Research and Knowledge Sharing in the North

A Review of the Literature

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# Table of Contents

**MAIN MESSAGES** .................................................................................................................................... 3

**EXECUTIVE SUMMARY** ......................................................................................................................... 4

**CHAPTER ONE: INTRODUCTION** ....................................................................................................... 6

ReSxDA Background ................................................................................................................................................ 7

**CHAPTER TWO: COMMUNITY-BASED PARTICIPATORY RESEARCH** ............................................. 7

What is CBPR? ....................................................................................................................................................... 7

Who is Involved? ................................................................................................................................................... 8

When Does CBPR Take Place? ................................................................................................................................ 9

Why is CBPR Important? ........................................................................................................................................ 9

Summary ............................................................................................................................................................. 10

**CHAPTER THREE: KNOWLEDGE SHARING IN THE NORTH** ........................................................... 10

Terms................................................................................................................................................................... 11

Community-Based Knowledge Sharing ................................................................................................................ 12

Why Do We Need Knowledge Sharing?................................................................................................................ 13

Barriers to Knowledge Sharing ............................................................................................................................. 13

The Northern Audience ....................................................................................................................................... 15

Effective Strategies for Knowledge Sharing in the North...................................................................................... 15

  - Face-to-Face Communication / Workshops, Meetings and Events ................................................................. 15
  - Knowledge Brokers .......................................................................................................................................... 16
  - Media, Television, Radio, Newsletters and other print formats .................................................................... 17
  - Photo and Video .............................................................................................................................................. 18
  - Online Activities ............................................................................................................................................ 18
  - Stories, Talking Circles, and Research Ambassadors ..................................................................................... 19

Summary ............................................................................................................................................................. 20

**APPENDIX: PLAIN LANGUAGE** ......................................................................................................... 21

**RESOURCES** ............................................................................................................................................ 22
Main Messages

Knowledge sharing is the process of exchanging knowledge and information among researchers and communities. It is the bridge between research and action. It includes all steps in the project and is tailored to the audience and the message. There are many different names for the same process. For the ReSDA network we will be using ‘knowledge sharing.’ Knowledge sharing and CBPR principles are connected. Knowledge sharing is context-specific, especially in Aboriginal communities.

There are a number of barriers to knowledge sharing including academic ideals; poor quality of interaction; lack of evidence; misunderstandings, assumptions, and lack of trust; and lack of infrastructure, support, and skills. Northern communities are very different from southern cities, so northern knowledge sharing strategies must be developed in the North. Knowledge sharing is based in person-to-person relations.

Northern knowledge sharing strategies that have been shown to be effective include: face-to-face meetings and workshops; knowledge brokers; media, radio, and newsletters; photos and videos; online activities; and stories, talking circles, and research ambassadors. Face-to-face communication is the most effective knowledge sharing technique.

Plain language is a writing style that provides information in a format that is easy to read and understand. Writing in plain language is important so that a many people, with different levels of reading and writing skills, can understand what you are trying to say. Plain language is especially important for knowledge sharing.

One of the most effective tools to build knowledge sharing relationships is Community-based Participatory Research (CBPR) as this is a research process where the researcher and the community members are equally involved in and contribute to the research project. The most important parts of CBPR are in who is involved and in how they are involved. The foundation of CBPR is relationships. It involves researchers, community members, industry, governments, other organizations, and anyone else who has an interest in the research project. CBPR is important because it is a research process that emphasizes equality and self-determination, which are two things that have been ignored or abused in the past. CBPR often improves the quality of the research and results.
Executive Summary

The communication of research is just as important as the research findings themselves. If no one knows about the findings or understands what they mean, research results are meaningless for the community. Communication must be a dialogue, between the communities, researchers and policymakers, and must include knowledge sharing as a critical part of community-based participatory research practices. The development of natural resources in the North continues to increase, and research interests in the region are also increasing, so it is now more important than ever to involve communities in partnerships that affect them and/or in which they may provide valuable insights. It is crucial to determine the best methods to have communities stay informed and involved in the research projects. This literature review will support the efforts of the Resources and Sustainable Development in the Arctic (ReSDA) network in creating an effective communications strategy.

Community-based participatory research (CBPR) is a research process where the researcher and the community members are equally involved in and contribute to the research project. The most critical parts are in who is involved and in how they are involved, and relationships and trust are the foundation. CBPR is important because it is a research process that stresses equality and self-determination, and often improves the quality of research. A very important part of CBPR is in letting the communities know what is happening and what the research findings are, and in getting feedback from the community members. This is known as knowledge sharing.

Knowledge sharing is the exchange of knowledge and information among researchers, communities, governments, and everyone involved so that research findings are actually useful and understandable. Knowledge sharing is the bridge that turns knowing into doing. It includes all of the steps of the partnership, from before deciding research questions to after sharing and using the information. There are many different names for the process that we call ‘knowledge sharing.’ Some of the more popular ones include ‘knowledge translation’ and ‘knowledge mobilization.’

Knowledge sharing and CBPR are linked. For the best and most effective knowledge sharing, researchers should involve community members and representatives. Involving the community in knowledge sharing can be extremely helpful in developing a communications plan. In Aboriginal communities, it is even more important to include community members, since the local context, traditions, and values are an integral part of their knowledge systems.

There are barriers to knowledge sharing. These include academic hurdles such as tenure; the quality of researcher-community interaction (instead of just the frequency); and a lack of trust between researchers and communities. Other barriers include a lack of support and skills, especially when modern technology is part of the knowledge sharing strategy.
There are several ways to communicate with northern communities. The best and most effective way is through face-to-face interaction and meetings. Putting in the effort to talk and listen to local people is appreciated. Knowledge brokers can also help with knowledge sharing. They are professionals whose job is to act as the middle-person between researchers and non-academics, and to make the points of view of both sides heard. They also make the research information and evidence understandable and accessible.

Radio is one of the best ways to let people in communities know about research and information, since it is one of the most used types of media in the North. People are able to remember a lot more if they hear it on the radio versus reading it on paper. Photos and videos are especially useful in northern communities, because they are some of the most interactive and entertaining types of knowledge sharing. Photos and videos, as well as radio, also remove the barrier of low literacy levels, since people won’t need to read anything to understand the message.

Online knowledge sharing can be useful, but it should always support offline (not on the computer) activities. Technology in the North can be a barrier, so online knowledge sharing may not be as effective or reliable as in the South. Other knowledge sharing strategies include stories and talking circles. These are inclusive and emphasize equality. There is a rich history of oral tradition in Aboriginal communities, so talking and communicating through stories can be powerful tools to convey messages.

Plain language is a writing style designed to be understandable and accessible. It is important to write in this way so that all people can understand what is being said, since not everyone has the same technical skills or vocabulary as researchers and academics. Plain language is all about the reader, and the writer uses tools and techniques that will help the reader through what is written. In plain language, the writer leads the reader down a path, and doesn’t let them get lost in complicated language and information.
Chapter One: Introduction

The communication of research findings is just as important as the research findings themselves, if not more so. If no one knows about the findings or understands what they mean, research endeavors are rendered, for all intents and purposes, futile for the communities involved. Such communication, however, cannot be restricted to academia, or to specific departments within academia, or even to the sectors or industries involved. Rather, communication must occur as a dialogue, involving the public and must include what is known as knowledge sharing; that is, the multi-directional exchange, implementation, and utilization of knowledge between researchers and communities. Where research involves communities, either directly or indirectly, due care must be given to ensuring that community-based participatory research processes are in place and dissemination strategies are mutually agreed upon. Given the increasing development of natural resources in the North, and consequently the heightened research interests in the region, it is now more important than ever to involve communities in partnerships that affect them and/or in which they may provide valuable insights.

This literature review encompasses numerous academic and community-based sources spanning the domains of, among others, participatory research, community-based research, knowledge mobilization, knowledge translation, Aboriginal knowledge translation, traditional knowledge, dissemination, northern research, and plain language resources. Indeed, the scope of the literature is quite large and encompasses many facets of knowledge in community and research contexts. For clarity’s sake, the aspects focused on in this review are community-based participatory research and knowledge sharing, with respect to northern and Aboriginal communities. Knowledge sharing in and of itself requires a substantial amount of supporting context, and thus a portion of this review necessarily explains community-based participatory research and the general characteristics of knowledge sharing. Without this framework, the information provided on knowledge sharing methods and techniques in the North would be meaningless, for successful dissemination operates on a context-specific basis, and there is therefore no one-size-fits-all approach.

This literature review is structured in the following way: first, following the introduction and background information, community-based participatory research will be explored and its tenets as a research process will be defined. Second, knowledge sharing (also called knowledge mobilization) will be defined and explained. Drawing on both community-based participatory research and knowledge sharing, the northern context, including challenges and considerations with respect to a northern audience, will be detailed, as will barriers and best practices.

To date, an extensive literature base exists in the health, geographical, and organizational domains, but very little specifically ties knowledge sharing to resource development, much less in the North. With the literature base this review will provide, ReSDA has the potential to fill such a gap through its various research projects. Additionally, the characteristics of plain
language writing will be outlined in the appendix so as to provide a resource for future communication and the development of a ReSDA communications strategy.

**ReSDA Background**

The Resources and Sustainable Development in the Arctic (ReSDA) network is a Social Sciences and Humanities Research Council of Canada (SSHRC) funded Major Collaborative Research Initiative. ReSDA brings together a broad range of disciplines and organizations, representing universities, colleges, communities, government, the private sector and non-profits in northern Canada and other circumpolar countries. ReSDA is a program that is examining ways of ensuring that a larger share of the benefits from resource development stays in the region with fewer costs to communities. In partnership, and with the substantial support of a wide range of northern actors, the Network will fund a series of research projects around the themes of sustainable regions, sustainable communities, sustainable cultures, and sustainable environments. These research projects will measure and analyze the impacts of resource development and find ways of assisting Arctic communities in dealing with these impacts through a range of new and innovative development and policy tools.

**Chapter Two: Community-Based Participatory Research**

**Acronyms to Know**

CBPR = Community-based Participatory Research

Community-based participatory research (CBPR) is a research ideology, or process, whereby the researcher and the community members are equally involved in and contribute to the research project (Castleden et al., 2012). This involvement fosters collaboration and the multidirectional (that is, between many people) flow of knowledge amongst all involved parties, and ensures that the knowledge gathered and created is equally beneficial for all. Crucial to the success of CBPR is the dissemination of research findings to community members and stakeholders; without this element, CBPR is not particularly useful for the non-academic partners. Also known as knowledge sharing, the dissemination component of CBPR is discussed in chapter three. CBPR is not one-size-fits-all, however. Context is everything, so each project must be tailored to the partnership.

**What is CBPR?**

CBPR is a research process, or framework, that aims to give equal power of and control over the research to both researchers and communities (Castleden et al., 2012; de Leeuw et al., 2012). CBPR is collaborative, relying on trust and relationships, and is flexible: each project is different, with different participants, and so CBPR is flexible and adapts to the needs of each research project - there is no one true method (Castleden et al., 2012; de Leeuw et al., 2012; Hayhurst et
Research and Knowledge Sharing in the North

al., 2013). While CBPR is collaborative, there remains an embedded inequality in the relationship between researchers and participants, especially since the process has been developed as a Western method dealing with primarily non-Western participants (Castleden et al., 2008). To rectify this, community input and support are critical from the initial stages through to after the completion of the project and the dissemination of the results (Institute of Aboriginal Peoples’ Health and Institute of Health Economics, 2011). In short, the most critical part of CBPR is not necessarily in what is studied, or even in where it is studied. It is in who is involved and, perhaps even more importantly, how they are involved.

Who is Involved?

CBPR involves researchers as well as community members, industry, governments and other organizations in the research process. For the purposes of this review, CBPR is defined as involving primarily researchers and communities as the collaborating parties. Contrary to conventional research in communities, where the researcher can be described as a “parachute” researcher (who comes into a community, does his or her research, and then is soon gone without a trace, without communicating with the community before, during or after for input; Castleden et al., 2012), CBPR research is committed to ensuring that the community has a voice as strong as that of the researchers and academics. Especially when the partnership involves Aboriginal or other historically marginalized groups, CBPR aims to amend the power imbalances and severe tensions caused by colonization (de Leeuw et al., 2012). Among the most important people to include are, of course, the researchers and the communities; but more specifically, Elders, tribal councils, youth, and interpreters should be actively involved (Sambaa K’e Dene Band, 2003; Government of Canada, 2013; Minkler et al., 2012; Smylie et al., 2009). Elders are among the most well respected individuals in Aboriginal communities, and can play an extremely influential role in academic-community partnerships, as can other trusted community members. Indeed, as Jagosh et al. (2012: 324) explain, “although community members had reason to mistrust outside researchers, they felt willing to participate because they trusted the judgment of a well-respected and long-standing community member who was already involved.”

Industry representatives and governments, as well as funding agencies, should also be included in the collaboration when appropriate, especially when the research purports to influence policy or decision-making processes (Cherney, 2013; Institute of Aboriginal Peoples’ Health and Institute of Health Economics, 2011; The Examining Community-Institutional Partnerships for Prevention Research Group, 2006). Finally, it is important to note that both men and women must be included in the research process, as they each possess different and complementary types of knowledge:

Women and men are socialized differently, and often function in different spheres of the community. Women and men often know different things. They also possess different knowledge about similar things, use different communication channels to transfer information, and have different interests and needs.” (Grenier, 1998: 32)
Not every research project will require partnerships between all groups, from researchers to communities and Elders; to funding agencies, governments and industry leaders; however, every research project must include all relevant parties who have a vested interest in the project, for it to truly be collaborative.

When Does CBPR Take Place?
In CBPR, there is no one single moment when collaboration is necessary. The process requires that communities are involved at all stages, including before and after the research project itself. The collaborative component happens, to a large degree, during the data collection phase (Castleden et al., 2012), but this does not mean that the participatory nature of the process is exclusive to just this part of the project. Rather, involvement is necessary in all steps of the process. Communities expect researchers to have an understanding of the local cultures and traditions, and to provide information about the proposed collaboration well in advance of the actual project (Jacklin et al., 2008). The context within which the research will take place is crucial, and so the researcher must make every effort to frame the process with a respect of the local values and opinions, and to involve the community in all stages of the process.

Why is CBPR Important?
Research, especially in Aboriginal communities, has historically involved “parachute” researchers, with the researcher entering a community, taking the necessary data and leaving, without leaving a trace or communicating with the community. There has often been a lack of informed consent of the research participants (Martin et al., 2006), and often the research has little relevance for the communities. Further, beyond not being involved in the research, some community members may not even understand what the project is about or why the researcher is there:

People in communities have told us that they aren’t always sure about what researchers do, why they do it and how their research benefits the community. Many Inuit feel they have not been involved enough in the research process. Because of this, there sometimes develops a mistrust of research, and local people may even become angry with researchers who intrude into their daily lives. (Inuit Tapitiit Kanatami, n.d.: 20)

This lack of trust only serves to reinforce the existing inequalities and barriers between researchers and research participants. For a truly collaborative and participatory project, these barriers must be taken down. CBPR is important because it is a research process that stresses equality and self-determination, which are two things that have historically been ignored or altogether abused. Furthermore, CBPR can and often does improve the quality of the research and results due to the incredible insights and knowledge of the local population (Fletcher et al., 2008).
Summary

- Community-based Participatory Research (CBPR) is a research process where the researcher and the community members are equally involved in and contribute to the research project.
- The most critical parts of CBPR are in who is involved and in how they are involved.
- The foundation of CBPR is relationships.
- CBPR involves researchers, community members, industry, governments, other organizations and anyone else who has an interest in the research project.
- CBPR is important because it is a research process that stresses equality and self-determination, which are two things that have historically been ignored or abused.
- CBPR often improves the quality of the research and results.

Chapter Three: Knowledge Sharing in the North

Knowledge is like fine wine. The researcher brews it, the scientific paper bottles it, the peer review tastes it, the journal sticks a label on it, and archive systems store it carefully in a cellar. Splendid! Just one small problem: wine is only useful when somebody drinks it. Wine in a bottle does not quench thirst. Knowledge translation opens the bottle, pours the wine into a glass and serves it. (Bennett and Jessani, 2011: 1)

Knowledge sharing, also known as knowledge mobilization or knowledge translation, is the process of exchanging knowledge and information among researchers, communities, governments and all involved parties in order to increase and improve overall efficiency and the implementation of research findings. Knowledge sharing is the middle ground between research and action (Arctic Institute of Community-Based Research, n.d. b), and includes all the steps between the creation and the application of knowledge (Canadian Institutes of Health Research, 2004). According to the Canadian Institutes of Health Research (CIHR), knowledge translation (sharing) is the “exchange, synthesis and ethically-sound application of knowledge - within a complex system of interactions among researchers and users - to accelerate the capture of the benefits of research for Canadians through improved health, more effective services and products, and a strengthened health care system” (Ibid: 3). Knowledge sharing stems from the recognition that it is necessary to make research results accessible and relevant if they are to be meaningful to potential users (Bowen et al., 2005).
Knowledge sharing is not just the final product of a research collaboration. Rather, it is a process that operates in what Levin (2008) calls a “tripartite frame,” which includes the creation, dissemination, and usage of knowledge. Moreover, knowledge sharing is not simply about providing the information to relevant parties and expecting them to do something with it. Knowledge must be shared and transferred in such a way that it changes the behaviour of the knowledge users (Bussières et al., 2008); it must increase the possibility that the research evidence will be used in practice (Adair et al., 2007). Knowledge sharing involves the transfer of information, but also of skills (Tsui et al., 2006) in order to increase capacity in the research users.

Such an increase in capacity and knowledge is extremely important in order for appropriate changes to be made and decisions to be enacted. The Social Science and Humanities Research Council of Canada acknowledges this importance and has as a mandate that it will

...facilitate and enable the accessibility and impact of research by increasing and enhancing the flow of research knowledge among researchers, and between researchers and knowledge users; improve research connections by facilitating reciprocal relationships between researchers and knowledge users for the (co-)creation and use of research knowledge; and enhance the quality of knowledge mobilization by developing networks, tools, and best practices. (2009: 1)

To achieve the uptake of knowledge, it is also important to synthesize the information into a form that is easily understandable and applicable. As Grimshaw et al. (2006) emphasize, an integral component of knowledge sharing is knowledge synthesis, where the evidence and information is tailored to the needs and capabilities of the research users.

In summary, knowledge sharing is not only the end product of a research process. Instead, it includes all of the steps included in the collaboration, from even before the creation of knowledge to after its implementation and utilization. Knowledge sharing is tailored to the audience and has as its goal the uptake and use of new evidence.

Terms

There are a multitude of terms to refer to a similar, if not identical, process as knowledge sharing. There are at least 90 terms, including knowledge mobilization, knowledge exchange, knowledge transfer, research utilization, implementation science, dissemination and diffusion (The Knowledge Mobilization Network, 2012; Heyland et al., 2010). There are small differences between the terms that distinguish one from another, but they are by-and-large describing the same process. Main methodological challenges arise in the process chosen as opposed to in the term given; there are, for example, a number of different definitions for the term ‘knowledge translation,’ yet they all rely on this same designation.
From the review of the terminology, the ReSDA network is using the term “knowledge sharing,” which is when researchers and communities not only receive, contribute to and understand the research information that’s created, but put it into action. Knowledge sharing is the bridge that turns “knowing” into “doing,” and is synonymous with knowledge “mobilization.” Knowledge sharing is a controlled spread of information and is tailored to a target group. Similarly, dissemination is an active effort to transfer new knowledge and information in a controlled way to a particular audience; diffusion, on the contrary, refers to an uncontrolled spread of information (Green et al., 2009), much like an uncontrolled wildfire. Diffusion as a means to spread information is not ideal; such passive measures do not have the capacity to assess and monitor whether an intervention, or communication strategy, has been effective. In order to influence behaviour and prompt change, which is the ultimate goal in knowledge sharing, active dissemination strategies must be chosen. Even better is a collaborative dissemination strategy, which connects both knowledge sharing and community-based participatory research processes.

**Community-Based Knowledge Sharing**

Even though knowledge sharing is a requirement of community-based participatory research (CBPR), the opposite is not always the case. For the most thorough and effective knowledge sharing, active community involvement from the earliest stages of the research process is crucial. Incorporating CBPR into knowledge sharing methods allows for the production of far superior dissemination results.

Where conventional research is seen as a one-way transfer, CBPR is seen as a two-way, or multi-way, transfer of knowledge (Castleden et al., 2012). Embedding CBPR into knowledge sharing, therefore, should yield an exchange between and amongst groups of many different people and levels of understanding. Knowledge sharing, as its name suggests, encompasses more than just throwing information at a given group. It involves delivering the information with due care as to the levels of comprehension and the styles of thinking of the target audience and being receptive to feedback, challenges to the evidence, and new knowledge from community members, so that the end result is a “shared” product (Tsui et al., 2006; Jacklin et al., 2008). This sharing process has been referred to as ‘integrated knowledge mobilization’ by the CIHR, and is based in participatory research principles, ‘integrating’ the community into the dissemination efforts (Arctic Institute of Community-Based Research, n.d. b).

Involving communities in a knowledge sharing process is beneficial for more than merely the transfer of information. Developing a communications strategy, which involves communities in all stages of the research, can be exceptionally important in gaining support for the project and can lead to greater accrued benefits (Inuit Tapitiit Kanatami and Nunavut Research Institute, 2007). Such a communications plan will ensure that the dissemination methods chosen are relevant and will be properly received by the community. Knowledge sharing is only as effective
as its reception, and poor uptake of new information can be caused by a disregard for local values and paradigms (German et al., 2008). It is not enough to assume that the message will be understood; active efforts must be made at incorporating the message into the understandings and knowledge systems of the community in which it is to be received.

With respect to northern Aboriginal communities, it is crucial that any knowledge sharing efforts are defined by the local context, values, and traditions. This is done to improve the relationships between researchers, communities, and government, as well as to develop better programs and policies that will be more useful and relevant for the community members (Smylie et al., 2003 cited in Martin et al., 2006).

**Why Do We Need Knowledge Sharing?**

Information is extremely important in all aspects of society. By itself, though, it does not accomplish much. This information must be made accessible and relevant for it to be useable. For it to be useable, in turn, it must be shared and transformed into a format that is appropriate for the group or community involved. Knowledge is not a stand-alone solution to a given problem and it is not enough to expect behaviours and opinions to change by simply telling people about the evidence; making the evidence understandable is an important first step, but the end goal is to ensure it is used and implemented (Levin, 2008; Bowen et al., 2005). Knowledge sharing is advantageous in that it incorporates the strengths and skills of many different groups, so that the end result takes into account the insights, networks and expertise of both the researchers and the communities (Parry et al., n.d.). Furthermore, knowledge sharing and translation add credibility and trust to the research project, both of which are vital components in ensuring that the information is used (Dobbins et al., 2004a cited in Clark, 2008). As Bennett and Jessani (2011: 105) have said, “communication is the single most visible activity we engage in, requiring extra delicacy - say the wrong thing or present badly and the damage could be severe and lasting.”

**Barriers to Knowledge Sharing**

Knowledge sharing is neither a seamless nor a resistance-free occurrence. Despite its recognition as an ideal dissemination process, a significant barrier exists in the tenure-oriented focus of academia, and in the lower academic merit that CBPR projects garner (Jacbson et al., 2004). Aside from academic hurdles, the barriers between researchers and communities do exist and can lead to a postponement or outright failure of the knowledge sharing efforts. These barriers can include quality of interaction; lack of evidence; misunderstandings, assumptions, and lack of trust; and lack of infrastructure, support, and skills.

Interaction between researchers and communities has been cited as one of the most important factors in determining the success of a research collaboration (Almeida and Bascolo, 2006; Bowen et al., 2005). A lack of investment can be the nail in the coffin of a research project,
especially in CBPR. This investment is often measured in how much interaction takes place, and how often interrelations between researchers and communities are developed. A more appropriate measurement, in addition to that of frequency, may lie in the quality of the interaction; some efforts at collaboration have failed, despite the frequency of the interactions, due to poor quality (Bowen et al., 2005).

Lack of evidence is a barrier to knowledge sharing, because there is no evidence or information to be exchanged; it is not necessary to elaborate on this point as it is relatively straightforward. Lack of trust as a barrier, however, is considerably more complex and does require further explanation. Trust is essential to successful CBPR and thus, successful knowledge sharing. When there is a lack of trust, the relationship may no longer be perceived as an equality, and one side may worry about being exploited by the other. There exists a “two-cultures” hypothesis, which explains that community members and academics (researchers) exist and work in two different spheres (Bowen et al., 2005). These spheres may not overlap, or the amount of interaction and exchange between the two may be limited (Lomas, 1997). This fragmented “partnership” can lead to severe misunderstandings and assumptions throughout the research process, and can ultimately affect the sustainability of the relationship and the effectiveness of any knowledge sharing undertaken (IPHRC, 2005).

As CBPR is a human-oriented process (that is, it relies on communication and person-to-person interaction), many of the barriers to knowledge sharing involve interpersonal issues. There are, however, substantial technological and capacity-oriented barriers that can inhibit the success of knowledge sharing efforts. Ironically, the larger the technological gap between provider and receiver (in this case, researchers and communities), the more potential there is to fill that gap but the lower the chance that such efforts will succeed (Roux et al., n.d.). Northern communities, especially, may not have the technological infrastructure equivalent to that of academia.

A lack of human capacity, with regards to the skills necessary for research, also presents a barrier to knowledge sharing. Since engaging the community in the research itself is critical to effective knowledge sharing and dissemination, it is extremely important to ensure that the community participants have the skills necessary to undertake the research, understand and be able to share the results, and provide feedback. In northern communities, research-specific skills are not as prevalent as in large urban centres, so finding people who have the requisite qualifications can be difficult. People must receive training to gain these skills: “if you hire someone with limited skills, you will need to help them develop and deliver the program and services. Often, people are hired and then do not get the support they need to be successful in their job. Hiring people that don’t have the skills and not supporting them sets them up for failure” (Nunavut Literacy Council, n.d.: 103).
The Northern Audience

Northern communities, in particular northern Aboriginal communities, differ significantly from their southern, urban counterparts; therefore, communication strategies will differ accordingly. Policies created out-of-context can be useless, at best, and detrimental, at worst, for northern communities. Significant contextual differences arise in terms of culture, socio-economic and ecological considerations, and remoteness (Ferreira, 2006). Context is particularly important in Aboriginal communities, so all interactions must be defined by the Indigenous context in which they take place: culture, traditions, and values; and all knowledge sharing must be implemented with respect to such context and the means of communication that are most appropriate for a given community (Smylie et al., 2004).

The knowledge generated, translated, and disseminated during knowledge sharing efforts must also rely on this cultural consideration: Aboriginal knowledge must not be discounted for its apparent lack of scientific rigor; and indeed, “the narrow focus and limited attention given to Aboriginal knowledge is antithetical to Aboriginal knowledge generation and application, since its very nature tends to be participatory, communal, experiential, and reflective of localized geography” (Smylie et al., 2004 cited in Martin et al., 2006: 8).

Effective Strategies for Knowledge Sharing in the North

Knowledge sharing is based, for the most part, in interpersonal (person-to-person) relations. The most effective knowledge sharing techniques, therefore, should highlight and support the “human aspect” and not fall victim to solely faceless and impersonal academia or technology. To be sure, technology can be - and is - used to great avail when it is combined with some form of personal interaction. Methods that have proven effective in knowledge sharing include: face-to-face meetings and workshops; knowledge brokers; media, radio, and newsletters; photos and videos; online activities; and stories, talking circles, and research ambassadors. Academic reports and journal articles can also be effective knowledge sharing strategies, given the appropriate audience, but these are among the least desired forms of dissemination by communities and the general public (Martin et al., 2006). The ways in which results and information are presented are important - it must be done in a way that is meaningful for the people in the community (Parlee, 1998).

Face-to-Face Communication / Workshops, Meetings and Events

As a knowledge sharing strategy, face-to-face communication may take the most time and may require the most effort. It is also, however, the most important form of dissemination and can be the determining factor in both the sustainability of the partnership and the uptake of new knowledge (Parry et al., n.d.; Bowen et al., 2005). While knowledge sharing often occurs through formal means, such as organized meetings, much information exchange can happen in informal situations, when the researchers and community members are simply sitting and chatting, or eating a meal together (Martin et al., 2006). The impact and effectiveness of these
informal methods should not be overlooked, and there is no appropriate substitute for this type of communication (Bennett and Jessani, 2011), especially in small communities where technology is depended on less. Face-to-face and interactive communication is preferred in northern communities, where oral tradition is prevalent and the written word may be less effective (Inuit Tapiriit Kanatami and Nunavut Research Institute, 2007). In northern Aboriginal communities, engaging in meaningful conversation with and actively listening to the insights, feedback, and concerns of the community members is seen as vital, and is the cornerstone of relationships built on trust and respect (Castleden et al., 2012).

Workshops are also an effective knowledge sharing method that relies on personal communication and discussion. Workshops are more organized than informal meetings, and also include a greater number of people. They should be interactive and engaging in nature, allowing for problem-solving and planning through discussions and follow-up communication (IDRC, 2003). Workshops are a way for ‘communities of practice’ to come together to discuss ideas and share knowledge. Communities of practice are groups of like-minded individuals in the same field who work around a common issue or topic, in order to improve the overall knowledge and competence of their profession and surrounding professions (Clark, 2008). Communities of practice and workshops can lead to networking, which enhances knowledge sharing exponentially, in addition to allowing for skill- and capacity-building among the participants (IDRC, 2003; German, 2008).

**Knowledge Brokers**

Knowledge brokers are professionals whose job is to mediate the transfer and exchange of information between research providers (researchers and academia) and research users (communities, governments, industries, and all non-academics). Knowledge brokers and, on an institutional level, knowledge translation platforms (Bennett and Jessani, 2011), are research facilitators who overcome the gap that exists between researchers and research users as postulated by the “two-cultures” hypothesis, and make the information accessible, among other things, to non-academics (Tsui et al., 2006; Phipps, 2011).

Knowledge brokers do not just make the process of getting the research evidence and knowledge more accessible and easier to understand; they have the potential to alter the format of the knowledge itself to make it more robust - socially, politically, and economically. This new knowledge can be called ‘brokered knowledge,’ and is more accountable, more usable, and more locally relevant (Meyer, 2010). Knowledge brokering focuses on organizing the process between the producers and users of the knowledge in order to achieve new co-produced and collaborative knowledge (van Kammen et al., 2006).

Knowledge brokers assume a multitude of roles and characteristics. These include: organizing and managing joint forums for policy-makers and researchers; building relationships of trust; setting agendas and common goals; signalling mutual
opportunities; clarifying information needs; commissioning syntheses of research of high policy relevance; packaging research syntheses and facilitating access to evidence; strengthening capacity for knowledge translation; communicating and sharing advice; and monitoring impact on the know-do gap. (van Kammen et al., 2006: 609)

Knowledge brokers, as can be seen from the wide array of roles they take on, are an invaluable asset to any knowledge sharing initiative.

**Media, Television, Radio, Newsletters and other print formats**

The popular press wields a power that, in certain communities, can be unmatched. In many northern communities, radio is one of the most effective communication strategies - especially call-in shows (Inuit Tapitiit Kanatami and Nunavut Research Institute, 2007). Radio is the predominant mode of regular communication in northern communities. Radio allows for community members to be updated on the progress and results of any research being done; receive key messages relates to the research or subsequent policies; and possibly even take on leadership positions by learning how to be announcers and thus become trusted community sources of information (Pearce et al., 2009; McLean, 1997). Radio is most appropriate for an audience that:

- relies on verbal information;
- has limited access to print or visual media;
- communicates in the vernacular;
- does not have time or disposition for lengthy reading;
- is only superficially interested in a topic;
- has limited literacy or low affinity to reading; and
- finds the topic too complex to read about it. (Bennett and Jessani, 2011: 160)

In addition to radio, other local media sources, such as television stations, newspapers, and newsletters, are also valuable methods for effective dissemination (The Examining Community-Institutional Partnerships for Prevention Research Group, 2006). Newsletters can be well-received by the target audience when they are tailored to the needs and abilities of the community members. For example, one newsletter providing information on contaminants included Inuvialuktun translations, interactive word finds and true/false questions, country food recipes, and short articles written by community members (Government of Canada, 2013). This type of newsletter was successful in delivering information related to contaminants because it was developed within the local context and was attentive to the interests and needs of community members. Of course, newsletters are general in nature (as their short length excludes the possibility for detailed information); however, for communicating broad ideas they are an effective knowledge sharing technique.
Photo and Video

Visual communication can be an appealing form of communication and can be an effective knowledge sharing technique, especially when compared to written documents alone. The saying ‘a picture speaks a thousand words’ proves the power in visual media (Hall and Tremblay, 2012). Extensions to the communicable nature of photo and video are participatory photo and video. Participatory photography and participatory video put community members behind the lens, so as to put them in control of choosing what issues are highlighted (Castleden et al., 2008; Ferreira, 2006). Also called Photovoice and Videovoice (Castleden et al., 2008; Minkler et al., 2012), this type of knowledge sharing builds capacity in community members through their involvement in the research and dissemination processes; they also engage in the specific skill-building needed to manipulate the technology (Ferreira, 2006).

Video is an appealing communications format, yet it should not be chosen for this reason alone. Video (and photo) must be chosen according to end goals and audience specifics (Bennett and Jessani, 2011). Where written documents are required (such as in higher levels of government and academia and in legal processes), videos and photography are inappropriate. Likewise, jargon-filled reports and analyses are not adequate when dealing with communities that have low literacy levels. Aside from highly technical and upper-level professions, however, videos and photos (in addition to radio, as previously highlighted) are among the farthest-reaching and engaging knowledge sharing methods. Participatory photo and video can generate interest in the topic and build capacity in the community members (Ferreira, 2006).

With respect to small, northern, and in particular Aboriginal, communities, videos can be a culturally appropriate way to disseminate research information and foster effective two-way communication (Ibid). Aboriginal knowledge systems rely on stories and experience more than on writing and reports, therefore videos - which allow the viewers to see emotions and feelings - are more effective than written documents, which can have a cold, lifeless tone (Ibid). Additionally, videos overcome the barrier of low literacy levels, as well as reinforcing self-determination and OCAP (ownership, control, access, and possession [of knowledge]) principles (Ibid), which are crucial in re-defining researcher-community relations.

Online Activities

With the prevalence and power of the Internet, any knowledge sharing initiative should ideally be supported by an online presence of some sort. Websites and online and/or email newsletters are examples of such a presence. Online newsletters are lower in cost and reach a much broader audience than printed newsletters, which must be printed and manually distributed (The California Endowment, n.d.). It must be noted, however, that providing information online (such as a website or online newsletter) is a passive way to provide
Research and Knowledge Sharing in the North

information (IDRC, 2003), whereas manually (and labour-intensively) distributing information and newsletters is an active and potentially more fruitful knowledge sharing method. An active dissemination effort would include reaching out to a network of communities, organizations, and involved parties and providing the information directly (Ibid). The costs and benefits, in terms of time, effort, resources, and human capacity, must be measured in order to assess whether the risks associated with partially passive diffusion are large enough to warrant that more intensive and active efforts are undertaken.

Online activities, as helpful as they are, do not and cannot replace offline activities (Tsui et al., 2006). The use of technology in sharing knowledge is exceptionally context- and community-specific. Online knowledge sharing depends on technology (which, to be sure, greatly accelerates the transfer of knowledge (Ho et al., 2004)), but in small northern communities, where the technology may be subpar or lacking altogether, online efforts will not be as effective.

Stories, Talking Circles, and Research Ambassadors

Given the significance of oral tradition in Aboriginal cultures, the use of stories and talking circles as knowledge sharing strategies can be very powerful. Stories are context appropriate and can appeal to a broad and diverse audience (Tsui et al., 2006), all the while providing accurate knowledge and information (Martin et al., 2006). Building on the idea of storytelling, talking circles can be an inclusive and respectful way to share knowledge (Struthers et al., 2003). The very shape of this format - the circle - is a significant symbol of unity and equality that allows each person in the circle to be at once a leader and a learner (Strickland et al., 1999).

The use of research ambassadors, also called research champions, in knowledge sharing initiatives has been called an “unqualified success” in one case study (Canadian Institute of Health Research, 2008), and can be another way to include community members as leaders in the project. Research ambassadors inform the community of the research and help in disseminating information, answer questions that the community may have, and ‘champion’ (that is, garner support for) the research within the community. Youth can be great research champions, and can act as “cultural brokers;” in other words, youth can help the researchers communicate with Elders and other community members who adhere to different, or more traditional, cultural norms and values with which the youth are familiar (Minkler et al., 2012).
Summary

- Knowledge sharing is the process of exchanging knowledge and information among researchers and communities. It is the bridge between research and action.

- Knowledge sharing includes all steps in the collaboration.

- Knowledge sharing is tailored to the audience and the message.

- There are many different terms to refer to the same process. We use ‘knowledge sharing.’

- Knowledge sharing and CBPR principles are intertwined.

- Knowledge sharing is context-specific, especially in Aboriginal communities.

- Barriers to knowledge sharing include: academic ideals; poor quality of interaction; lack of evidence; misunderstandings, assumptions, and lack of trust; and lack of infrastructure, support, and skills.

- Northern communities are very different from southern cities, so knowledge sharing strategies must be developed in the northern context.

- Knowledge sharing is based in person-to-person relations.

- Northern knowledge sharing strategies that are effective include: face-to-face meetings and workshops; knowledge brokers; media, radio, and newsletters; photos and videos; online activities; and stories, talking circles, and research ambassadors.

- Face-to-face communication is the most effective knowledge sharing technique.
Appendix: Plain Language

Plain language is a writing style designed to be understandable and accessible to the general public. It is important so that people are able to comprehend what you, the writer, are trying to convey. People expect to be able to understand things that are presented to them, and will become frustrated when they can’t read it. Plain language is so important that governments, including the Federal Canadian Government, commit to using plain language in their communications policies.

In northern or Aboriginal communities, or in any community where literacy levels are low, or English is not the first or primary language, it’s important to use plain language so that the greatest number of people can understand what is written. Many people, like community members or tribal Elders, don’t have the same technical or medical vocabulary as researchers or doctors. If this type of vocabulary is used, not many people will fully understand what is being said. Avoid using highly technical words, or words that only other people in your profession or industry would know – unless you’re communicating only with people in the profession who have the same vocabulary.

There are a few tools and techniques to write in plain language. Have titles and subtitles, and separate your ideas so that the reader doesn’t have to spend energy searching for them. If you want to make an idea stand out, separate it visually: add a text box, or use boldface or italics. Make them pay attention. Using “you” draws the reader into what you’re trying to say. Don’t use this type of informal writing, though, if you’re writing an important government or legal document – context is everything, and in these types of documents, formality is needed.

Plain language is all about the reader. As the writer, you need to know who your audience is and what their needs are, and you need to tailor your writing to these. You should pay attention to the characteristics of your audience, like age range, gender, first language, interests, abilities, culture, and so on.

Writing in plain language isn’t always easy at first, but it does get better with practice. Really understanding your topic can help. Try to explain things in a simple, uncomplicated way, without “dumbing it down.” Lead the reader down the path – don’t let them get lost in the woods of complicated sentence structure, technical language, and intimidating formatting.
Resources

For more information on knowledge sharing, community-based participatory research, Aboriginal knowledge, or plain language writing, please refer to the following resources and organizations:

**Knowledge Sharing**


Northwest Territories Literacy Council
[http://www.nwt.literacy.ca](http://www.nwt.literacy.ca)
Box 761, 5122-48th street, Yellowknife, NT, Canada X1A 2N6
Phone: (867) 873-9262
Fax: (867) 873-2176
Toll-free in NWT: 866-599-6758
Email nwtliteracy@nwtliteracy.ca

**Community-Based Participatory Research**


Arctic Institute of Community-Based Research
[http://www.aicbr.ca/home](http://www.aicbr.ca/home)
209-100 Main Street, Whitehorse, Yukon, Canada Y1A 2A7
Phone: (867) 668-3393
Fax: (867) 668-5543
Email info@aicbr.ca

Community-Based Research Canada
[http://www.communityresearchcanada.ca](http://www.communityresearchcanada.ca)
Phone: (250) 472-4630
Email info@communityresearchcanada.ca
Aboriginal Knowledge and Research Protocols


First Nations Information Governance Centre
http://www.rhs-ers.ca
49 Ford lane, Unit 1, Akwesasne, Ontario, Canada K6H 5R7
Phone: (613) 733-1916 ext. 108
Fax: (613) 936-8974
Toll-free: 866-997-6248

Assembly of First Nations
http://www.afn.ca
55 Metcalfe street, suite 1600, Ottawa, Ontario, Canada K1P 6L5
Phone: (613) 241-6789
Fax: (613) 241-5808
Toll-free: 866-869-6789

Plain Language

Access Research NWT: Plain Language Resources (webpage). http://www.accessnwt.ca(for-researchers/resources-for-researchers/plain-language

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Economic and Social Research Council (n.d.). Getting Social Science Research into the Evidence base in Government. URL: http://www.esrc.ac.uk/_images/Getting%20social%20science%20research%20into%20the%20evidence%20base%20in%20government_tcm8-20047.pdf [June 21, 2013].


27


Wilton, B.; Roberts, O. (2013). From idea to impact: How we can help you mobilize research knowledge (PowerPoint). University of Guelph. URL: [www.uoguelph.ca/research/assets/.../fie_apr_2013_kmb_info.pptx](http://www.uoguelph.ca/research/assets/.../fie_apr_2013_kmb_info.pptx) [June 20, 2013].