

## *Knowledge Translation*

# **Knowledge Translation With Northern Aboriginal Communities: A Case Study**

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### **Introduction**

In recent years a new lexicon has emerged in the world of research, as terms such as “translating research,” “knowledge translation,” “knowledge exchange,” and “knowledge sharing” have become increasingly part of the language of health research planning and execution. The incorporation of these concepts into research activities represents a major step forward in the development of community/researcher partnerships and in the integration of research evidence into health policy and practice (Bowen & Martens, 2005). This is particularly true for research conducted with Aboriginal communities.

Doing research “the right way” with Aboriginal communities has received considerable attention in recent years. Several documents on conducting research in an ethical and responsible manner now guide researchers and communities embarking on research partnerships (Canadian Institutes of Health Research, 2007; Ermine, Sinclair, & Jeffery, 2004; Inuit Tapiriit Kanatami and Nunavut Research Institute, 2007; Schnarch, 2004). All espouse the need for a participatory research approach that includes reciprocal sharing of knowledge.

However, the practice of knowledge translation and knowledge exchange remains at a formative stage in all arenas, despite the abundant and growing literature in this area. Knowledge translation has been termed an “under-developed element of the research process” (Armstrong, Waters, Roberts, Oliver, & Popay, 2006, p. 384), and much remains to be learned about putting existing and emerging concepts into practice. The gap is particularly notable in participatory research conducted with Canadian Aboriginal communities, where many feel that insufficient attention has been paid to the development of knowledge translation within specific knowledge systems and ways of knowing (Estey, Kmetz, & Reading, 2008; Smylie et al., 2003). While we know

that factors such as a participatory approach and relationship-building are key to successful knowledge exchange with these communities, these are not consistently employed in research activities (usually because of insufficient time and resources).

This article discusses various processes to promote knowledge translation and exchange used in a study conducted with two sets of Aboriginal communities in the Canadian north. We sought to specifically acknowledge and utilize “best practices” for such research, while also acknowledging that every research project is a process of learning and improvement. We thus provide here an assessment of some of our successes and challenges in the hope that our experiences will contribute to knowledge and practice in this area.

### Underlying Principles

Our research was guided by the concepts of knowledge translation and knowledge exchange. The Canadian Institutes of Health Research (2009) defines *knowledge translation* as “a dynamic and iterative process that includes synthesis, dissemination, exchange and ethically-sound application of knowledge.” The Canadian Health Services Research Foundation (2009) defines *knowledge exchange* as “interaction between decision-makers and researchers [that] results in mutual learning through the process of planning, producing, disseminating and applying existing or new research in decision-making.” In our study, we viewed these two concepts as being the same in intent, and thus we use the terms interchangeably.

An integral component of effective knowledge translation and exchange with Aboriginal communities is acknowledgement of the concept of *ethical space* coined by Poole (1972). Ermine et al. (2004) describe ethical space in an Aboriginal context as the common space between two often disparate knowledge systems, cultures, and world views: “The ethical space . . . requires dialogue about intentions, values, and assumptions of the entities towards the research process. With an agreement to interact, the particulars of cross cultural engagement, along with all the issues of the research process are negotiated towards an amicable research agreement between researchers and Indigenous communities” (p. 20). Acknowledging the need to identify and work within this common space of knowing and understanding is critical if true knowledge sharing is to occur. Although this concept was not explicitly recognized in our initial research planning and implementation, it does aptly describe the process and principles that guided our knowledge translation and exchange activities.

A key underlying paradigm for knowledge translation and exchange in the study was the use of a participatory research approach. Participatory research is a general term for research approaches that “share a core philosophy of inclusivity and of recognizing the value of engaging in the research process (rather than including only as subjects of the research) those who are intended to be the beneficiaries, users, and stakeholders of the research” (Cargo & Mercer, 2008, p. 326). A major strength of this type of research is its inherent inclusion of knowledge translation through the integration of researchers’ theoretical and methodological expertise with non-academic participants’ real-world knowledge and experiences.

### **The Study**

The purpose of the study was to develop new insights into the communication and understanding of various types of health risks with two sets of Aboriginal communities in northern Canada: the Dene communities of N’Dilo and Dettah in the Northwest Territories and the Inuit communities of Nain and Hopedale in the Labrador Inuit Settlement Area of Nunatsiavut, Newfoundland and Labrador. The 3-year study was conducted as a partnership between researchers at the University of Alberta and Université Laval and community members in the four locations.

Both sets of communities are relatively small (with 2006 populations of 330 in N’Dilo, 247 in Dettah, 1,034 in Nain, and 530 in Hopedale) but vary in remoteness. The communities of N’Dilo and Dettah are part of the Yellowknives Dene First Nation. While N’Dilo falls within the municipal bounds of Yellowknife (capital of the Northwest Territories), Dettah is a 6.5-kilometre drive from Yellowknife by ice road in winter or a 27-kilometre drive on an all-season road. The proximity of both communities to Yellowknife means that their residents are exposed to a greater urban influence than residents of more remote Dene communities in the Northwest Territories. This results in unique sociocultural influences that may affect knowledge, perspectives, and behaviours related to health risks and traditional activities. The Inuit communities of Nain and Hopedale are more isolated, “fly-in, fly-out” communities, accessible by boat in summer and otherwise only by air. Smaller, more isolated communities such as these require more comprehensive and engaged forms of knowledge transfer.

The study was conducted in two phases. The first consisted of a questionnaire administered by local community field workers/researchers as a structured interview. When appropriate, the interview was conducted in the local language (Dogrib in the Northwest Territories and Inuktitut in Nunatsiavut). The questions covered a broad range of community con-

cerns and public perspectives on various types of health risks (for example, lifestyle behaviours such as smoking and drinking, physical risks entailed in the pursuit of traditional activities, and risks associated with exposure to environmental contaminants).

The second phase used a qualitative research method called PhotoVoice. PhotoVoice is a participatory action research method whereby individuals are invited to take photographs on a specific subject, discuss them individually and/or collectively, and use them to create opportunities for personal and/or community change. This method has been found to be particularly effective for use with participants who relate better to visual images than to written materials, such as many Aboriginal individuals (Wang & Burris, 1997). Participants were asked to take pictures in their environment of situations they felt posed a risk to themselves, their family, and/or their community. They were then asked to discuss the pictures in an informal interview.

### ***Knowledge Translation and Exchange***

Five components were seen as fundamental to the knowledge translation and exchange process for this study: (1) establishing partnerships and trust with the communities; (2) using trained community field workers/researchers for all stages of research planning, data collection, analysis, interpretation, and dissemination; (3) holding regular workshops for all members of the research team; (4) making a commitment to return the research results to the participants and communities first, for verification and validation; and (5) translating the research results for government decision-makers so that they might be used to inform policy and practice.

### ***Partnerships***

Both formal and informal partnerships were established in N'Dilo and Dettah. Meetings were held with the Chiefs and Band Council members to outline the research. In addition, considerable time was invested in building relationships between the researchers and team members in the community to develop trust through a shared understanding of intentions, motivations, and interests. In Nain and Hopedale, these relationships had already been established through prior joint research initiatives.

### ***Community Field Workers***

In N'Dilo and Dettah, field workers were recruited and given several weeks of training in basic research and practical skills (such as transcribing). Existing, trained researchers from Nain were available. Additional youth assistant trainees from Nain and Hopedale were recruited and included in training and research activities.

### ***Workshops***

Three workshops involving all of the project team members from the two universities and the four communities were held at critical junctures in the research process to collectively make decisions on key aspects of the research. These workshops played a central role in knowledge sharing and exchange, particularly in giving team members an opportunity to get to know and understand one other.

### ***Return of Results to Participants and Communities***

In N'Dilo and Dettah, results were returned to the community in three sessions using different mechanisms. A summary report of the questionnaire results was prepared for return to participants and community members. A compilation of the PhotoVoice results was prepared in report form for return to participants and Band Council members. Posters of this information were used to return the results to other community members. Participants had been promised that they would be the first to see the results. Accordingly, a luncheon of caribou stew and bannock was held specifically for participants. The community field worker personally invited the participants to this event. Approximately 25 people attended. Results were presented to the joint N'Dilo/Dettah Band Council meeting the same evening, with time allotted for questions. A final presentation was made to the general community at a "tea and bannock" get-together. Flyers were distributed to all homes in N'Dilo and Dettah publicizing this event. Approximately 20 people attended. At both participant and community events, the sharing of local food was considered important to the facilitation of knowledge exchange.

In Nain and Hopedale, a variety of mechanisms were also used to return results to the participants and the community. On the recommendation of the community researchers and the regional Inuit government, an open house was held in Nain to present general results from the survey and PhotoVoice phases of the study to participants and other interested individuals. Attendees were provided visual (photo images), summary (posters), and synthesis (fact sheets) information on the study and its basic results. Additionally, the regional television and radio station, the OKâlakatiget Society, video interviewed the researchers and recorded events at the open house for regional broadcast. The Nunatsiavut Government Environment Division newsletter published the summary results of the study in an edition circulated to all Nunatsiavut coastal communities. A planned open house in Hopedale had to be cancelled due to poor weather but the information was disseminated to the community via the local office of the regional Inuit government using the prepared materials.

### ***Presentation of Results to Government Decision-Makers***

The results were formally presented to the First Nations and Inuit Health Branch of Health Canada in Ottawa. In attendance were policy-makers from Health Canada, Indian and Northern Affairs Canada, and the national Inuit organizations. While those present found the survey results interesting, they appeared to be more engaged by the photos and accompanying words generated during the PhotoVoice phase of the study. The presentation prompted many questions and subsequent e-mail discussions of the results and their potential policy ramifications.

### **Discussion**

What did we learn from this extended process of research and knowledge exchange? First and foremost, we reinforced our conviction that it is essential to spend time developing relationships and trust among all research partners. This instils confidence in the researchers and in the project. It also addresses suspicions — fostered by previous, inappropriately conducted, research activities in the north — about the research agenda and the efficacy of the results. Regular face-to-face, interpersonal contact is vital to establishing this trust relationship (Bowen & Martens, 2005).

The use of community-based field workers/researchers was crucial to the success of the project. The local knowledge of these team members was critical to ensuring that the right questions were asked in the right way. Participants were far more comfortable talking to people they knew and trusted. The use of local field workers/researchers also ensured that the research was conducted in the language most comfortable for the participant. Knowledge exchange was greatly enhanced through these processes, compared to more traditional researcher-conducted interviews. Furthermore, the training of local researchers served to build research capacity within the community, which is considered an important component of knowledge translation (Bowen & Martens, 2005).

Involving all members of the research team in workshops throughout the study enabled a true two-way exchange of knowledge and a mutual learning environment, as everyone strived to acknowledge the “ethical space” between two knowledge systems and world views. On several occasions the pitfalls of failing to acknowledge this “space” became evident. For example, the university researchers initially interpreted addictive risk behaviours as constituting a “voluntary risk,” in keeping with the conventional literature on factors influencing different risk perspectives and behaviours (Slovic, 1987). However, community research partners pointed out that this was an erroneous interpretation for their communities, where addictive behaviours have ceased to be “voluntary”

for many people. This reinterpretation greatly influenced the meaning attached to the results and the implications for health policy and practice.

The PhotoVoice technique was an effective means of knowledge exchange for all parties. For the researchers, it was a way of exploring risks unbiased by their preconceived ideas about the major issues for these communities. For the community, the PhotoVoice process served as a mirror of risk situations in the community, as risks that were known but had become so commonplace that they were no longer “seen” took on new meaning. For the decision-makers, the issues experienced by the communities were made much more “real” through the use of pictures and words than if they had been described only in numbers and graphs.

There were also some challenges in the knowledge translation process. Efforts to return the results to the communities and decision-makers were less successful than expected. The community presentations were poorly attended overall, and not all decision-makers accepted the invitation to participate in the research process by attending the final team workshop. Nonetheless, it was recognized that providing an opportunity for participants to learn about the study and the results is often the most important aspect of knowledge translation. Several community members and decision-makers expressed regret at being unable to attend the formal presentation of results and acknowledged the value of the written materials. This illustrates the need for knowledge translation to take many forms so as to accommodate multiple needs.

Finally, it is difficult to measure the changes resulting from this study. The project did spur further, community-generated, studies in N'Dilo and Dettah. For instance, results showing a high prevalence of smoking and smoking adoption at a very young age led to a partnership research program on tobacco use among young people. However, while it is suspected that the research process and the results have led to many other changes (at the individual, community, and policy level), it is difficult to determine the direct impact of the knowledge generated.

In summary, knowledge translation is an evolving process within participatory research programs with Aboriginal communities. Sharing our experiences (both successes and challenges) will further our collective quest for continued learning and improvement.

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