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Knowledge Translation and Aboriginal HIV/AIDS Research: Methods at the Margins

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ABSTRACT

Research can provide useful evidence to better target health policy, and to guide more effective health services and programs. Aboriginal health research is a critical part of the complex social and political processes that maintain health services and programs and in the broader determinants of health. No longer is Aboriginal research being done <u>to</u> Aboriginal peoples, instead research is conducted <u>with</u> and <u>by</u> Aboriginal peoples, organizations and communities. It is imperative that HIV/AIDS is acknowledged as a health priority across all health services and that effective partnerships for community action are developed with Aboriginal communities. Community members need to be meaningfully involved in designing, promoting and implementing HIV/AIDS prevention and treatment programs.

This article explores the process of knowledge translation (KT) in Aboriginal HIV/AIDS research as a tool of community-based research and a process that is consistent with the principles of ownership, control, access, and possession (OCAP) in Aboriginal research.

Examples of KT initiatives are drawn from the Aboriginal HIV/AIDS movement in Canada. KT processes ensure Aboriginal community involvement in all aspects of the research process including: Aboriginal direction and guidance in setting the research question(s), doing the research, writing, reviewing and reading the final academic and community publications (Allard 2006). Effective KT requires significant planning in advance, working in-person with the support of Elders, ongoing learning and direct community involvement throughout the project which leads to deeper investment in the results and greater capacity to take action (Masching et al. 2006).

INTRODUCTION

Knowledge Translation (KT) is a concept that captures the strong desire for research results to be ‘taken up’ and applied in practical ways that will lead to action (Estabrooks, Thompson, Lovely & Hofmeyer, 2006; Graham et al., 2006, Lavis, 2006). This is a somewhat new concept and new terminology in research that began to gain in popularity in 2000 (Canadian Institutes of Health Research (CIHR), 2004; Stirling & Bisby, 2006). Building on the notions of knowledge transfer and dissemination, KT moves towards a more interactive and reciprocal research process involving both academic and community researchers (Canadian Institutes of Health Research (CIHR), 2006a, 2006b). For Aboriginal Peoples in Canada the principles of KT (Martin, MacAulay, McComber, Moore & Wein, 2005; Reading, 2005; Smylie, et al., 2003) complement and support the expectations outlined in the philosophies of Aboriginal ownership, control, access and possession (OCAP) (Schnarch, 2004), and

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implemented in community-based research (CBR) methodology (Canadian Aboriginal AIDS Network (CAAN), 2002a; Ibanez-Carrasco, 2004; Smith, 1999). This complimentary relationship further enhances the expectation that research will be meaningful and lead to positive change for Aboriginal Peoples in Canada.

KT emerged from the health sector (Bowen & Martens, 2005; Choi, 2005) and while there are many applications, the goal of this paper is to focus on KT as it relates to Aboriginal community-based health research and specifically to HIV/AIDS (Indyk & Rier, 2005; Majumdar, Chambers & Roberts, 2004; Willms, Arratia & Makondesa, 2004). A short review of the history of research *on* Aboriginal Peoples will lead into the evolution of the concept of Knowledge Translation and the philosophy of OCAP. Examples of the implementation of KT in Aboriginal community-based HIV/AIDS research (CAAN, 2005a, 2005b; Fletcher, 2003) are discussed within some of the opportunities that exist in Canada. Finally, the paper will reflect on the process of the integration of KT through to actions with suggestions for further research, evaluation and ideas to continue to apply KT from the grassroots to the National level.

BACKGROUND

There is a legacy of distrust, harm and exploitation caused by researchers that must be recognized when undertaking research with Aboriginal Peoples in Canada (Smith, 1999; Smylie et al., 2003; Stephens, Porter, Nettleton & Willis, 2006). Significant shifts have taken place in recent history and increasingly Aboriginal communities are poised to take a leading role in research. This shift is captured in the notion of doing research "with" Aboriginal Peoples rather than "on" Aboriginal Peoples. Respect and awareness of the past helps to guide us in the present and into the future towards a vision of strong healthy communities. As Aboriginal people engaged in research and a non-Aboriginal person coordinating an Aboriginal research project, the authors of this paper value KT. It is our perspective that KT reinforces the relevance of research for Aboriginal communities, improves the results of research and engages more people in the research process creating opportunities for mutual learning and capacity building.

Attention to the legacy of research is necessary for all researchers, Aboriginal or not, who hope to pursue health research within Aboriginal communities. Smylie et al. (2003) point out the importance of a new research relationship:

> Conducting health research with Aboriginal peoples entails tremendous responsibility. Researchers have a responsibility not to perpetuate existing inequalities, policies and attitudes. Information should be collected in a way that is consistent with Aboriginal worldviews, respects cultural differences, protects their traditions and cultural manifestations and also recognizes the moral, historic and legal rights of Aboriginal peoples to self-determination. (p. 34)

When research is respectful of the perceptions, needs, unique circumstances and traditional knowledge in Aboriginal communities (Smith, 1999) the outcomes have been demonstrated to be extraordinary. The Kahnawake Schools Diabetes Prevention Program (Potvin, Cargoa, McComber, Delormier & MacAulay, 2003) is a stellar example of a successful Aboriginal community-based research initiative that is conducted in line with the respectful relationship described by Smylie et al. (2003) above.

WHAT IS KT?

In 2000 new legislation was introduced in Canada to establish the Canadian Institutes of Health Research (CIHR) with, "a bold, transformative mandate that included both health research *and* knowledge translation" (CIHR, 2004). The CIHR consolidated several research funding bodies in one organization. The Institute of Aboriginal People's Health (IAPH) is one of 13 institutes and was created in response to the unique health research needs of the Aboriginal population in Canada. The creation of the IAPH is important for Aboriginal research as noted by Stephens, et al. (2006) "this recommendation [for equal partnership] stems from the legacy of past research, and in some Indigenous communities a model of this participatory nature already exists.

Canada's First Nations peoples, for example, have pioneered an Indigenous-led research agenda (p. 2025). Some of the work the IAPH-CIHR has funded includes Aboriginal KT projects, which are included in two casebook reports by the CIHR (CIHR 2006a, 2006b; Stirling & Bisby, 2006).

There is an expectation that CIHR funded research will lead to change, specifically to the improved health of the Canadian population. Knowledge Translation, "a prominent and innovative feature of the CIHR mandate" (CIHR, 2004), is defined as:

> 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 (CIHR, 2004).

Based upon this definition the expectation of all research is for "an active exchange of information between the researchers who create new knowledge and those who use it" (CIHR, 2004). Essentially, KT is about making sure that the knowledge gained through research is meaningful and useful in practice for various stakeholders. This means that from the very beginning of a research project plans and resources are in place for capacity building and information sharing throughout the project.

KT as a concept has been broadly taken up and distinguishes itself from 'knowledge dissemination' or 'knowledge transfer' with a focus on innovative and dedicated action and the quality of research prior to dissemination and implementation of research findings (National Centre for the Dissemination of Disability Research (NCDDR), 2005; Schryer-Roy, 2005). KT is a complex process that ideally results in behaviour change and positive health outcomes on the part of knowledgeable strategic planners and change agents, such as policy makers, community leaders, and governments (National Centre for the Dissemination of Disability Research, 2005). However, as noted by Ho et al. (2004) in relation to KT in medical settings, change is a long term goal: "It took some 264 years for evidence that vitamin C cured and prevented scurvy to inspire the British Navy to establish a routine dietary policy in its fleet. The current KT cycle, although much shorter, is still estimated to be more than 20 years" (ibid, p. 2).

OWNERSHIP, CONTROL, ACCESS AND POSESSION

The philosophy of OCAP is a statement of principles for conducting research with Aboriginal communities. First put forward by the First Nations during the early phases of the First Nations and Inuit Regional Longitudinal Health Survey process OCAP has become a concise reference to the expectation that Aboriginal Peoples will be active and equal partners in the research process. In essence, ownership identifies the collective ownership of knowledge and information by Aboriginal Peoples. Control speaks to the right to control all aspects of the research process from conception to completion. This does not imply the right to exclusively conduct research, it is the right to be involved, to contribute, to approve and be aware of all aspects and impacts of the research as a project progresses. Access is two fold and reflects the right to have access to information about the community and also to manage and decide who else will have access to this data. Finally, possession is more literal and means to assert ownership and maintain the right to store all materials related to a research process (CAAN, 2002a).

The implementation of OCAP occurs in numerous ways. Various organizations and institutions have developed templates for team agreements that can be adapted as desired by a research team as new projects are initiated. The Canadian Aboriginal AIDS Network (CAAN) uses the Principles of Research Collaboration agreement in all research projects (Canadian Aboriginal AIDS Network, 2002b). This agreement clearly outlines expectations for all of the research project stakeholders and operationalizes how the principles of OCAP are implemented in community-based HIV/AIDS projects undertaken by CAAN. OCAP principles are also incorporated in ethical reviews by groups such as the Manitoulin Island Aboriginal Health Research Review Committee and the Mi'kmaq Ethics Watch (Noojmowin Teg Health Centre, 2003; Mi'kmaq College Institute, 1999).

A significant outcome of the mobilization of research in the Aboriginal community around OCAP has been increased attention to capacity building (Fletcher, 2003; Smith, 1999). Naturally to exert rights grounded in self-determination and jurisdiction over community it is necessary to build relevant skills (CAAN, 2005a, 2005b, 2004, 2003). In light of this need,

> the concepts of "participatory research" and "community involvement", the incorporation of "traditional knowledge", "culturally appropriate" and "community-based" research methods have gained momentum in recent years within First Nations and Inuit settings. (Schnarch, 2004, p. 6)

This momentum towards community driven research creates a distinct pathway to support the incorporation of KT (Fletcher, 2003), especially in HIV/AIDS research (CAAN, 2005a, 2005b, 2004; Ibanez-Carrasco, 2004). As Schnarch (2004) concludes "research is a tool for promoting changes that can transform people's lives. Putting OCAP into practice enhances that potential" (ibid, p. 25). Similarly, KT seeks to put the results of research into practice in a meaningful way that will lead to action and change for the better (CIHR, 2006a, 2006b; Reading, 2005).

APPLYING KT PRINCIPLES IN ABORIGINAL RESEARCH

Given a growing understanding of KT in practice and in literature the opportunity is emerging to reflect upon the impact of this concept in Aboriginal research forums (Allard, 2006). For example, Smylie et al. (2003) noted that until recently, the "two communities" theory put forward by Caplan in 1979 has been the dominant model of health research in Aboriginal communities. This theory presents the notion that research uptake is limited by a divide between the "two communities" - one of health researchers and one of policy makers. The divide is due to differences in language, priorities and world view (Neilson, 2001). Commenting further on this theory, Smylie et al. (2003) observe:

> In the century following the Indian Act legislation, "official" health researchers and policy makers were clearly external to Aboriginal communities, and largely employed by the Federal government. While health researchers remain external to Aboriginal communities today, health policy makers are increasingly found within the community, as the communities take a larger role in the governance and management of their health care services. This shift has resulted in a widening gap in the worldview between the two groups. Further research regarding knowledge translation in Aboriginal communities can narrow this gap in two ways: by applying a health research methodology that is framed in the indigenous worldview of the community "policy makers"; and by involving Aboriginal academics and community members in the health research process. (p. 141-142)

Likewise, NAHO produced a strategic paper that reviewed reports and articles published about Aboriginal Health between 1991 and 2001, in total, 250 references were identified (National Aboriginal Health Organization (NAHO), 2001). Clearly, research into Aboriginal health is occurring; the challenge is to 'translate' this body of knowledge into policy and practice. In the same document NAHO observes that when excluded from the research process, Aboriginal Peoples feel little ownership of the resulting knowledge. Given this lack of connection, policy decisions based on the evidence from the research are seen as lacking context, lose relevance and reinforce the history of *being* researched rather than acting together to improve community health (ibid). The end result of this exclusionary process is research that is not trusted and will not be taken up in policy that can fully contribute to improving health status and outcomes.

Finally, Kenny (2004) has presented an interesting Framework for Aboriginal Policy Research. Recognizing that sharing knowledge is a traditional norm, Kenny references, "sharing is a responsibility of research… For indigenous researchers sharing is about demystifying knowledge and information and speaking in plain terms to the community… Oral presentations conform to cultural protocols and expectations" (p. 13). Kenny emphasizes that research that is culturally relevant must honour “constant” communication with the community throughout the research process, “[a]fter all, lives will be affected by the changes the research may bring” (p. 13).

INCORPORATING KT IN AN ABORIGINAL COMMUNITY-BASED RESEARCH PROJECT

There is no one ‘formula’ for incorporating KT into an Aboriginal community-based research project. Instead, there are a variety of strategies that can be used that fall under the broad concept of Knowledge Translation (CIHR, 2004, 2006a, 2006b). The list includes:

> Knowledge dissemination, communication, technology transfer, ethical context, knowledge management, knowledge utilization, two-way exchange between researchers and those who apply knowledge, implementation research, technology assessment, synthesis of results within a global context, development of consensus guidelines and more. (CIHR, 2004)

Furthermore there are distinctions in the audience the research is intended for and different types of research will require different approaches. The heart of the matter is that bringing users and creators of knowledge together during all stages of the research cycle is fundamental to successful KT (CIHR, 2004, 2006a, 2006b; Estabrooks et al., 2006; Graham et al., 2006; Grimshaw et al., 2006; Lavis, 2006; Reading, 2005; Schryer-Roy, 2005; Willms et al., 2004).

Through the development of a KT Toolkit for the Métis Centre at NAHO, Allard (2006) indicates that KT is grounded in both Knowledge Transfer and Knowledge Brokerage. Schryer-Roy (2005) also references these topics in her presentation, *Knowledge Translation: Basic Theories, Approaches and Applications*. In this context, Knowledge Transfer processes are pushed beyond the unidirectional dissemination of knowledge and incorporate “dynamic mechanisms for engaging stakeholders in order to increase their uptake and application of research information (and thereby enhance the decision making process)” (Allard, 2006). Knowledge Brokerage refers to “the human forces behind knowledge transfer… [and]… refers to the connections that ease knowledge transfer” (Schryer-Roy, 2005, p3).

In an effort to support research teams to plan for KT at the ‘front end’ of the research process, Allard (2006) has outlined 10 questions that will help to ensure that KT will be included in the research process. By answering these questions as the research proposal is being developed, the quality of the research plan will be increased and KT will be built into the process (Refer to Box Inset). This is a useful process for each new project given the fact that answers to the KT questions are unique to each Aboriginal CBR project, as determined by the researcher and community committee discourse and decisions.

Questions on KT to ask in Aboriginal Community-based Research Projects
(Allard 2006)

Q1. What is this project trying to achieve?

- What do you hope will happen as a result of the research project in regards to health status and outcomes in Métis/First Nation/Inuit communities?
- Is it likely to have an impact on health service provision, health professionals’ practice, policy and funding allocations, treatment options, building capacity, or informing healthy behaviour?

Q2. Who are the potential users of the outcomes or knowledge from the project?

- Evidence shows that the involvement of potential users in the planning, conduct and dissemination of projects is likely to assist the uptake of research.
- The research project committee has to ‘market’ (i.e. social marketing) the KT process to stakeholders, including the knowledge created by the research project.

Q3. How does this project relate to other current research work or trends in policy and practice?

- Policy makers prefer to engage with a synthesis of knowledge rather than individual research project reports. If the findings of the research project put forward radically new treatment options, you may anticipate some resistance from potential users.
- One of the biggest challenges to research transfer is that users will adopt research findings most easily if the findings match their own preconceived beliefs or worldview. They will be very slow to adopt any findings that don't, such as Indigenous worldviews.

Q4. How can you try to ensure your project achieves an impact?

- Involving potential users is one way. You also need to make sure that the ways you try to communicate with different potential users is suitable for their needs.
- Translating research findings into changes in health policy may require the production of briefing notes, meetings with politicians and public servants, and an action-learning approach to implement change at the level of service provision.

Q5. What are the risks or obstacles to successful research transfer for this project?

- Think about the potential barriers to research transfer relevant to your project. Barriers might include a hostile political climate, or language and cultural differences between researchers, policy makers and community members.
- The creation of a Memorandum of Understanding (MOU) among research participants is a strategy that can be used.

Q6. What are the opportunities which exist around this project to facilitate knowledge translation?

- A strong facilitating factor is the deep desire of researchers and organizations to help communities and to improve the health status and health outcomes of M/FN/I peoples.
- What are the key issues and concepts that the research findings address?
- What are the opportunities to lobby for changes to programs and policies or to create new policies?
- What new strategies can be utilized to address health issues?

Q7. Can capacity development be an outcome of this project?

- Research is a capacity developing activity – by planning carefully you can maximize the opportunities for capacity development for project team members, participants, organizations and communities.
- A fundamental component of community-based research is to develop research capacity 'within the community'. Researchers must be in place in M/FN/I communities and organizations (e.g. NAHO), as well as in universities, to engage in research and KT.

Q8. What are the dissemination and publication requirements for this project?

- Will it require the publication of a report, a journal article, the production of a video, a series of workshops or a media campaign?

- Will the findings of the research project be published in M/FN/I media, such as newsletters, newspaper, radio, television, journals? This could be at the local, regional, provincial/territorial, national and international levels.
- Will the findings be presented at conferences organized by M/FN/I organizations (NAHO, IAPH-CIHR, Circumpolar Health)?

Q9. How have/will you provide feedback to community organizations or members who participated in the research?

- This is one of the most sensitive areas in Indigenous health research because in the past researchers often did not report back to communities and were seen to be taking community knowledge and giving nothing back.
- Effective engagement with communities and participants is also one of the richest potential areas of learning. NAHO and its Centres provide advice on effective strategies on learning.

Q10. How much will a KT process cost?

- **Make sure you budget for knowledge translation in the project proposal.** Effective strategies for knowledge translation are likely to cost money, and are also very likely to take considerable time to make sure they work.
- Without effective planning and budgeting for research transfer, all the hard work and commitment of organizations and M/FN/I participants in doing the research may be "lost in translation".

Planning from the first steps of the research process to incorporate KT is fundamental to success. However, at the other end of the spectrum, we must also promote support for the users of the research to have the time to participate in research, review research evidence, and work to ensure that access to relevant evidence and where necessary practical guidelines are available (CAAN, 2004; Fletcher, 2003; Ho et al., 2003).

IMPLEMENTING KT AND OCAP IN ABORIGINAL COMMUNITY-BASED HIV/AIDS RESEARCH

In the body of literature regarding Knowledge Translation there is a significant amount of attention dedicated to theories regarding the utilization of knowledge (Estabrooks et al., 2006; Graham et al., 2006; Landry et al., 2003; Lavis, 2006; Neilson, 2001; Schryer-Roy, 2005; Unit 2, n.d.). Each has a rationale for classifying various levels of research uptake and 'use'; however, a key element that is not always recognized has been raised by Smylie et al. (2003); "Integration of relevant knowledge translation activities within *the context in which the knowledge is to be applied* thus appears to be an important knowledge translation strategy" (p. 141-42). Therefore, when considering the implementation of KT and OCAP in research that involves the Aboriginal AIDS movement in Canada it is imperative to reflect on the context of the various stakeholders (CAAN, 2005a, 2004, 2003). As researchers and/or participants in research, most Aboriginal AIDS initiatives are under funded and staffed by highly dedicated and overworked employees (CAAN, 2005b, 2004). This context may seem daunting for research, and in some cases it is. Some organizations simply do not feel they have the time to engage in a research project (CAAN, 2005b, 2004). For those that do undertake research however, there is an opportunity to use very creative methods to translate knowledge in a way that others can absorb and act upon (Masching et al., 2006; Reading, 2005; Willms et al., 2004).

CAAN is a leader in Aboriginal community-based HIV/AIDS research in Canada (CAAN, 2005a). As described in a recent oral presentation at the 2006 Canadian Association for HIV Research Conference (Masching et al., 2006), the research project “Diagnosis and Care of HIV in Canadian Aboriginal Youth” has emphasized KT throughout the research process. In 2003, CAAN partnered with academic and government researchers to better understand the HIV testing behaviours and experiences of Aboriginal youth. From conception, KT activities were implemented to facilitate the uptake of research findings by the communities involved, and by various levels of decision-makers. Aboriginal researchers were full partners in the planning, development and implementation of the research project; Aboriginal community members assisted with the design of data collection tools and data collection; capacity building workshops were held; and preliminary findings were presented in a dissemination workshop for possible end-users of the research findings such as community members, funders, and decision-makers. Workshop participants were asked to comment on and correct where necessary, the interpretations of findings by the research team. They were then asked to consider further dissemination activities such as what information they would like disseminated and in what form the information would be best delivered. The full impact of this initiative has not yet been evaluated; however, an array of possible end-users, including decision-makers at the community and national level have expressed interest in the results.

Another example of KT in Aboriginal HIV/AIDS research comes from collaborations between researchers at McMaster University and an unnamed Ontario First Nation (Majumdar et al., 2004). The study was designed to deliver and evaluate a culturally appropriate HIV/AIDS education program for Aboriginal youth that was facilitated by members of the First Nation community. In accordance with principles of KT, care was taken to meaningfully involve community in all stages of project development; opportunities for capacity building were built in to the project; information was delivered by community members; and the study was grounded in the context and concerns of the community in question. In short, the uptake of information by the community was encouraged by incorporating KT activities into the project plan. Results showed that there was “a statistically significant increase in the level of knowledge about HIV/AIDS among participants after completing the culturally sensitive AIDS education training with Aboriginal peer facilitators” (Majumdar et al., 2004, p. 70).

A slightly older but no less valuable example of KT in action involved a project to increase the uptake of HIV/AIDS information by Inuit (Armstrong, 2000). Pauktuutit Inuit Women’s Association of Canada collaborated with Inuit communities to produce culturally appropriate HIV/AIDS prevention materials that were then translated into one dialect of Inuktitut. The project involved extensive community consultations, a three-day HIV/AIDS/STI training workshop in Iqaluit, and on-going collaborations with community representatives. Careful planning for KT from the outset and an openness to community concerns and interests during the project increased community ‘buy-in’ and ultimately helped in the uptake of information.

Other examples of effective KT initiatives can be found from Australia where the Indigenous HealthInfoNet (an Indigenous Health Internet website), a virtual library or web-based database has been created. This website includes “relevant policies and strategies, case studies, details of recent published and other resources, preventive and clinical guidelines, selected and general bibliographic information, and details of organizations involved in the specific area” (Australian Indigenous HealthInfoNet, n.d.). In addition to written resources, a network of consultants provides peer review for new content on the site and contributes to the development of new materials. NAHO has created a similar Website in Canada, the Information Centre on Aboriginal Health (ICAH) (www.icah.ca). ICAH is a virtual library or web-based database of Aboriginal health information; a database of information on bibliographic and internet-based resources, programs and services, health careers, and scholarships and bursaries.

Taking Action

After all of the hard work is done collecting and analyzing data, sharing findings is the final stage of a research project journey (Friedman et al., 2006). There are many methods for disseminating information (Andreasen, 2006; Clarke et al., 2005). The beauty of KT is that all methods are valuable and creativity is encouraged.

Implementing KT supports the research team to demonstrate innovation in reaching out to diverse audiences within the community where the research has occurred and beyond to external stakeholders (CIHR, 2006a, 2006b).
Beyond the descriptions already provided, Knowledge Translation can take many forms**:** journal or newsletter publications, information on a website (e.g. ICAH www.icah.ca) or in the mass media, direct mailings of results to intended audiences, workshops and conferences, specific meetings with opinion leaders, audit and feedback or reminder procedures, and administrative or economic interventions, stories, songs and other artistic forms of expression, narrative review, systematic review, meta-analysis, meta-database, inventory of best practices, and public health observatory, executive summaries and/or entire final reports translated into the local languages (Choi, 2005; Fletcher, 2003; Martin et al., 2005; Unit 2, n.d.). In addition, "as part of the 'infostructure', Telehealth and E-Health are bringing health resources, information, services and personnel to remote and isolated communities. These represent alternative and innovative tools for bridging health and geographic location" (NAHO, 2001, p. 17-18). Ideally, one would also have the opportunity to bridge the gap that often exists between decision makers and researchers by partnering with "'policy entrepreneurs' as 'specialists who are actively promoting changes or shifts in policy to decision makers'" (Williams et al, 2005, p. 297).

Social marketing is another technique that can be used in Knowledge Translation to support action. In social marketing, the primary focus is on the consumer – on learning what people want and need rather than trying to persuade them to buy into what we are producing (Andreasen, 2006; Grier & Bryant, 2005) . Applying the principles of social marketing leads researchers, population health professionals and organizations to learn to listen to the needs and desires of target populations themselves, and build a program or research project directed from the community and people. This requires the consumers of research, community organizations and members, to have input into the research process. The success of this approach is shown in recent articles on HIV/AIDS prevention by community intervention in inner city communities in the United States and Africa (Indyk & Rier, 2005; Willms et al., 2004).

Choi (2005) also highlights 'marketing' research implications to various audiences. He reasons that "information must be simplified to a level that can be understood and used by the users" (Choi, 2005, p. 93). Using the example of tobacco control for policy makers, the economic and health burden on society is understandable. For youth, messages that smoking will make you ugly and cause premature aging would have an impact. In a similar approach Fletcher (2003) suggests looking for "local idioms and metaphors that provide grounded examples of the information collected through the research" (p. 51). Use local information sources to share information and seek input from a community translator who can help to share information in a "cultural and linguistic form familiar to the communities" (ibid), thereby enhancing uptake.

EVALUATION AND FUTURE POSSIBILITIES

How do we know that the KT approaches we have used actually worked? Various evaluation tactics can be applied to measure uptake and change in the community over time. Examples include: pre/post questionnaires to show if understanding about a topic has increased, report cards to evaluate the integration of research into policy, and citations and references to the final research reports and publications as indicators that the knowledge is being taken up by others.

A central theme throughout the key concepts discussed in this paper – Knowledge Translation, OCAP, community-based research – is the expectation of community involvement. Each of these concepts is strengthened by partnerships between researchers (from the community or from away) and community stakeholders (Kowal, Anderson & Ballie, 2005). The reality of this approach is that developing a process for working together can take time. The end result however has been consistently demonstrated to be more meaningful and more relevant research (Kowal et al., 2005). Kenny (2004) consolidates this notion in the following observation: "the direct input of the people is crucial in designing and implementing policies that work, because the expression of these policies in funding and services are usually the responsibility of grass-roots Aboriginal workers in the communities" (p. 19).

Our understanding of the potential of KT is evolving, at the same time, KT techniques have already been implemented within Aboriginal communities (Allard, 2006; Elias & O'Neil, 2006; Majumdar et al., 2004; Martin et al., 2005; Smylie et al., 2003, 2006). Certainly, the need exists to bridge and transfer research results to audiences who can benefit from new knowledge produced by Aboriginal HIV/AIDS research. The Aboriginal community as a whole has a strong oral history which is central to the sharing of knowledge and stories are often used to translate meaning to the listener. This is a solid history to build upon.

CONCLUSIONS

Knowledge Translation is a relatively new concept in practice and in literature (Estabrooks et al., 2006; Graham et al., 2006; Lavis, 2006). The literature review prepared by Neilson (2001) offers an excellent summary of the theories of research utilization and models of Knowledge Translation that are currently in use. KT outlines clear expectations for a shift in research accountability from the halls of the academy to the streets of the community with an emphasis on the relevant dissemination of research findings to a wide range of stakeholders who could be considered the end users of the results (Kowal et al., 2005).

Within the Aboriginal community the concept of KT merges easily with the philosophy of OCAP. Both of these perspectives share a practical application that revolves around high levels of community involvement which results in enhanced research outcomes. Both KT and OCAP have the potential to carry health research forward in exciting new directions by building a new level of understanding between the researcher and the research subjects.

Indigenous Peoples around the world are also taking up the challenge to reclaim ownership of their traditional knowledge and develop standards of research for and with their peoples (CAAN, 2005a, 2004, 2003; Kowal et al., 2005; Smith, 1999). Aboriginal participation in every aspect of the health research process is recognized as an important element of Aboriginal research projects that aim to improve Aboriginal health, whether in the Aboriginal community, university, research institute or government. Truly this is a dynamic moment in time for health research and if we are able to achieve our lofty goals of increasing the impact of research results, the health and well being of our societies will certainly be enriched.

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