
P: 780.492.9551  
E: [sherryann@ualberta.ca](mailto:sherryann@ualberta.ca)

Lily Tsui  
MKAD Knowledge-Sharing Coordinator  
P: 780.492.0394  
E: [lily.tsui@ualberta](mailto:lily.tsui@ualberta)

<sup>53</sup> Rogers, E. M. (2003). *Diffusion of innovations* (5<sup>th</sup> ed.). New York, NY: Free Press. (See Section 2.4.1, *A Closer Look: Diffusion of Innovations Theory* in Chapter 2).

### **5.3 Promoting a Knowledge-Sharing Culture**

Although theoretical and practical developments in knowledge sharing are still needed, this need should not discourage individuals and organizations from participating in knowledge-sharing activities. As long as the available information is taken into account and new knowledge incorporated when it becomes available, knowledge sharing activities are still evidence-based.

Based on what is known to date, knowledge sharing is more than just communications. Beyond making information available, the goal of knowledge sharing should be focused on making knowledge available in meaningful ways and encouraging researchers, policymakers, and service providers to work together in ways that will incorporate new knowledge as it arises and sharing in the creation of knowledge.

#### **5.3.1 Meeting in the Middle: Finding Common Ground**

While empirical evidence for effective knowledge-sharing practices are limited, some recommendations can be made to assist researchers, policymakers, and service providers in working together to maximize knowledge-sharing success. The following recommendations are based on CUP's experiences as a facilitator of research and knowledge sharing among researchers, policymakers, and service providers, and also from the knowledge-sharing resources reviewed for this handbook.

Researchers should:

- Include knowledge sharing as an integral part of the research process: knowledge-sharing activities could be built into the research process, with appropriate resources set aside for such activities.
- Communicate research findings in relevant and accessible ways to service providers and policymakers (for possible strategies, see Chapter 4).
- Consult with policymakers and service providers early in the research process to determine relevant research questions, and improve the likelihood that research findings will be considered and applied in policy and practice.<sup>54</sup>
- Recognize that research evidence will never be the only type of evidence considered in practice and decision-making.<sup>55</sup>

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<sup>54</sup> Canadian Health Services Research Foundation. (2005). *Leveraging knowledge: Tools and strategies for action*. Retrieved November 28, 2006 from [http://www.chsrf.ca/knowledge\\_transfer/pdf/2005\\_workshop\\_report\\_e.pdf](http://www.chsrf.ca/knowledge_transfer/pdf/2005_workshop_report_e.pdf)

<sup>55</sup> Canadian Health Services Research Foundation. (2002) *Knowledge transfer in health*. Retrieved November 28, 2006 from [http://www.chsrf.ca/knowledge\\_transfer/pdf/ktransfer2002\\_e.pdf](http://www.chsrf.ca/knowledge_transfer/pdf/ktransfer2002_e.pdf)

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Policymakers should:

- Communicate with researchers about the information they are seeking, and the types of answers they seek.<sup>56</sup>
- Dedicate time and resources to knowledge-sharing activities.
- Consider research evidence as an important type of information when making a decision.<sup>57</sup>
- Be transparent in decision-making to demonstrate whether and when research evidence is considered in their judgment, even if the decision made does not reflect research findings.<sup>57</sup>
- Implement policies that are “researchable” if they wish to use research as part of decision making.

Service providers should:

- Communicate with researchers about the information they are seeking, and the types of answers that would be most useful to them.<sup>56</sup>
- Dedicate time and resources to knowledge-sharing activities where necessary, incorporating such activities in professional development protocols to make time and resources available.
- Consider research evidence in their day-to-day work, in concert with their professional expertise, integrating both bodies of knowledge when possible.<sup>58</sup>

*“When you cannot prove beyond a doubt that a decision is correct, transparency is essential, to demonstrate use of the best available information and reasoned exercise of judgment.”<sup>57</sup>*

Researchers, policymakers, and service providers may have a long way to go before knowledge sharing becomes an integrated part of daily work. However, by committing to collaboration on an on-going basis, the day may come when the ideas and strategies offered in this handbook become so familiar that such a handbook becomes obsolete. In the meantime, this handbook is shared with the hope that it meets an interim need as a useful resource.

<sup>56</sup> Canadian Health Services Research Foundation. (2001). *If research is the answer, what is the question?* Retrieved November 28, 2006 from [http://www.chsrf.ca/knowledge\\_transfer/pdf/research\\_e.pdf](http://www.chsrf.ca/knowledge_transfer/pdf/research_e.pdf)

<sup>57</sup> Canadian Health Services Research Foundation. (2002) *Knowledge transfer in health*. Retrieved November 28, 2006 from [http://www.chsrf.ca/knowledge\\_transfer/pdf/ktransfer2002\\_e.pdf](http://www.chsrf.ca/knowledge_transfer/pdf/ktransfer2002_e.pdf)

<sup>58</sup> Canadian Health Services Research Foundation. (1999). Health services research and... Evidence-based decision-making. Retrieved December 19, 2006 from [http://www.chsrf.ca/knowledge\\_transfer/pdf/EBDM\\_e.pdf](http://www.chsrf.ca/knowledge_transfer/pdf/EBDM_e.pdf)

## GLOSSARY

**Community of practice:** A group of people who regularly interact with one another to share and learn based on their common interests.<sup>59</sup>

**Conversation session:** Conference sessions, typically one to two hours long, with a short presentation on a specific topic followed by a discussion involving all in attendance. Also known as consultation sessions.

**Diffusion of innovations:** A theory formulated to explain the spread of new ideas, with a five-stage innovation–decision process where a decision-making unit moves from knowledge—persuasion—decision—implementation—confirmation as a new idea or innovation is adopted.<sup>60</sup>

**Email listserv:** An electronic mailing list that facilitates the distribution of information to many users.<sup>61</sup>

**Evidence:** Research findings, experiential knowledge, values, beliefs, and other ways of understanding that researchers, policymakers, and service providers draw upon in their practice and decision making.

**Evidence-based practice and decision making:** Actions based on an integrated body of evidence that includes not only research findings but also experiential knowledge, values, etc.

**Grey literature:** Scientific and technical reports, conference proceedings, internal reports, organizational documents, and fact sheets that are not readily available through commercial channels.<sup>62</sup>

**Knowledge broker:** A person whose job within the organization is to build bridges to overcome the culture gap among researchers, policymakers, and service providers.<sup>63</sup>

**Knowledge mobilization:** The movement of knowledge into application. Knowledge sharing is a critical component of knowledge mobilization.

**Knowledge sharing:** The process of exchanging knowledge (skills, experience, and understanding) among researchers, policymakers, and service providers.

**Media advisory:** A brief tip sheet designed to attract the attention of assignment editors and the attendance of news reporters to an event.<sup>64</sup>

**Media release:** More extensive than an advisory, a release contains the entire news story, providing all of the information needed for media coverage.<sup>64</sup>

**Plain language:** The use of clear, straightforward language written for the sake of clear communication.<sup>65</sup>

**Research-practice gap:** The chasm between what is known through research to be effective and what is done in practice.

**Wiki:** A type of website that is editable by online visitors.<sup>66</sup>

<sup>59</sup> Lesser, E. L. & Fontaine, M. A. (2004). Overcoming knowledge barriers with communities of practice: Lessons learned through practical experience. In P. M. Hildreth & C. Kimble (Eds). *Knowledge networks: innovation through communities of practice* (pp. 14-23). Hershey, PA: Idea Group Publications.

<sup>60</sup> p.20, Rogers, E. M. (2003). *Diffusion of Innovations* (5<sup>th</sup> ed.). New York, NY: Free Press.

<sup>61</sup> Electronic Mailing List. (2006, December 1). In *Wikipedia, The Free Encyclopedia*. Retrieved December 1, 2006, from [http://en.wikipedia.org/wiki/Electronic\\_mailing\\_lists](http://en.wikipedia.org/wiki/Electronic_mailing_lists)

<sup>62</sup> Non-Conventional Literature. (2006, December 12). In *Wikipedia, The Free Encyclopedia*. Retrieved December 12, 2006, from [http://en.wikipedia.org/wiki/Grey\\_Literature](http://en.wikipedia.org/wiki/Grey_Literature)

<sup>63</sup> Canadian Health Services Research Foundation. (1999). *Issues in linkage and exchanges between researchers and decision makers*. Retrieved November 28, 2006 from [http://www.chsrf.ca/knowledge\\_transfer/pdf/linkage\\_e.pdf](http://www.chsrf.ca/knowledge_transfer/pdf/linkage_e.pdf)

<sup>64</sup> Human Rights Campaign Foundation. (2006). *How to create a news release or media advisory*. Retrieved November 30, 2006 from [http://www.hrc.org/Content/NavigationMenu/Coming\\_Out/Get\\_Informed4/National\\_Coming\\_Out\\_Day/Tools/Creating\\_New\\_Releases\\_and\\_Media\\_Advisory.htm](http://www.hrc.org/Content/NavigationMenu/Coming_Out/Get_Informed4/National_Coming_Out_Day/Tools/Creating_New_Releases_and_Media_Advisory.htm)

<sup>65</sup> Plain Language. (2006, December 12). In *Wikipedia, The Free Encyclopedia*. Retrieved December 12, 2006, from [http://en.wikipedia.org/wiki/Plain\\_Language](http://en.wikipedia.org/wiki/Plain_Language)

<sup>66</sup> Wiki. (2006, December 12). In *Wikipedia, The Free Encyclopedia*. Retrieved December 12, 2006, from <http://en.wikipedia.org/wiki/Wiki>

## REFERENCES

- Academic conference. (2006). In *Wikipedia, the free encyclopedia*. Retrieved November 28, 2006, from [http://en.wikipedia.org/wiki/Academic\\_conference](http://en.wikipedia.org/wiki/Academic_conference)
- Canadian Health Services Research Foundation. (1998). *Communications primer*. Retrieved November 28, 2006 from [http://www.chsrf.ca/knowledge\\_transfer/pdf/comprimer\\_e.pdf](http://www.chsrf.ca/knowledge_transfer/pdf/comprimer_e.pdf)
- Canadian Health Services Research Foundation. (1999). *Issues in linkage and exchanges between researchers and decision makers*. Retrieved November 28, 2006 from [http://www.chsrf.ca/knowledge\\_transfer/pdf/linkage\\_e.pdf](http://www.chsrf.ca/knowledge_transfer/pdf/linkage_e.pdf)
- Canadian Health Services Research Foundation. (1999). *Health services research and... Evidence-based decision-making*. Retrieved December 19, 2006 from [http://www.chsrf.ca/knowledge\\_transfer/pdf/EBDM\\_e.pdf](http://www.chsrf.ca/knowledge_transfer/pdf/EBDM_e.pdf)
- Canadian Health Services Research Foundation. (2001). *Communication notes: Reader-friendly writing—1:3:25*. Retrieved November 28, 2006 from [http://www.chsrf.ca/knowledge\\_transfer/pdf/cn-1325\\_e.pdf](http://www.chsrf.ca/knowledge_transfer/pdf/cn-1325_e.pdf)
- Canadian Health Services Research Foundation. (2001). *If research is the answer, what is the question?* Retrieved November 28, 2006 from [http://www.chsrf.ca/knowledge\\_transfer/pdf/research\\_e.pdf](http://www.chsrf.ca/knowledge_transfer/pdf/research_e.pdf)
- Canadian Health Services Research Foundation. (2001). *Knowledge transfer: Looking beyond health*. Retrieved November 28, 2006 from [http://www.chsrf.ca/knowledge\\_transfer/pdf/ktransfer\\_e.pdf](http://www.chsrf.ca/knowledge_transfer/pdf/ktransfer_e.pdf)
- Canadian Health Services Research Foundation. (2002). *Communication notes: How to give a research presentation to decision makers*. Retrieved November 28, 2006 from [http://www.chsrf.ca/knowledge\\_transfer/pdf/cn-1325\\_e.pdf](http://www.chsrf.ca/knowledge_transfer/pdf/cn-1325_e.pdf)
- Canadian Health Services Research Foundation. (2002). *Knowledge transfer in health*. Retrieved November 28, 2006 from [http://www.chsrf.ca/knowledge\\_transfer/pdf/ktransfer2002\\_e.pdf](http://www.chsrf.ca/knowledge_transfer/pdf/ktransfer2002_e.pdf)
- Canadian Health Services Research Foundation. (2002). *Productive partnerships: Report on the 2002 CHSRF annual invitational workshop*. Retrieved November 28, 2006 from [http://www.chsrf.ca/knowledge\\_transfer/pdf/2002\\_workshop\\_report\\_e.pdf](http://www.chsrf.ca/knowledge_transfer/pdf/2002_workshop_report_e.pdf)
- Canadian Health Services Research Foundation. (2005). *Leveraging knowledge: Tools and strategies for action*. Retrieved November 28, 2006 from [http://www.chsrf.ca/knowledge\\_transfer/pdf/2005\\_workshop\\_report\\_e.pdf](http://www.chsrf.ca/knowledge_transfer/pdf/2005_workshop_report_e.pdf)
- Electronic Mailing List. (2006, December 1). In *Wikipedia, the free encyclopedia*. Retrieved December 1, 2006, from [http://en.wikipedia.org/wiki/Electronic\\_mailing\\_lists](http://en.wikipedia.org/wiki/Electronic_mailing_lists)

- Estabrooks, C. A., Thompson, D. S., Lovely, J. J. E., & Hofmeyer, A. (2006). A guide to knowledge translation theory. *Journal of Continuing Education in the Health Professions*, 26(1), 25-36.
- Flaming. (2006, December 1). In *Wikipedia, the free encyclopedia*. Retrieved December 1, 2006, from [http://en.wikipedia.org/wiki/Flame\\_war](http://en.wikipedia.org/wiki/Flame_war)
- Giles, J. (2005). Internet encyclopaedias go head to head. *Nature*, 438(7070), 900-901.
- Huberman, M. (1994). Research utilization: The state of the art. *Knowledge & Policy*, 7(4), 13-33.
- Human Rights Campaign Foundation. (2006). *How to create a news release or media advisory*. Retrieved November 30, 2006 from [http://www.hrc.org/Content/NavigationMenu/Coming\\_Out/Get\\_Informed4/National\\_Coming\\_Out\\_Day/Tools/Creating\\_New\\_Releases\\_and\\_Media\\_Advisory.htm](http://www.hrc.org/Content/NavigationMenu/Coming_Out/Get_Informed4/National_Coming_Out_Day/Tools/Creating_New_Releases_and_Media_Advisory.htm)
- Lesser, E. L. & Fontaine, M. A. (2004). Overcoming knowledge barriers with communities of practice: Lessons learned through practical experience. In P. M. Hildreth & C. Kimble (Eds). *Knowledge networks: Innovation through communities of practice* (pp. 14-23). Hershey, PA: Idea Group Publications.
- Lomas, J. (1997). *Improving research dissemination and uptake in the health sector: Beyond the sound of one hand clapping*. McMaster University Centre for Health Economics and Policy Analysis, Policy Commentary C97-1.
- McDermott, R. (1999). Why information technology inspired but cannot deliver knowledge management. *California Management Review*, 41(4), 103-117.
- Non-Conventional Literature. (2006, December 12). In *Wikipedia, the free encyclopedia*. Retrieved December 12, 2006, from [http://en.wikipedia.org/wiki/Grey\\_Literature](http://en.wikipedia.org/wiki/Grey_Literature)
- Plain Language. (2006, December 12). In *Wikipedia, the free encyclopedia*. Retrieved December 12, 2006, from [http://en.wikipedia.org/wiki/Plain\\_Language](http://en.wikipedia.org/wiki/Plain_Language)
- Rogers, E. M. (2003). *Diffusion of innovations* (5<sup>th</sup> ed.). New York, NY: Free Press.
- Schnirer, L., Lynch, S., & Bisanz, J. (2005, September). *Midwife to an elephant: Gestational challenges of developing large, complex, multi-sector, community-based research projects*. Paper presented at CUExpo, Winnipeg, Canada.
- Shortland, M., & Gregory, J. (1991). *Communicating science: A handbook*. Essex, England: Longman Scientific & Technical.
- Wiki. (2006, December 12). In *Wikipedia, the free encyclopedia*. Retrieved December 12, 2006, from <http://en.wikipedia.org/wiki/Wiki>

- Wikipedia. (2006, December 12). In *Wikipedia, the free encyclopedia*. Retrieved December 12, 2006, from <http://en.wikipedia.org/wiki/Wikipedia>
- Workshop. (2006, November 28). In *Wikipedia, the free encyclopedia*. Retrieved November 28, 2006, from <http://en.wikipedia.org/wiki/Workshop>
- Workshop: How to plan a workshop. (2006, December 1). In *Personneltoday.com*. Retrieved December 1, 2006 from <http://www.personneltoday.com/Articles/2004/01/20/21977/workshop-how-to-plan-a-workshop.html>
- Zuzovsky, R. (1994). Utilization of research findings: A matter of research tradition. *Knowledge & Policy*, 7(4), 78-93.