

# Innovations in Knowledge Translation: the SPHERU KT Casebook

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Saskatchewan Population Health and Evaluation Research Unit (SPHERU)

June 2011



aboriginal activities available  
children **community** decision-makers effective  
evaluation facilitators **health** http  
immunization information **knowledge** kt  
members methods nations nursing participants  
population practice **program** project provided  
**research** results services staff

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## INTRODUCTION AND ACKNOWLEDGEMENTS FROM THE EDITORS

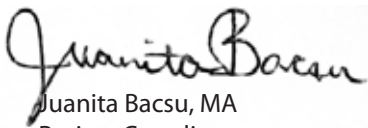
In November of 2009, the Saskatchewan Population Health and Evaluation Research Unit (SPHERU) issued a call for abstracts on knowledge translation. We invited researchers, academics, policy makers, community practitioners and others to submit examples highlighting their work with KT initiatives. We asked contributors to focus on one of the following three themes: KT Strategies; KT in Action: Leading to Change in Policy or Practice; and Evaluation of KT Effectiveness. Our goal of the KT Casebook: Innovations in Knowledge Translation was to provide a toolkit of different knowledge translation (KT) strategies, actions, and evaluations to highlight concrete examples and best practices in knowledge translation.

The Casebook represents a diverse collection of innovative knowledge translation stories ranging from developing a music video for sharing healing stories of Aboriginal women's drug addiction, to a national symposium to promote healthy lifestyle behaviors among school-aged children in Trinidad and Tobago. The casebook provides a means for sharing knowledge translation (KT) strategies, actions, and evaluations to help guide academics, researchers, community practitioners, policy makers and others in their application of knowledge translation.

The KT Casebook: Innovations in Knowledge Translation showcases exceptional scholarly quality across an innovative collection of knowledge translation cases. Cases were peer reviewed and initially selected based on abstract submissions. Following the initial abstract selection, three peer reviews of the full cases were completed for final acceptance. The scholarly work was assessed by a peer review committee including, Nazeem Muhajarine, PhD, Nazmi Sari, PhD, Fleur Macqueen Smith, MA, Juanita Bacsu, MA, and by several independent reviewers, including Verle Harrop, PhD and Hope Beanlands, PhD (c) [National Collaborating Centre for Determinants of Health], and Jennifer Miller, PhD [Interior Health, British Columbia].

We would like to acknowledge the guidance and support of this committee. Further, we would like to thank Penny McKinley, who served as our substantive editor, patiently working with authors on their cases, and Pierre Wilkinson and the design team from the University of Saskatchewan's Printing Services Document Solutions, who made this casebook the attractive document that it is. Finally, we would like to acknowledge our funders: the Saskatchewan Health Research Foundation, who provided SPHERU with team grant funding for our program of research and knowledge translation, of which this casebook is a part, and the University of Saskatchewan for a grant from the Publications Fund.

We believe this casebook provides a valuable toolkit of knowledge translation (KT) strategies, methods, and evaluations, highlighting methods of KT evaluation and factors related to successful knowledge translation. Through this casebook, we are sharing our knowledge, so we can learn from each other and build capacity by highlighting best practices in knowledge translation.



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Institut des neurosciences, de la santé mentale et des toxicomanies

Institut de la nutrition, du métabolisme et du diabète

Institut de la santé publique et des populations

It is our great pleasure to introduce you to these 15 exemplary knowledge translation (KT) cases. At the Canadian Institutes of Health Research, we describe KT as a dynamic and iterative process that includes synthesis, dissemination, exchange and ethically sound application of knowledge to improve the health of Canadians, provide more effective health services and products and strengthen the health care system. This process takes place within a complex system of interactions between researchers and knowledge users which may vary in intensity, complexity and level of engagement depending on the nature of the research and the findings as well as the needs of the particular knowledge-user. All of the cases illustrate the importance of these complex interactions between researchers and knowledge-users, and describe how they “grease the wheels” of the KT process.

We were pleased to note that the research described in many of these stories was funded by CIHR. These cases demonstrate the value of collective wisdom; of engaging relevant stakeholders in a process we at CIHR call integrated KT: a research approach that engages potential knowledge-users as partners in the research process and that requires a collaborative or participatory approach that is action-oriented, and focuses on solutions and having an impact. CIHR has three integrated KT funding opportunities: Knowledge Synthesis grants, in which partners work to synthesize evidence/knowledge relevant to them; Partnerships for Health System Improvement (PHSI) grants, in which partners interested in applied health services and policy research can apply for funds; and Knowledge to Action grants in which partners collaborate to move knowledge into action.

The cases illustrate the value of consulting and involving all key knowledge-users to help them see the relevance and importance of the research—that there is an issue or problem that needs to be addressed—and that their contribution is essential to developing a feasible and practical solution. Another key message is the importance of monitoring knowledge use in order to determine whether or not the KT intervention needs to be modified. Finally, several stories illustrate the importance of evaluation: to monitor knowledge use in order to know the “dose” of an intervention as well as to evaluate intervention outcomes. Planning for evaluation needs to be considered early on in the research process and knowledge-users can make a strong contribution to this planning.

We advocate for the use of a conceptual framework to guide applied research because of the organization it can provide for thinking, for observation, and for interpreting what is seen. A framework can provide a systematic structure and a rationale for activities and can help you figure out “what went wrong” as well as “what went right”. One such conceptual model is the knowledge to action cycle described in the article “Lost in Knowledge Translation: Time for a Map?” (Graham et al., 2006)<sup>1</sup>, based on a concept analysis of 31 planned action theories. It was developed to help make sense of the black box known as “knowledge translation” or “implementation” and offers a holistic view of the phenomenon by integrating the concepts of knowledge creation and action. It has been used as the organizing framework for the book *Knowledge Translation in Health Care. Moving from Evidence to Practice*, published by Wiley-Blackwell. (All royalties from the book go to a CIHR fellowship fund). All phases in the action cycle have been illustrated clearly by different stories in this SPHERU KT Casebook: identifying the problem, adapting knowledge to the local context, assessing the barriers and supports to knowledge use, selecting, tailoring and implementing interventions, monitoring knowledge use, evaluating outcomes and sustaining knowledge use. We suggest that you think about how each case maps on to the knowledge to action cycle as you read through it.

Taken together, the stories in this casebook provide rich examples of KT strategies that can be used to effect change and to evaluate the impact of KT interventions. Many of the cases demonstrate that KT strategies, when done well, can really create an impact.



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<sup>1</sup>Graham, I.D., Logan, J., Harrison, M.B., et al. (2006). Lost in knowledge translation: Time for a map?, *Journal of Continuing Education of the Health Professions*, 26 (13), 13-24.



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The Saskatchewan Health Research Foundation (SHRF) congratulates the Saskatchewan Population Health and Evaluation Research Unit (SPHERU) on this collection of real-life stories about sharing and using research to improve people's lives. The variety of cases reflects the many forms that knowledge translation (KT) can take – from dissemination of research findings to participatory research methods to research-informed decision-making and training.

SHRF is a long-time, active supporter of SPHERU, providing funding continuously since our early days and even back to earlier days, as the Health Services Utilization and Research Commission (HSURC), the agency that preceded SHRF. In those earliest days in the 1990s, support for the creation of SPHERU was strong. Decision-makers recognized the need for research expertise to address health policy and delivery questions related to Saskatchewan's unique demographics, e.g., its large rural and remote populations and its growing Aboriginal population.

SPHERU has always been very committed to connecting with communities and addressing community-based questions. We see evidence of this commitment and its impact through the casebook and SHRF commends SPHERU for its dedication to knowledge sharing.

With its leading-edge research and KT, SPHERU is helping to advance Saskatchewan's Health Research Strategy, in which "applying what we learn" is one of four strategic themes. As part of the Strategy, SHRF undertook extensive consultations on building capacity for KT – sharing and using health research – in Saskatchewan. The final report, *Health Research in Action*, contains practical approaches that many different organizations can use for developing specific plans to share and use health research to improve health and health care. Two key overarching findings were that KT is special process that needs attention and resources, and that KT can take many forms, depending on the issues at hand and the type of research or knowledge required.

SPHERU's researchers and staff have made many contributions in advancing the science of KT and in developing strategies and principles for addressing complex population and community-based health issues in meaningful ways. SHRF is proud to support this innovative, successful group of researchers who are making a difference in people's health and living conditions through their commitment to research and knowledge-sharing.

  
June Bold, CEO,  
Saskatchewan Health Research Foundation

# 1. Recruitment as a KT Strategy

Angela Bowen (College of Nursing, University of Saskatchewan),  
Fleur Macqueen Smith (SPHERU), Nazeem Muhajarine (SPHERU/  
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and the Feelings in Pregnancy and Motherhood Research Team

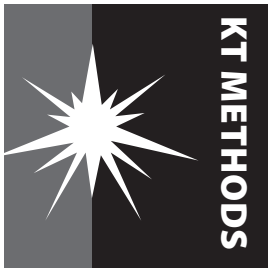




## ABSTRACT

The Feelings in Pregnancy and Motherhood Study is a longitudinal study of depression in pregnant and postpartum women. Our plan for knowledge translation and transfer included end of grant dissemination via refereed journals and conference presentations. Surprisingly, we found ourselves engaging in extensive knowledge transfer to recruit participants, promote the study and connect participants with signs of depression to health service providers.

Our KT activities have led to changes in practice. Many physicians now screen women for depression. A Maternal Mental Health Program has been established, and a provincial awareness campaign and policy recommendations will go to government in 2010. It may not be suitable for every study, but KT during the recruitment stage can inform, lead to change and be rewarding for the researchers.



- *Encouraged health care professionals to assist with study recruitment.*
- *Used a variety of media to recruit participants and increase awareness (posters, radio ads, website, newsletter, newspaper articles and ads, participation in trade shows, and a toll-free phone number to register for the study).*
- *Included contact information for mental health resources on recruitment material for women dealing with difficult feelings.*

## INTRODUCTION

The Feelings in Pregnancy and Motherhood Study, a CIHR-funded longitudinal study of depression in pregnant and postpartum women started in 2005, and the data collection portion of the study ended in December 2008. Our original plan for knowledge translation focused on dissemination via refereed journals, media announcements and conference presentations at the end of the study.

However, we unexpectedly found ourselves engaged in extensive KT activities during the recruitment phase of the study as we needed to explain the study and the importance of depression in pregnancy to local health care providers before we could start recruiting.

Further, since we were screening child-bearing women for depression, we wanted to ensure that there was further assessment and support for women who were identified as experiencing depression. We worked with the health region so that pregnant and postnatal women who were identified as depressed could be treated on a priority basis.

Although we had not planned to conduct KT this early in the study, when the need emerged, we seized the opportunity to share with practitioners and program administrators the most up-to-date knowledge about depression in pregnancy and postpartum.

## METHODS AND STRATEGIES

Knowledge transfer started early. At the beginning of the study, we attended one of the monthly family physician meetings in our health region. We provided a short PowerPoint presentation about our study and informed physicians that we would be referring women who screened positive for depression. We passed around a sign-up sheet inviting doctors to indicate if they were interested in being involved in recruitment.

We followed up with visits to physicians' offices, sometimes giving seminars over lunch, and provided written information about antenatal and postpartum depression and the screening tool (the Edinburgh Postnatal Depression Scale) to physicians and their staff. We went to 12 clinics, some of them more than once, to ensure we talked to everyone interested.

We did not want to use the subjective term of "depression" in our posters, and instead described the study as "feelings in pregnancy and motherhood," which became our slogan and the name of the study. We were asked to appear on a provincial radio call-in show which focused entirely on feelings in pregnant women and new mothers. Women and men called in with their questions and comments about feelings and emotions related to child-bearing. This program helped us to increase awareness of the issue and our study.



To recruit participants and communicate with health care providers, we used posters, articles and advertisements in local newspapers, television interviews, and radio interviews and advertisements on a local radio station. Our materials included a toll-free phone number for people not in the Saskatoon local calling area. We launched a website, [www.feelingsinpregnancy.ca](http://www.feelingsinpregnancy.ca), which included study recruitment information, FAQs (frequently asked questions) about the study, and provided phone numbers for resources in the health regions to deal with difficult feelings, and the lead researcher's email address to assist women who were struggling with depression (see Figure 1). As a result, the lead researcher responded to many emails from women and their supporters seeking help with emotional problems.

To maintain health care providers' awareness of the study, we developed a newsletter that was distributed quarterly to physicians' offices, prenatal programs and other stakeholders. The newsletter's colour and graphics matched our recruitment materials. The study coordinator hand delivered the newsletters to physicians' offices and prenatal programs. At Christmas and other special occasions, the newsletters were attached to boxes of oranges and cookies. We used the newsletter to provide recruitment goal updates and to announce the winners in a draw for the office with the most referrals in the past quarter (a gift certificate donated by a local pizza establishment).

## OUTCOMES

Over time, health care providers not only continued to refer women to our study but also began to call us for information on treatment options and referrals for depression in pregnancy and postpartum. Several family physician and obstetrician practice groups in our region started, and are continuing, to use the Edinburgh Postnatal Depression Scale. We received questions from physicians and their staff about antidepressant use in pregnancy, so we wrote a short article summarizing their efficacy and safety, which we published in our newsletter. We also outlined how physicians could get specialized help for their pregnant patients.

We believe that the KT conducted early in the study led to an increased interest in the study's findings for both health care providers and participants. Women who are participating in our follow-up study have been very interested in the findings, which we have posted on our website. Health care providers continue to attend in-service training sessions we provide, and ask about the outcomes.

As the study was concluding, we obtained a Knowledge Translation grant from the Canadian Institutes of Health

Research. With this funding, we are conducting a provincial social marketing campaign to increase awareness and identification of maternal mental health issues for women, their families and caregivers and to connect them with treatment resources. Visit the campaign's website, [www.skmaternalmentalhealth.ca](http://www.skmaternalmentalhealth.ca), to download the social marketing materials and read more about the campaign.

## CONCLUSION AND LESSONS LEARNED

KT activities enhanced awareness and credibility during the recruitment phase and have increased receptiveness for our more formal end of study KT activities. We have partnered with the Saskatchewan Prevention Institute to develop and distribute information guides and fact sheets, and the Saskatchewan Healthline to link callers with health resources in their part of the province. We are disseminating knowledge about the study's results and distributing social marketing materials on our websites, [www.feelingsinpregnancy.ca](http://www.feelingsinpregnancy.ca) and [www.skmaternalmentalhealth.ca](http://www.skmaternalmentalhealth.ca). If we were to start the study over again, we would plan to use KT from the outset to increase our visibility and consequently our recruitment.

Knowledge transfer during recruitment might not be appropriate for every study, but it can be an effective strategy for sharing important information and increasing awareness. KT that responds to the needs of recruitment partners can help researchers achieve recruitment goals and lead to improvements in knowledge and health.

### **Key lessons learned:**

**Share what you can:** KT during the recruitment stage can inform, lead to change and be rewarding for the researcher. Share what information you can without biasing your study.

**Keep it short and simple:** Physicians and their staff are very busy and have multiple demands for their time. We kept our presentations brief but also left plenty of time for questions.

**Use what you have:** We used items that we had already developed for the pilot study. For instance, we distributed copies of academic posters and handouts about feelings in pregnancy and motherhood that had been developed for the pilot study.

**Communicate often:** We employed many routes for increasing awareness: radio ads, newsletters, posters, web postings and personal visits. As a result, care providers were often reminded of the study and the feelings of their pregnant and postpartum patients.

## LESSONS LEARNED

- Choose your research terms carefully so you don't bias your study.
- Keep it simple. You do not need lengthy presentations or elaborate materials for recruitment.
- Use many different communication methods as possible to build awareness and recruit participants.



# KT Recruitment Strategies

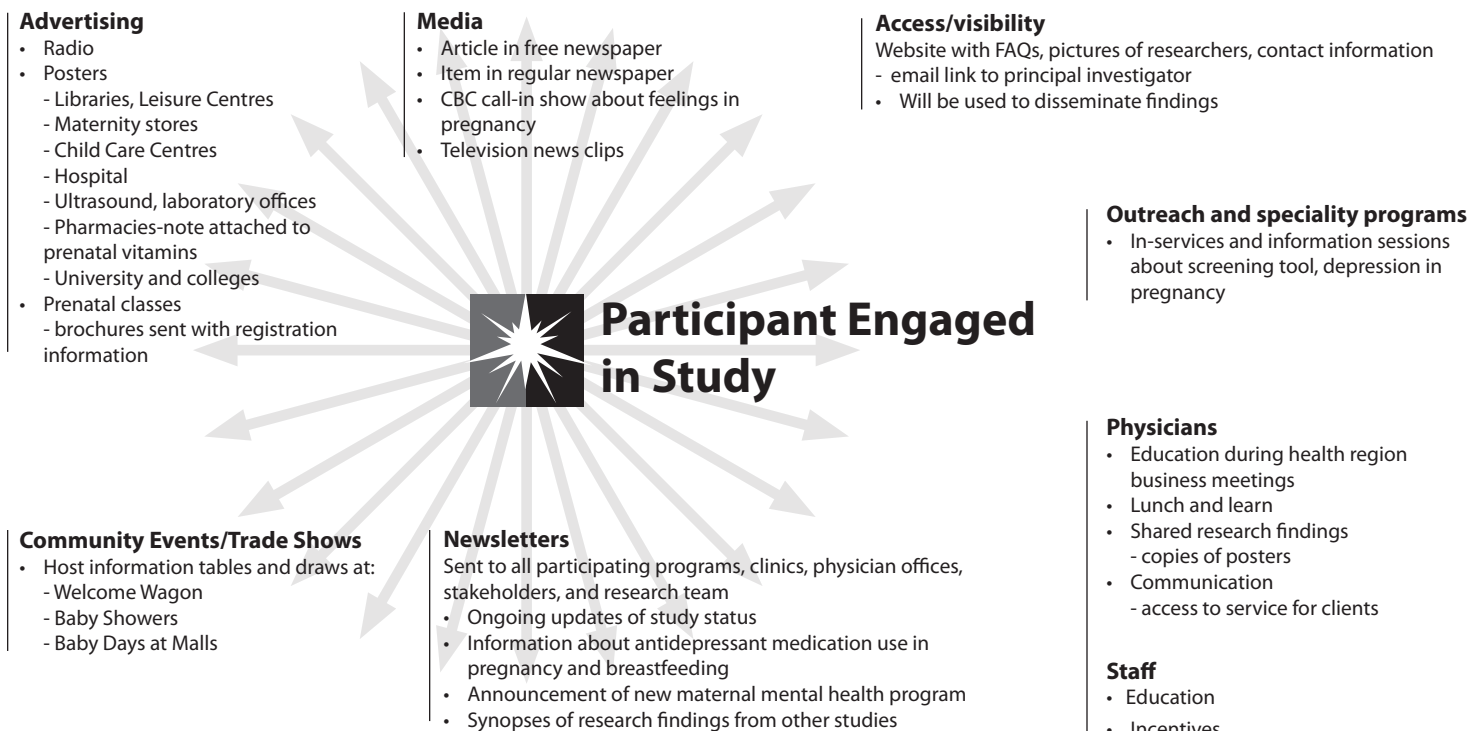


Figure 1

## ACKNOWLEDGEMENTS

Angela Bowen, RN, PhD (Associate Professor, College of Nursing and Associate Member, College of Medicine, University of Saskatchewan) is the main author of this article and co-Principal Investigator on this study.

Fleur Macqueen Smith, MA (Knowledge Transfer Manager, Healthy Children Research Team, Saskatchewan Population Health and Evaluation Research Unit) assisted with KT during the study and helped write this case.

Nazeem Muhajarine, PhD (Professor and Chair, Department of Community Health and Epidemiology, University of Saskatchewan / Lead, Healthy Children Research Team, Saskatchewan Population Health and Evaluation Research Unit) is co-Principal Investigator on this research project and co-author on the article.

The Feelings in Pregnancy and Motherhood Research Team: Rudy Bowen (Psychiatrist, Professor, University of Saskatchewan), Peter Butt (Associate Professor, Family Medicine, University of Saskatchewan), George Maslany (Professor, Social Work, University of Regina), Kathy Pierson (Study Coordinator), Susan Morgan (Research Nurse), Michelle Jungwirth (Interviewer), Erin McKillop

(Graduate Student), Fleur Macqueen Smith (Knowledge Translation).

The Antenatal Advisory Committee: Greg Drummond (Director, Mental Health Services, Saskatoon Health Region), Sheila Achilles (Director, Primary Health Services, Saskatoon Health Region), Pam Woodsworth (KidsFirst), Tony Winchester (Intake Mental Health, Saskatoon Health Region), Marilyn Baetz (Psychiatrist, Associate Professor), Wendy Stefiuk (former Manager of Nursing, Saskatoon Health Region), Annette Gibbins (former Manager Healthy Mother, Healthy Baby, Saskatoon Health Region), Cheryl Hand (Head Nurse, Saskatoon Community Clinic).

We also thank the many physicians and their office staff and prenatal programs in the region for supporting our recruitment efforts.

This research was supported by funding from the Canadian Institutes of Health Research (Grant #145179).

We would also like to acknowledge the Saskatoon Health Region and the Five Hills Health Region. Ethical approval was granted by the University of Saskatchewan and the health regions.

For additional information, contact Angela Bowen (angela.bowen@usask.ca, 306 966-8949).

## FURTHER RESOURCES

Bowen A and MotherFirst Working Group. (September 2010). Maternal Mental Health Strategy: Building capacity in Saskatchewan. Report. 69 pages. Available from: <https://sites.google.com/site/maternalmentalhealthsk/official-announcement-of-motherfirst-report>

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Bowen AN & Muhajarine N. (2006). Prevalence of Antenatal Depression in Women Enrolled in an Outreach Program in Canada. *Journal of Obstetric, Gynecologic and Neonatal Nursing*. 35(4), 491-8.

# 2.

## Voices of Healing:

### Using Music to Communicate Research Findings

Colleen Anne Dell (Sociology/School of Public Health, University of Saskatchewan) on behalf of the CIHR Project Research Team for Aboriginal Women Drug Users in Conflict with the Law: A Study of the Role of Self-Identity in the Healing Journey



*Violet singing "Stilettoes to Moccasins" during a CBC radio interview*



## ABSTRACT

The findings of a drug addiction study were translated into a song and music video, From Stilettos to Moccasins. The music provided a culturally-relevant KT strategy to communicate women's healing stories to diverse audiences.

The team learned that it was important to follow their natural collective wisdom. Members of the research team and women who shared their stories in the study worked collaboratively to create the song and music video. Music provided a neutral space in which to work as no one was considered an expert. As a result, participants were on an equal footing and able to collaborate by drawing on personal and group strengths.

The research team relied on outside organizations and a variety of communication methods to disseminate the song and video. The public and media response was very positive, and participants, viewers and research team members have been empowered by the process. However, it would have been helpful to have included an evaluation feedback mechanism to measure the project's impact.



- 
- *Collaboratively wrote and recorded a song and created a music video to share research findings.*
  - *Released song and video at a national conference, disseminated it to many stakeholders, and posted it on YouTube.*
- 

## BACKGROUND

The use of drugs among Aboriginal women is a significant health concern in Canada. Little is understood about how women's healing is impacted by their views of themselves as a result of the stigma associated with being a drug user, involved in crime, and a First Nations, Inuit, or Métis woman.<sup>1</sup> In response, our project, Aboriginal Women Drug Users in Conflict with the Law: A Study of the Role of Self-Identity in the Healing Journey, was initiated in 2005.

The research team represents a diverse array of experiences and expertise from across the country, including treatment providers, Elders, community members and organizations, women with lived experience, university researchers, government decision-makers, and mentors. The research is spearheaded by the National Native Addictions Partnership Foundation, the Canadian Centre on Substance Abuse and the University of Saskatchewan.

Story-sharing sessions (interviews) took place over a 12-month period with women in treatment for drug abuse, women who had completed treatment and National Native Alcohol and Drug Abuse Program treatment staff.<sup>2</sup> The majority of individuals interviewed were First Nations. The collected knowledge was analyzed from multiple viewpoints and the findings verified with the participating treatment centres.

## REASONS FOR CREATING A SONG AND MUSIC VIDEO

Given the diversity amongst our foundational partners, translating the study results to various audiences was a fundamental element of our research plans from the outset. In addition, hearing the multiple voices of the individuals involved in the study was foundational to the research process. As a result, the knowledge gained in the study needed to be translated through a culturally-relevant technique that would recognize, legitimize and celebrate Aboriginal women's historically-silenced voices.<sup>3</sup>

A song and a music video were chosen as a KT means to translate the women's experiences of healing from drug addiction. Music has held a significant historical role in communicating knowledge among Indigenous peoples worldwide and continues to have an important role in the lives of Aboriginal peoples in Canada today.<sup>4</sup>

## **METHODS AND STRATEGIES**

### ***Songwriting***

The research team hosted a three-day gathering in February 2009 to develop a song that portrayed the healing experiences of Aboriginal women who have struggled with criminalization and drug abuse. Representatives from the research team, community members, and the women and staff that we interviewed worked alongside Violet Naytowhow, a Woodland Cree singer/songwriter.

Violet briefly introduced the process of songwriting, which was likened to storytelling, and various song genres for melody ideas. The team divided into four groups to brainstorm lyrics for the song based on the research findings reflecting the past, present and future elements of healing.

Members of the research team and women who shared their stories in the study worked collaboratively on the creation of the song. The gathering provided a neutral collaborative space as none of the attendees were established songwriters or musicians. The team identified and drew upon personal and group strengths and skills, including openness, imagination, willingness to learn, creativity, vulnerability and listening. This addressed the traditionally disempowering role of participants in the standard hierarchical academic research process.<sup>5</sup>

### ***Producing a Video***

In September 2009 a music video was produced, using a similar collaborative process, in order to provide a visual representation of *From Stilettos to Moccasins*. Team members, women we interviewed and their relations were featured in the video. It was important that we partner with an external company that supported our team's commitment to a balanced research process. This meant that Mae Star Productions followed the direction of our team, recognizing the importance

of women's lived experience leading the process. A rough draft of the video was originally produced, and from here all team members were able to provide their insight and photographs. The video underwent approximately 10 revisions before the final version was agreed upon. The most challenging part of this process was ensuring that the photographs used were fully representative of the song lyrics and that we were not infringing on any copyrights.

### ***Disseminating the song and music video***

The team partnered with public organizations in order to disseminate the song and video as widely as possible and in a culturally-relevant, accessible format. This ranged from grassroots community organizations through to Aboriginal and mainstream media sources.



*Shooting stills for the video*

The song was officially released in May 2009 at a fundraising event for the Elizabeth Fry Society of Saskatchewan. In November 2009 the music video was released at the Canadian Centre on Substance Abuse conference. Both of these venues were chosen for their relevant and supportive environment and potential for related media exposure. A news release accompanied both events, and notable media attention was garnered.

The video was placed on YouTube (search "stiletto to moccasins")<sup>6</sup> and linked to various websites, including Facebook, the Canadian Women's Health Network, TurtleIsland.org, and the project website.<sup>7</sup> Five thousand copies of the song and video were distributed to individuals involved in the project and National Native Alcohol and Drug Abuse Program treatment providers as well as at a variety of community events and conferences.

Venturing into the public domain required steadfast confidence in and complete understanding of our research product. A large-scale dissemination of *From Stilettos to Moccasins* required a willingness to "put on display" the entire research process, ranging from our acquired knowledge about songwriting through to team members with experiential knowledge having the confidence to speak publicly. In addition, although the team has not encountered difficulties within the virtual public domain, team members are well aware of the risk of material being taken out of context.





*Members of our research team*

Working with the communications experts of the project partners was fundamental to the team's success. For example, the news release was jointly issued by the Canadian Centre on Substance Abuse, the National Native Addictions Partnership Foundation and the University of Saskatchewan. The team was fortunate to draw on the expertise of these three organizations in developing a media release because we did not hold that capacity within the team. Further, each of the organizations targeted specific audiences, so the work was widely disseminated.

### ***Empowerment as an indicator of the music's impact***

The song and video provided various forms of empowerment for individuals involved in their creation, including capacity-building, experiential validation and inspiration.

The music also offered empowerment to viewers. The video was recently presented at the conclusion of a nursing conference. The organizer sent an email to say, "It was a dramatic punctuation to the end of the conference. To say that

it was well received would be an understatement. It evoked a visceral response in many people. Dare I say that people left energized and centered, knowing why they are here, and who we serve. With much appreciation."<sup>8</sup>

The feedback indicates the impact of the song and video. It also empowers the team to continue with its work.

### **CONCLUSION AND LESSONS LEARNED**

The team has gained two key lessons from their experience with knowledge translation through the creation of a song and a music video: the need to develop and implement an evaluation plan and the importance of following our team's collective wisdom.

The song and video are being used across the country, from a research facility in British Columbia to a correctional institution on the Prairies and a policing organization in Prince Edward Island, surpassing our team's initial expectations. However, the team does not know what impact the song and music video have had as we did not include an evaluative feedback mechanism in our plans. It is important to know, for example, how the song and video are being used, if they have had an impact, with whom, and the message individuals are taking from the experience. We have recently created an internet survey and are trying to distribute it to as many individuals as possible who have received the song and music video. Retrospectively, of course, this is proving to be methodologically difficult.

Secondly, it took several years for the team to learn to follow the natural guidance of its collective wisdom. Together, individual experiences and expertise create a solid whole for understanding and providing direction. Having trust in one another and in the research journey itself was key. Foremost, this involves leaving behind Western institutionalized preconceptions of what a research process is supposed to look like and individuals' prescribed roles within it.

### **LESSONS LEARNED**

- Experiment with innovative forms of dissemination, which can be empowering.
- Music provides a culturally-relevant and accessible means of recording participants' experiences.
- Partner with other organizations to obtain specialized skills and knowledge.
- Include an evaluation feedback mechanism to measure the impact of your product.



## ACKNOWLEDGEMENTS

Colleen Anne Dell, PhD (Research Chair in Substance Abuse, Associate Professor, Department of Sociology & School of Public Health, University of Saskatchewan) was the principal investigator.

The CIHR Project Research Team, Aboriginal Women Drug Users in Conflict with the Law: A Study of the Role of Self-Identity in the Healing Journey, was an integral part of all aspects of the production of the song and music video.

Violet Naytowhow, a Woodland Cree singer/songwriter, facilitated the song-writing workshop.

The song From Stiletos to Moccasins was recorded by Mosaic Music in Prince Albert, Saskatchewan.

The music video was produced in collaboration with Mae Star Productions, Saskatoon, Saskatchewan.

Funding was provided by the Canadian Institutes of Health Research, the Institute of Aboriginal Peoples' Health; the Canadian Centre on Substance Abuse; the First Nations and Inuit Health Branch, Health Canada; the Indigenous Peoples' Health Research Centre, University of Saskatchewan; the National Native Addictions Partnership Foundation; the National Network for Aboriginal Mental Health Research; and the Research Chair in Substance Abuse, University of Saskatchewan, through a grant provided by the Saskatchewan Ministry of Health.

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For additional information, contact Colleen Dell (colleen.dell@usask.ca, 306-966-5912).

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# 3.

# Supporting Health Decision-Makers with Contextualized Research Evidence

Brendan Barrett (Medicine, Memorial University),  
Stephen Bornstein, Janice Butler, Robert Kean, Pablo Navarro  
(Newfoundland and Labrador Centre for Applied Health Research)



CHRSP website



## ABSTRACT

The demand for research-based evidence to support decision-making in health is increasing. The challenge lies in identifying the priority research needs of decision-makers and in supporting these needs by providing them with a synthesis of the best contextualized information that is available. This ensures that the information is locally relevant and attuned to both the characteristics of the population and the capacities and limitations of the health system.

The Contextualized Health Research Synthesis Program (CHRSP), a flagship program of the Newfoundland and Labrador Centre for Applied Health Research, has developed an innovative approach to knowledge transfer that is done in a timely manner using minimal resources. CHRSP works with decision-makers, identifies high-priority researchable topics, and builds research teams to refine each research question, synthesize the evidence, and determine the implications for the local context. The reports generated by CHRSP permit health decision-makers to apply the evidence from synthesized systematic reviews while taking into account the capacities and challenges of the provincial health system.



- 
- *Worked with decision-makers to identify high priority, locally relevant research questions.*
  - *Conducted knowledge syntheses and distributed them widely to support evidence-based decision making.*
  - *Ensured that stakeholders provided contextual information to assist in identifying the implications of the syntheses' findings.*
- 

## INTRODUCTION

Responding to the health and wellbeing of a population is particularly challenging in a province such as Newfoundland and Labrador where resources are stretched and much of the population resides in small communities spanning a large geographical area.

The decision-making challenges recently identified by the province's senior health officials have included: meeting the needs of individuals with end-stage renal disease who live in rural and remote locations; designing an effective and efficient PET/CT scanning program for a geographically-dispersed population; and developing effective non-clinical interventions to prevent and treat childhood overweight and obesity. It is no surprise that the demand for research-based evidence to support decision-making on health services and health policy issues such as these is increasing.

The knowledge transfer challenge lies in identifying the priority research needs of decision-makers and then providing them with a contextualized synthesis of the best research knowledge available. This ensures that the information is locally relevant

and attuned to both the characteristics of the population and the capacities and limitations of the provincial health system.

## METHODS AND STRATEGIES

Since 2007, the Contextualized Health Research Synthesis Program (CHRSP), a flagship program of the Newfoundland and Labrador Centre for Applied Health Research, has developed and used an innovative approach to this knowledge transfer challenge.

*There are two key characteristics that make CHRSP unique:*

1. Ongoing partnerships and collaboration with top-level health decision-makers at all points in the process, from topic identification to uptake and application of the results, an approach commonly referred to by CIHR<sup>1</sup> as "integrated knowledge translation;" and
2. "Contextualization" of research evidence, both in shaping the research questions being asked and in drawing conclusions from the synthesized evidence in order to support local decision-making.

Despite its large geographic size, Newfoundland and Labrador is divided into only four regional health authorities, while provincial matters fall under the jurisdiction of the Department of Health and Community Services. This relatively small number of key health organizations facilitates the development and maintenance of partnerships. The program team capitalized on past relationships with the Chief Executive Officers (CEOs) of the four Regional Health Authorities and the provincial Deputy Minister and was successful in establishing a network of key stakeholders who were seeking research evidence to support health decision-making.

Past experience has demonstrated that simply providing decision-makers with summaries of the latest and best international and national research evidence was insufficient to support decisions for a province with unique population health challenges. This realization led the CHRSP team to develop a process that provides decision-makers with information that is locally relevant and attuned to the characteristics of the population and the health system.

Twice a year each health organization is invited to submit a list of topics of interest to its region and local population. The lists are subjected to a set of filtering criteria that take into account, among other things, the availability of research evidence on each topic. Topics for which there is insufficient high-level research evidence are filtered out, and the remaining topics are re-examined with the health system partners. An iterative consensus-building process results in a short list of the top three topics that forms the basis for the next set of projects.

Once the top three topics are identified, a research team is formed for each one. The team is led by a distinguished researcher, usually from outside the province, who is an expert in the subject area. Other members of the team include a senior health system partner, other academic researchers, a health economist and a CHRSP project coordinator. The health system partner is the Chief Executive Officer of one of the Regional Health Authorities or the Deputy Minister of the provincial health ministry.

These health system experts, along with others from their organizations, play a key role in supporting the second unique feature of the Contextualized Health Research Synthesis Program – contextualization. The key stakeholders work with the team to refine the research question so that it speaks to the province's unique needs. For example, our decision-makers did not have a broad, generalized interest in dialysis services for individuals with end-stage renal disease. They specifically

needed to know how best to provide these services for rural and remote populations in a province that is geographically dispersed and has limited financial and human resources.

The stakeholders assist in identifying the factors that are relevant in the context of Newfoundland and Labrador, including patient-related factors, human resource factors, and economic and political factors. To address these local factors, the research team collects supporting information, including statistics and government reports, and consults with local experts in the field. All this information is taken into account in the final interpretation of the research evidence. Each team

member has input into the various drafts of the final report, which is then reviewed by an external expert in the subject area.

CHRSP uses multiple methods to distribute the research information and support evidence-informed decision-making. These include meetings, presentations and online access to both executive summaries and full reports on our website

at <http://www.nlcahr.mun.ca/research/chrsp/>. In addition, the cyclical nature of the CHRSP's work

provides opportunities for ongoing knowledge transfer and capacity-building.



## CONCLUSIONS AND LESSONS LEARNED

In the early stages of the program, we invested in relationship-building and established strong buy-in from the senior health system partners. While these partnerships continue to benefit the program, we soon recognized that the CEOs and the Deputy Minister were often much too busy to give immediate attention to non-urgent requests for input. Accordingly, late in 2009, the program was expanded to include other senior executives in the province's health organizations. These individuals, referred to as "CHRSP Champions," are senior members of the health organizations who act as liaisons between the CHRSP team and the top-level system partners.

The introduction of Champions has brought new challenges. It has been necessary to tailor the approach depending on the size and dynamics of the health organization, to ensure that communications are inclusive and enhance internal consultations within each organization, and to incorporate flexibility while still meeting deadlines.

The relationship between health researchers and policymakers has undergone significant change since the inception of the program. Whereas in the past health researchers were pushing the results of national and international research toward the key stakeholders, the Contextualized Health Research Synthesis Program has generated an increasing amount of pull from local

decision-makers requesting contextualized research evidence. The growing demand for evidence has produced the inevitable challenge of insufficient capacity, and so we are developing new methods that will provide more rapid support.

An unexpected, positive outcome of our work is that health organizations have, for the first time, actively engaged in information-sharing with one another about their high-priority issues. This is particularly true for the provincial ministry, which appears to have gained a new perspective on the priorities of the regional health authorities.

Measuring the uptake and impact of CHRSP reports has presented a challenge. User surveys are voluntarily completed when downloading reports from the Newfoundland and Labrador Centre for Applied Health Research website, and records are kept of media references to the program as well as special requests for reports. We are also collecting anecdotal information on the use of these reports in decision-making and have confirmed that:

#### 1. The CHRSP report on the provision of dialysis services in rural and remote

populations<sup>2</sup> has been used by the Provincial Kidney Program to inform government policy.

2. Key stakeholders, who have been tasked with the implementation of a positron emission tomography/computerized tomography program in the province, have requested the report on the development of a PET/CT program.<sup>3</sup>

3. The CHRSP report on effective non-clinical interventions to prevent and treat childhood overweight and obesity<sup>4</sup> is one of several guiding documents for the Division of Wellness and Health Promotion, Department of Health and Community Services.

We believe that our approach could be exported to other, similar jurisdictions. The key ingredients for successful implementation of this approach are research infrastructure and expertise; stakeholder interest, availability and capacity to participate in this integrated process; and adequate funding and goodwill to support the program.

## LESSONS LEARNED



- Invest early in relationship-building to identify champions and establish strong buy-in from top-level stakeholders.
- Establish champions to act as liaisons between the research team and decision-makers.
- Integrated knowledge translation can lead to knowledge sharing and capacity building.

## ACKNOWLEDGEMENTS

Brendan Barrett, MB, MSc, FRCPC (Professor of Medicine, Memorial University) is a special advisor to the CHRSP program and was project leader on the Dialysis project.

Stephen Bornstein, PhD (Director, Newfoundland and Labrador Centre for Applied Health Research) is the Program Director for CHRSP and provides direction and input on all projects.

Janice Butler, MN, MSc (Medicine) (Research Officer, NLCAHR) is the Program Coordinator for CHRSP and was the Project Coordinator on the PET/CT and Dialysis projects. She also wrote this report.

Pablo Navarro, MSc (Medicine) (Research Officer, NLCAHR) is a CHRSP Project Coordinator who worked on the child and youth overweight and obesity report.

Robert Kean, MA (Research Assistant, NLCAHR) provides research support for all CHRSP projects.

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## FURTHER RESOURCES

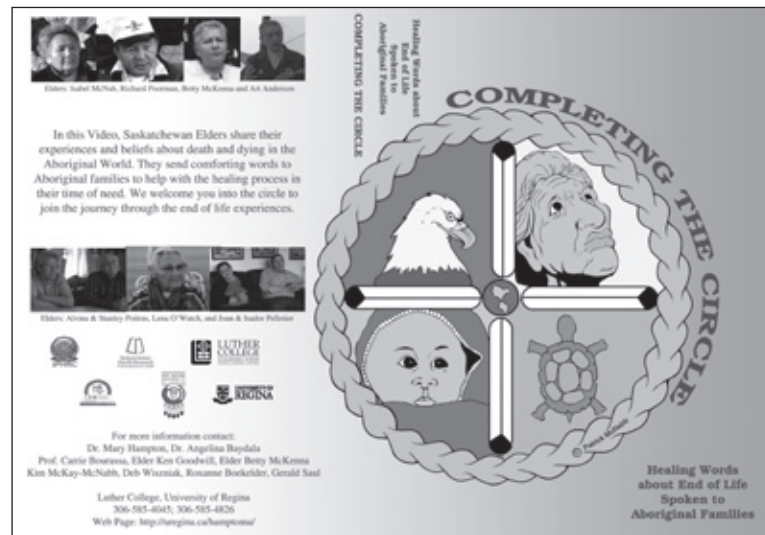
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# 4.

# Sharing

## Stories through Video: Aboriginal Elders Speak About End of Life

Mary Hampton (Psychology and SPHERU, University of Regina), John Hampton (videographer and independent conceptual artist), Gerald Saul (Media and Production Studies, University of Regina), Carrie Bourassa (First Nations University of Canada), Elder Ken Goodwill (First Nations University of Canada), Elder Betty McKenna (RESOLVE Saskatchewan), Kim McKay-McNabb (First Nations University of Canada), Angelina Baydala (University of Regina)



*The DVD jacket cover for Completing the Circle: Healing Words about End of Life Spoken to Aboriginal Families*



## ABSTRACT

Our research study, *Completing the Circle: End of Life Care with Aboriginal Families*, is designed to enhance awareness among non-Aboriginal health care providers of culturally appropriate end-of-life health care for Aboriginal families; and increase awareness among Aboriginal families of existing resources and traditional end-of-life protocol. Our research team has produced five videos documenting the voices and knowledge of Aboriginal Elders speaking about end of life.

We chose to use video as a method of knowledge translation in order to allow Elders to share their words using the traditional method of conveying knowledge orally and experientially, rather than filtered through researchers' analytic interpretation. Video documentation is a close approximation to the vibrational healing voice quality that Aboriginal Elders use when conveying traditional knowledge.

To produce these videos, we identified knowledgeable Aboriginal Elders at powwows and asked them what messages they would like to convey to health care providers. We worked with the elders and film and media experts to produce five videos and accompanying presentations. To date, the videos have been disseminated to over 85 audiences and have been well received by non-Aboriginal health care providers and Aboriginal community members.



- *Elders were videotaped sharing their stories on end of life to increase awareness of culturally-appropriate practices.*
- *Elders provided guidance on KT process at all stages, and film and media experts oversaw the production of videos.*
- *Videos are often presented as part of an interactive workshop, with a speaker and accompanying PowerPoint presentation.*

## INTRODUCTION

Our program of research is called *Completing the Circle: End of Life Care with Aboriginal Families* (funded by the Canadian Institutes of Health Research). It is designed to enhance awareness among non-Aboriginal health care providers of culturally appropriate end-of-life health care for Aboriginal families, and to increase awareness among Aboriginal families of existing resources and traditional end-of-life protocol. For health care providers, this includes being respectful of the nationality, culture, age, sex, political and religious beliefs of those for whom they are caring. For Aboriginal peoples, this means listening to and understanding their unique needs at end of life.

We felt that one way to convey this type of information was by videotaping Aboriginal Elders speaking about their world view of death and dying, as well as the health care needs that may emerge as Aboriginal communities experience the death of one of their members.

Video has proven to be a powerful medium for conveying narratives of Aboriginal Elders and community members to a wide audience who may not always have access to an Elder for guidance.<sup>1,2</sup> It has been shown to be an effective teaching tool for cultural instruction and can be combined with academic knowledge to convey cross-cultural information. In addition, video enables Elders to share their words using the traditional method of transmitting knowledge orally and experientially, rather than filtered through academic analytic interpretation.

We are aware that the healing vibrational voice quality of Aboriginal Elders that is conveyed person to person orally cannot be accurately translated into video. However, our goal was to reach a large audience, and video documentation is a close approximation of the vibrational healing voice that Aboriginal Elders use when conveying traditional knowledge.

## METHODS AND STRATEGIES

Our research team produced five videos documenting the voices and knowledge of Aboriginal Elders speaking about end of life. Two of these have been widely disseminated: a 23-minute video and accompanying PowerPoint presentation designed to communicate information to non-Aboriginal health care providers and a 52-minute video documenting traditional end-of-life protocol for Aboriginal families.

We wanted to create a space for Aboriginal Elders to speak to non-Aboriginal health care providers about their unique cultural needs when they or a loved one are at the end of their life walk or, in their words, “completing the circle.” We felt a video could be viewed in a short period of time and could contain important messages from Elders and Aboriginal cultural images, including images of healthy Aboriginal Elders and community members.

We identified knowledgeable Aboriginal Elders at powwows and asked them what messages they would like to convey to health care providers. This organic method differs from a didactic, scripted approach, which would have been incongruent with our goal of increasing awareness of traditional cultural beliefs and protocol. This was an ethical manner in which to proceed, and the hard work of our diverse and collaborative research team established our credibility and the trust of Aboriginal Elders and communities. While developing our materials, we followed traditional Aboriginal protocol through use of prayer, pipe ceremonies and asking for Elders’ guidance.

For example, images such as sweet grass (which is generally not allowed to be photographed or videotaped) have been sanctioned for public use in our educational modules by a group of Elders in our region. We were also able to collect a library of background images (B roll footage) appropriate for this video series and will continue to collect images and sounds that can enhance the feeling and power of our messages.

Each video topic has been suggested as a high-priority research subject by Aboriginal community members and Elders. Undergraduate film and media students, who are either of Aboriginal ancestry or who are already familiar with Aboriginal epistemology, were hired to edit the videos under the supervision of Professor Saul.

The advising Elders for our project wanted the videos to be presented in person, with a “teaching” prior to the video and space for dialogue afterwards. Our team made many in-person presentations to a variety of health care providers in our province and across the country. We could not, however, physically keep up with the demand for members of our team to present in person, so we videotaped the presentations of these team members delivering their PowerPoint presentation.

The entire video and PowerPoint can be viewed in an hour-long format, which fits into many health care providers’ teaching/seminar time frames. We created a DVD order request form<sup>3</sup> to track requests for our video productions and to facilitate dissemination to a wide audience.

## CONCLUSION AND LESSONS LEARNED

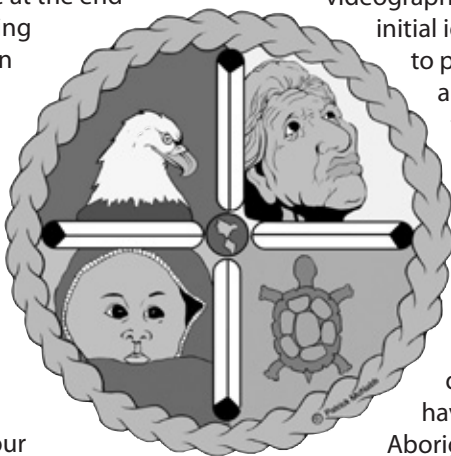
An important lesson learned was to assemble an intercultural, cross-disciplinary team of people with unique skills. For instance, we brought together academic non-Aboriginal researchers, academics with expertise in new media and videography, and Aboriginal Elders and academics. Our initial idea was to contract with a medical media firm to produce the video, but we found this scripted approach to be incongruent with our goals to convey words in a traditional and natural manner.

We followed research guidelines proposed by CIHR and the National Aboriginal Health Organization<sup>4</sup> and attempted to create an ethical space for knowledge translation and for cross-cultural dialogue inquiry during production of our videos. The videos have been well received by health regions, Aboriginal health care agencies and academic institutions in seven provinces and territories and have been viewed by over 85 audiences. In addition, our videos and accompanying descriptions are available on the Canadian Virtual Hospice<sup>5</sup> website, as well as a more detailed description of this project.<sup>6</sup>

Audience responses from screenings suggest that video is an effective method of translating traditional Aboriginal knowledge. For example, one viewer stated, “The greatest benefit was hearing the voices of the Elders—having generational knowledge passed on relatively unfiltered by outsiders.” Another said, “The most important thing I learned was knowing the things that I can do as a nurse to help the families of the dying, to allow the dying to continue their journey with the things they need from family.”

Video distribution is also an efficient method of reaching a large audience. The video and accompanying PowerPoint presentation contain important messages from Elders told in a storyline format that can be viewed by health care providers in a short period of time.

We believe our work has had an impact on Aboriginal communities as well as health care providers. One of the participating Elders passed away this year, and his family requested copies of the video and original interview videotape so that his words could guide them as they honoured his journey. We are still receiving offers from Aboriginal Elders to share their stories and knowledge with us, and we continue to produce more videos conveying messages from Aboriginal Elders and community members. We hope that this knowledge is useful to many audiences.







Elder Betty McKenna

## LESSONS LEARNED

- Video is an acceptable media to many Aboriginal people if you establish trust by proceeding in an ethical manner.
- A cross-cultural, interdisciplinary team is important, as each member brings his or her talents to the table.
- It is important to follow traditional Aboriginal protocol, such as asking Elders for advice, and integrating ceremony and prayer into the research process.
- A combination of videotape and PowerPoint allows for wider distribution than is possible with in-person presentations.

## ACKNOWLEDGEMENTS

Mary Hampton, Ed. D (Professor of Psychology, Luther College, University of Regina; Adjunct Faculty, Saskatchewan Population Health and Evaluation Research Unit) is the nominated principal investigator for this program of research, submitted the grant proposals, and organized data collection and analysis.

John Hampton, BA (Videographer and Independent Conceptual Artist) is the videographer who videotaped many of the interviews, collected the "B" roll footage, and edited the videos, adding many creative details.

Gerald Saul, MA (Associate Professor, Department of Media Production and Studies, University of Regina) is co-investigator on this research program and the academic/creative artist who was responsible for the creative and production aspects of these videos.

Carrie Bourassa, PhD (Associate Professor, First Nations University of Canada) and Angelina Baydala, PhD (Associate Professor, University of Regina) provided academic and cultural guidance.

Elder Ken Goodwill (First Nations University of Canada) and Elder Betty McKenna (RESOLVE Saskatchewan) are guiding Elders on the project and also contributed their voices, images and songs.

Kim McKay-McNabb, MA (Assistant Professor, First Nations University of Canada) recruited and videotaped interviews at powwows as well as coordinating data analysis.

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For additional information, contact Dr. Mary Hampton (Mary.Hampton@uregina.ca, 306-585-4826)

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# 5.

## A community of practice checklist: six easy ways for researchers to connect with decision-makers

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Nazeem Muhajarine (Community Health and Epidemiology/SPHERU, University of Saskatchewan),  
Jeffrey A. Smith (Digital Research Centre, University of Saskatchewan),  
Sue Delanoy (Kinsmen Activity Place, Saskatoon)



*Tagcloud of one of the qualitative interviews (the larger the word, the more it was used in the interview)*



## ABSTRACT

Current literature indicates that communities of practice are an effective way to transfer knowledge and to connect researchers and decision-makers who are working to improve policy and practice. Following the end of a seven-year collaborative research project on early childhood development in Saskatoon, we launched a provincial community of practice (kidSKAN) to continue the work that had already begun.

The literature has tended to concentrate on what knowledge transfer is and why researchers should do it, not on how it can be done. We developed a six-point checklist in order to guide the development of effective communities, both in person and online. The checklist can be used to guide any kind of community of practice, not just those in which members work on early childhood development or those in which researchers and decision-makers interact.

Our experience with the checklist indicates that online communities are more successful when members have had some face-to-face contact. Online technologies can supplement face-to-face contact but require careful consideration, time and expertise.



- *There is no substitute for face-to-face interaction, which builds trust.*
- *Online communications technologies can supplement face-to-face interaction, although their use requires careful consideration, time and expertise.*
- *Online communications strategies supported by place-bound events are an effective means of building a community of practice.*

## INTRODUCTION

In late 2007, Saskatoon's seven-year Understanding the Early Years study wrapped up. This study was conducted as a community-university partnership, co-led by Sue Delaney, executive director of Communities for Children, Saskatoon's Planning Council for a Child and Youth Friendly Community and coordinator of special projects for Kinsmen Activity Place, and Nazeem Muhajarine, a faculty member and leader of SPHERU's Healthy Children research team.

Understanding the Early Years examined children's social and physical environments (their families and communities) from birth to age five and how these environments related to their school readiness outcomes in kindergarten. We worked closely with both Saskatoon school boards, as well as a community coalition made up of organizations working with young children, and were able to identify many instances in which the project contributed to improvements in policies and practices.

However, we felt there was still work to do, so we launched a provincial community of practice, now known as kidSKAN, the Saskatchewan Knowledge to Action Network for early

childhood development ([www.kidskan.ca](http://www.kidskan.ca)), with funding from a Knowledge to Action grant from the Canadian Institutes of Health Research.

## METHODS AND STRATEGIES

Communities of practice are informal groups of people who share a common interest and come together to reflect on and improve their practice together.<sup>1</sup> Knowledge transfer literature indicates that communities of practice are an effective way to develop and nurture the kinds of relationships between researchers and decision-makers that lead to research uptake.<sup>2</sup>

Communities of practice have many of the same benefits of partnerships, with a few additional benefits. First, researchers and decision-makers do not need to be working on a specific research project in order to join the community, although they may get involved in a project as a result of their interactions in the community. Second, communities of practice can have a lifespan beyond any project, providing a way for members to stay connected with people who share their interests on an ongoing basis.

## **Developing a checklist**

In order to guide the development of kidSKAN, we developed a six-point checklist for building effective communities in person and online. Items in the checklist were based on a literature review of communities of practice and careful consideration of our own practices in conducting collaborative research projects. This checklist was tested and validated by conducting case studies with two communities of practice, collecting data through semi-structured interviews with nine members of these communities, and conducting a review of the documents they provided.<sup>3</sup> Our interest in developing a practical tool such as this came from a review of the knowledge transfer literature up to the early part of this decade. The literature tended to concentrate more on what knowledge transfer is and why researchers should do it, not on how it can be done.

In addition, we had previously developed and published a five-item checklist on our decision-maker-based approach to conducting research projects with decision-makers,<sup>4</sup> which we have found useful in guiding collaborative projects. As a result, we could see the value in developing a similar practical tool for guiding our development of a community of practice.

Further, we wanted to be able to validate this checklist by researching communities of practice, rather than drawing only on the academic literature and our own experiences with decision-makers, as had been the case previously. The checklist can be used to guide any kind of community of practice, not just those in which members work on early childhood development or those in which researchers and decision-makers interact.

### **A community of practice should:**

#### **1. Provide opportunities for regular interaction**

To establish an identity, communities need public events that happen often enough to build momentum. Researchers have found that online communities are more successful when members have had some face-to-face contact, which helps build trust more quickly and easily.

- kidSKAN is meeting this need by organizing regular meetings and networking events, supplemented by a web community that is always available ([www.kidskan.ca](http://www.kidskan.ca)).

#### **2. Allow participation to vary over time**

Communities need to respect members' varying involvement and whatever time they are able to give. Over time, peripheral members may take on larger roles, while other, more active members step aside due to other commitments. Online environments can be good starting places for peripheral members as they can follow a community's activities easily and contribute when they feel ready to do so.

- kidSKAN is meeting this need by offering members the ability to choose and modify their own participation levels in community activities, both in person and online.

#### **3. Provide public and private spaces to interact**

Communities need to create both public spaces in which many members can interact and private spaces for smaller groups of people. Members need ways to target information to different audiences; online environments can facilitate this through web personalization (tailoring the information displayed on a website to an individual's characteristics or preferences).

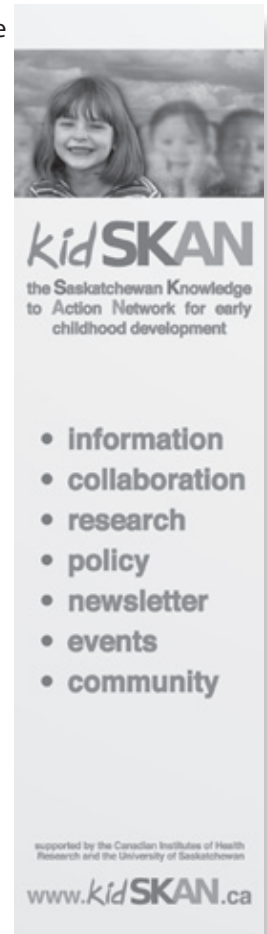
A community needs to be transparent in its activities and decision-making. Online environments can facilitate transparency as activities and decisions can be documented in a clear and accessible way.

- kidSKAN is meeting this need by creating public and private spaces, both at events and online. It is encouraging private interaction by providing networking opportunities at events and online opportunities with a database of early childhood development contacts. There are both public and private discussion forums on the website. The website targets content to various audiences and provides a public space to document activities and decisions.

#### **4. Document activities, goals and outputs**

There is great potential for online technology to support communities of practice by documenting activities and building a knowledge repository. But there are many issues that need careful consideration: organization, ease of access, and ease of use to name a few.

- kidSKAN is meeting this need with its web community, a public repository of knowledge targeted to various audiences to which anyone can contribute (submissions are reviewed). It houses regular announcements and updates on community activities and goals, which members can follow by receiving email notices when content is posted, or by receiving our twice-monthly email newsletter. It has also created short videos to highlight projects and members, and longer videos of events, which are posted on the kidSKAN YouTube channel ([www.youtube.com/kidskanadmin](http://www.youtube.com/kidskanadmin)).



*kidSKAN bookmark*

## 5. Enlist a technology champion

Online communities are in their infancy compared to place-based communities. According to community of practice guru Etienne Wenger, technology has changed what it means to “be together.”<sup>5</sup> Communities that want to harness technologies such as websites, discussion forums, wikis and social media effectively need technology champions to support and guide them and to help them determine what tools to use and when.

- kidSKAN is meeting this need with the expertise of Jeff Smith, a computer science researcher with many years of industry experience and expertise in interdisciplinary collaboration and fostering creativity.

## 6. Identify the value of the community itself

Communities of practice can reveal and legitimize relationship building as a normal, necessary part of the research and knowledge discovery process. They can also keep people engaged in their work by creating time and space for reflective practice. Although surveys and other quantitative measures

can be used to try to capture a community’s impact, stories told by its members may demonstrate the greatest impact.

- kidSKAN is meeting this need by gathering stories of its impact on an ongoing basis, with an eye to evaluating the community when it is more mature.

## CONCLUSION AND LESSONS LEARNED

The community of practice concept is a powerful one for researchers and decision-makers who want to work together to improve their practice. In developing a checklist, we gained insights into how communities of practice function, how they are using technology and how they can improve their use of technology. This checklist is widely generalizable in that it can help guide any kind of community of practice, not just those in which members work on early childhood development or those in which researchers and decision-makers interact. It is a valuable contribution to knowledge transfer methods at a time when both interest levels and efforts to improve knowledge implementation are widespread.<sup>6</sup>

And finally, community building is all about developing good relationships. Community members have varying levels of motivation, responsibility and authority to act. The reasons that they are participating (or not) may be neither explicit nor compatible with other community members or the community as a whole. Keeping these truths in mind may help you to build a common agenda for your community.

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### ACKNOWLEDGEMENTS

Fleur Macqueen Smith, MA (Knowledge Transfer Manager, Healthy Children Research Team, SPHERU, University of Saskatchewan) developed and tested this checklist as part of her Master’s degree in Interdisciplinary Studies at the University of Saskatchewan. LINK to MA She also wrote this report and manages kidSKAN, and is a co-applicant on the CIHR grant.

Nazeem Muhajarine, PhD (Professor and Chair, Department of Community Health and Epidemiology, University of Saskatchewan/ Lead, Healthy Children Research Team, SPHERU) served on Macqueen Smith’s Master’s committee, had the initial idea to develop and test a model of communities of practice, and is principal investigator on the CIHR grant.

Sue Delanoy (Special Projects Coordinator for kidSKAN, Kinsmen Activity Place, and the Child Care Advocacy Association of Canada), along with Macqueen Smith and Muhajarine, was central to the Saskatoon Understanding the Early Years study and serves as kidSKAN’s community partner, and is a co-applicant on the CIHR grant.

Jeffrey Smith, PhD (Manager, Digital Research Centre, University of Saskatchewan) is kidSKAN’s technology champion, led website development, and is a co-applicant on the CIHR grant.

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For additional information, contact Fleur Macqueen Smith (fleur.macqueensmith@usask.ca, 306-966-2957).

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[etd-05122010-121406/](http://library2.usask.ca/theses/available/etd-05122010-121406/). In 2011, she was awarded one of the National Collaborating Centres for Public Health’s Knowledge Translation Graduate Student Award for this work.

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### FURTHER RESOURCES

Macqueen Smith’s thesis, *Using online communications technologies and communities of practice to strengthen researcher-decision maker partnerships*, can be retrieved from: <http://library2.usask.ca/theses/available/etd-05122010-121406/>

The kidSKAN website can be viewed at [www.kidskan.ca](http://www.kidskan.ca). Its YouTube channel is [youtube.com/kidskanadmin](http://youtube.com/kidskanadmin).



# 6.

# Knowledge

## Translation in Developmental Disabilities: Voices from the Community

Toby L. Martin, Shahin Shoostari,  
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SASKATCHEWAN POPULATION HEALTH AND EVALUATION RESEARCH UNIT

## ABSTRACT

In 2008, the interdisciplinary research team at St. Amant Research Centre in Winnipeg, Manitoba, held three community workshops on knowledge translation (KT) in developmental disabilities. A total of 64 stakeholders participated, representing the perspectives of administrators, parents, policymakers, practitioners and researchers. At each session, we introduced the CIHR conceptual framework for KT, assessed KT capacity, discussed contextual factors that facilitate and impede knowledge use for each stakeholder group, and considered future directions for the development of KT processes.

We learned that effective KT regarding developmental disabilities poses many of the same challenges observed in other health care areas and for other populations. Parents and other knowledge users desire increased networking and access to sources of knowledge appropriate to their backgrounds and education in order to promote health and enhance life quality for those living with developmental disabilities.

The participants encouraged researchers and stakeholders to promote opportunities for collaboration. Many participants suggested revising organizational policies and practices to reflect research as a priority and to support staff becoming involved in research.



- 
- *Held three workshops with a range of stakeholders to strengthen partnerships and learn about research priorities and contextual factors that facilitate and impede knowledge use.*
  - *Introduced a basic conceptual framework for KT to facilitate and focus the discussions.*
  - *Used self-assessment tools and an active exchange of information so that the workshop itself is a form of KT.*
  - *Evaluated workshops to learn about their impact.*
- 

## INTRODUCTION

People with developmental disabilities face serious challenges in all areas of their lives, from education and work to health and daily living. Research in developmental disabilities, therefore, addresses many areas including genetics, diagnosis, related health issues, learning and education, independent living, health and well-being, employment, socialization, recreation, aging and palliative care.

Families touched by developmental disabilities are often bewildered by the amount of information about treatments and services. Moreover, sorting facts from fiction can be a daunting task. Practitioners often have no access to scientific journals to guide their practices. Administrators and policymakers need evidence to make informed decisions on resource allocation.

St. Amant is a not-for profit organization that is a comprehensive resource for Manitobans with developmental disabilities, and autism, and offers a wide range of programs and services to support individuals and their families. St. Amant includes a Research Centre, which works to improve quality of life for individuals with developmental disabilities through research and education. The Research Centre uses an interdisciplinary approach to create new knowledge and translate our research into useful information for caregivers, practitioners and policy-makers. We feel a social and scientific responsibility not only to create new knowledge, but to bring research to life for everyone affected by a developmental disability. To this end, we are collaborating with stakeholders to lead the implementation of a knowledge translation process for Manitoba and beyond.



## METHODS AND STRATEGIES

The St. Amant Research Centre team includes experts in community health, nursing and psychology who share a goal of improving the quality of life for people living with intellectual and developmental disabilities through research. In 2008, we held three community workshops sponsored by the Canadian Institutes of Health Research (CIHR) to discuss knowledge translation in developmental disabilities. In total, 64 individuals from Winnipeg and rural areas in Manitoba participated in the workshops, either by invitation or through participation in an open session at a local annual conference on developmental disabilities and autism. Participants, who self-identified, represented the perspectives of four stakeholder groups. There were 21 researchers, 17 practitioners, 16 administrators and policymakers, and 10 parents.

*All the workshops consisted of four key activities:*

1. Introduced the CIHR conceptual framework for KT;<sup>1</sup>
2. Assessed the participating organizations' and individuals' KT capacity using a 27-item self-assessment tool adapted from one provided by the Canadian Health Services Research Foundation;<sup>2</sup>
3. Discussed the self-assessment results in order to identify factors that play an important role in facilitating and impeding KT within participants' work, organizational or family context; and
4. Discussed future directions for developing KT processes and practices and identify concrete ways that researchers and stakeholders in Manitoba can work together and build upon the day's successes.

As "an active exchange of information between the researchers who create new knowledge and those who use it,"<sup>1</sup> the workshops not only had KT as their subject matter but were themselves a form of KT.

## ***Factors Facilitating and Impeding Knowledge Translation***

Topics that recurred most frequently during the discussion of facilitating factors included the critical role of peer networks in the knowledge translation process. We heard that, "[p]eer networking is successful because it is efficient," and that peers are often a "more relevant source because they are able to provide concrete examples." Peer networking was seen as especially important by parents, who emphasized that KT processes must meet the needs of "two types of parents: 1) those belonging to groups, associations; and 2) individual parents who are not part of a larger group."

Attendees affirmed that they value research highly and noted the breadth of its application. We heard, for example, that direct care providers "want to give the best possible care," while administrators "recognize and value how research can play a role in the development and shaping of policies." Both parents and practitioners recognized that a developmental disability is a lifelong condition. Thus, research is important, "in early years for diagnosis" and "in middle/late years for deciding on best practices and education."

Topics that recurred most frequently during the discussion of impeding factors included research accessibility. For example, we heard that research should be "presented at conferences that we can access" and "available online; everything published should be freely accessible" and not solely "in journals which are difficult to get a hold of." Furthermore, abstracts should be "written in plain language so we can see if it's relevant [because] language usage is sometimes way above our understanding."

Many participants suggested that improved KT must start with organizational support. Finding the time to stay abreast of research findings was recognized as a major challenge. One participant wished to see a situation where "using best practices is an operational policy, organization is committed to it, and they support that policy by providing resources." Another saw the key as "having an organizational culture that values continued learning." A dedicated research coordinator position and/or research liaison was also proposed.

The theme of collaboration recurred. It was suggested that organizations should invite researchers to sit on their board committees and that the connection between academic research and field training programs be strengthened.

## LESSONS LEARNED

- Stakeholders value research that informs practice and policy, that addresses the client's full life span, and that can answer questions at field and policy levels, not just at academic levels.
- Current organizational policies and practices do not adequately support staff becoming involved in research. Developing effective KT partnerships requires revising organizational mission statements, policies and job descriptions to reflect research as a priority.
- The relationships established during the workshops are invaluable. We encourage other researchers to reach out to stakeholders.



## SESSION EVALUATIONS

Participants rated aspects of the sessions on a 5-point scale from 1 (Poor) to 5 (Excellent). The overall mean rating of the three workshops was 4.2, equivalent to a rating of Very Good. Two evaluation items were particularly relevant to our goal of strengthening partnerships and commitment for KT. Item 8, "This workshop has presented me with the opportunity to network with others about knowledge translation for developmental disabilities in Manitoba" received a mean rating of 4.36, ranking it the third-highest rated of nine items. Item 6, "I would like to play an active role in future knowledge translation initiatives in Manitoba" received a mean rating of 4.34, the fourth-highest rating.

In their free-form written comments, participants said that they appreciated the chance to learn from each other and hear the various stakeholder perspectives. One participant wrote, "I think any opportunity to connect with people who work/research in the field is invaluable." Another participant wrote, "I work within [these concepts] now, so I did not learn any new theory – I learned from the experts in the field and from other stakeholders (parents)."

Other comments demonstrated a growing commitment for coordinated KT efforts. One participant wrote, "Excellent forum to share ideas. I look forward to participating in other workshops that move us forward in a meaningful way." Another offered: "Great first workshop on KT – good opportunity for brainstorming – looking forward to the 'next steps,' i.e. action!"

## CONCLUSION AND LESSONS LEARNED

We were advised to hold future meetings that:

- Build cumulatively on the output of previous meetings;
- Are organized around the CIHR KT model; and

- Address different types of research activity, including program evaluation, basic science or library research.

It was also suggested that we produce a concrete KT mechanism, such as a telephone information service or website, which would be accessible to parents.

As a result, we have collaborated with St. Amant School (a program that provides individualized educational

opportunities for children and adults with intellectual and developmental disabilities) to propose a comprehensive information service for teachers and parents. A CIHR Knowledge to Action operating grant has provided financial support, and we hope to go online with a dedicated website in the near future.

The workshops successfully achieved their purpose of teaching us about the relevant priorities and contexts for knowledge translation in developmental disabilities. We learned that the facilitating and impeding factors are consistent with those from other fields, such as health services research, nursing,<sup>3</sup> education<sup>4</sup> and mental health care.<sup>5</sup> Participants highly valued research

that informs practice and policy, that addresses the client's full life span, and that can answer questions at field and policy levels, not just at academic levels. A longer report on these workshops is on our website.<sup>2</sup>

Participants indicated that current policies and practices of their organizations often do not adequately support staff or administrators becoming involved in research. A lack of time, incentives and resources for locating and applying research findings are often impediments to KT. Developing effective KT partnerships, therefore, requires revising organizational mission statements, policies and job descriptions to reflect research as a priority.



Asking participants to identify their stakeholder perspectives helped us to find out more about factors that facilitate or impede KT for the different groups. The participants also valued the diversity of viewpoints, and we were encouraged to engage an even larger number of parents from the community (especially those who are not connected with a group or association) as well as medicine, genetics and child health specialists. These suggestions are consistent with the fact that a developmental disability places special demands on the affected individual's family and on nearly all of the health care services that he or she may access.

The positive affect of the workshops on partnerships and commitment for KT in developmental disabilities in Manitoba

was evident both in the session evaluations and during the group discussions. We were told that researchers and decision-makers should collaborate to develop appropriate research questions and to conduct the research, as suggested by the CIHR KT model. Accessible and understandable knowledge dissemination channels should then be used to share project findings with stakeholders.

The relationships established during the workshops have been invaluable to our team during subsequent KT research activities, and we have begun partnering directly with the organizations and service providers who participated in the workshops. We encourage other researchers to take the initiative in reaching out to stakeholders to begin the dialogue.

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## ACKNOWLEDGEMENTS

Toby L. Martin, PhD (Manager, St. Amant Research Centre) assisted in organizing all three workshops analyzed the results and led the drafting of this report.

Shahin Shoostari, PhD (Assistant Professor, Department of Family Social Sciences, Department of Community Health Sciences, University of Manitoba; Researcher, St. Amant Research Centre; Research Affiliate, Centre on Aging, University of Manitoba) assisted in organizing all three workshops, presented to participants on the CIHR KT model and was the nominated Principal Applicant on the supporting grant.

Beverly Temple, RN, PhD (Assistant Professor, Faculty of Nursing, University of Manitoba; Researcher, St. Amant Research Centre) assisted in organizing all three workshops and assisted Jennifer Schulz in facilitating the workshop discussions.

C. T. Yu, PhD (Associate Professor, Department of Psychology, University of Manitoba; Director, St. Amant Research Centre) assisted in organizing all three workshops, and assisted Jennifer Schulz in facilitating the workshop discussions.

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For additional information, contact Toby L. Martin (tmartin@stamant.mb.ca, 204-256-4301 ext. 5481)

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# 7.

## Using integrated

### KT to Evaluate a Complex Early Childhood Intervention Program

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Fleur Macqueen Smith , Darren Nickel (SPHERU, University of Saskatchewan),  
Gail Russell (Saskatchewan Ministry of Education) and the *KidsFirst* Evaluation research team  
and collaborators



Children at a *KidsFirst* event



## ABSTRACT

In mid-2010, a team of researchers and decision-makers led by Nazeem Muhajarine wrapped up a three-year evaluation of KidsFirst, the Saskatchewan government's targeted early intervention program for very vulnerable young children and their families.

Three KT strategies were important in establishing and maintaining this community-university partnership for the KidsFirst evaluation: 1) Regular interactions between the research team and its staff and the program managers and staff of the government unit responsible for KidsFirst; 2) Joint funding of the project through a national funding agency and the government of Saskatchewan; and 3) joint authorship on the reports produced as part of the evaluation.

### STRATEGIES: INTEGRATED KT

In mid-2010, a team of researchers and decision-makers led by Nazeem Muhajarine wrapped up a three-year evaluation of KidsFirst, the Saskatchewan government's targeted early intervention program for very vulnerable young children and their families.

While KidsFirst is a provincial program, it is delivered locally at nine sites across the province. Each site is managed by a program manager, who supervises a team that includes a home visiting supervisor, home visiting staff, and mental health and addictions counsellors. KidsFirst works at the family level, using home visiting to mentor very vulnerable families with young children (0-5) and to connect them with needed supports, aiming to reduce disparities in maternal and child health outcomes.<sup>1</sup>

The program evaluation is an example of integrated KT as defined by the Canadian Institutes of Health Research.<sup>2</sup> Researchers and knowledge-users (policy and decision-makers) worked together to shape the evaluation process, and they collaborated on developing research questions, methodology, data collection, interpretation and dissemination. Using integrated KT produces research findings that are relevant to, and used by, the knowledge-users as they have had input throughout the process.

In reflecting on this partnership, three KT strategies have been important in establishing and maintaining it:

- 1) Regular interactions between the research team and its staff and the program managers and staff of the government unit responsible for KidsFirst;
- 2) Joint funding of the project by a national funding agency given to the researchers via a peer-reviewed process and by the Government of Saskatchewan through the decision-makers; and

- 3) Joint authorship on the reports produced as part of the evaluation.

Although collaborative research takes more time than investigator-driven research, it can be more fulfilling as decision-makers can take ownership of the process, making it much more likely that research findings will be put into policy and practice.

### METHODS:

#### 1) Regular interaction between researchers and decision-makers

##### Research Team

Integrated KT was facilitated through frequent interaction, communication and regular meetings between researchers and decision-makers. The research team was comprised of both researchers and decision-makers. The researchers were academics, primarily from the Saskatchewan Population Health and Evaluation Research Unit, with a few from the Department of Community Health and Epidemiology at the University of Saskatchewan. The decision-makers were government staff members from the Early Childhood Development Unit, Ministry of Education, which has direct responsibility for KidsFirst, and the Director of Evaluation in the Ministry of Social Services.

This team met in person and by teleconference several times a year to guide the research, with meetings of smaller groups of team members more often, as needed. Accordingly, through these meetings and regular communication trust was developed between the community and university partners. Various team members were involved in the ongoing integrated KT activities including: research staff, program managers and an advisory committee.



## Research Staff

Under the oversight of the principal investigator and the guidance of the research team, day-to-day activities were carried out by research staff. A key player was the program evaluator (Nickel), who joined the staff in September 2007, and worked almost full time on the evaluation for three years. At different points in the evaluation, particularly during the qualitative component, other staff members were hired. A complete list of staff is included in the acknowledgements. The Early Childhood Development Unit also assigned a half-time position as part of their in-kind contribution to the project.

## Program Managers

Various members of the research team and staff met four to six times a year with the Program Managers' Committee, an existing committee comprised of all nine local program managers (listed as collaborators on the proposal) and all of the staff from the government's Early Childhood Development Unit.

In between these meetings, KidsFirst program managers and staff provided advice and feedback by email and phone throughout the evaluation, starting with developing the Program Logic Model and Evaluation Framework. Program managers, researchers and research staff co-wrote profiles of each KidsFirst community. In the qualitative portion of the evaluation, program managers helped establish areas to explore and created the semi-structured interview guide used in interviews and focus groups. They also identified research participants and organized locations and food for interviews and focus groups, and helped interpret findings from these interviews.

The involvement and cooperation of the program managers was critical as they deliver the program "on the ground" and can reveal the tacit knowledge of its operation that is essential but undocumented. Ongoing interaction between researchers and decision-makers over the three years of the evaluation provided both time and space for people to develop trusting relationships, a key ingredient for successful collaborative work. This was especially evident in the qualitative phase, as program managers recruited program clients to participate in interviews and focus groups. The managers might have been reluctant to do this if they did not trust how the research staff would interact with their clients and treat the knowledge that program clients, who are often vulnerable, shared with them.

## Advisory Committee

At the outset of the evaluation, the government established an inter-ministerial evaluation advisory committee made up of senior officials from the four ministries involved in KidsFirst. The Committee met twice with team members to discuss the evaluation.

### 2) Joint funding from researchers and decision-makers

Joint funding is an effective KT method for promoting an effective partnership. Joint funding enables both partners to make a formal contribution to the work which creates a shared vested interest in the research. As such, joint funding not only helps to facilitate a collaborative research interest but also helps partners to appreciate the value and expertise in each other's work. Accordingly, it is important to note that effective, collaborative research requires researchers to check their egos at the door and to recognize that both researchers and decision-makers bring valuable knowledge and insights to the research process.

This evaluation was initiated when the principal government decision-maker (Russell) approached a key academic researcher specializing in child/maternal health and evaluation research (Muhajarine) about conducting a program evaluation. At that time, the government planned to provide some funding. Soon after this discussion, Muhajarine was invited by the Canadian Population Health Initiative (CPHI) to respond to their call for proposals for intervention

research as he had previously completed an investigator-driven project funded by CPHI that included a significant knowledge translation component.

In this way, the PI and his team were able to provide \$300,000 from a national funding agency as well as academic expertise to guide the evaluation. As faculty members are not remunerated with grant funds as they conduct research as part of their academic responsibilities, this monetary contribution substantially reduced the cost of the evaluation.

In turn, the Ministry of Education funded development of the Evaluation Framework while the proposal to CPHI was under consideration. Later, the Ministry and the nine KidsFirst sites provided funds for conducting the qualitative portion of the evaluation, which was not funded by CPHI as this funding would not stretch to fund both quantitative and qualitative evaluations.



One of the KidsFirst fact sheets

Joint funding facilitated integrated KT as it meant that both the researchers and decision-makers were invested in the outcome of the evaluation as they had resources riding on it. Pooling resources also meant that there were more funds available to evaluate this complex, multi-faceted program.

### 3) Joint authorship

Joint authorship was an effective method of KT as the development of the publications provided a forum for shared discussion and the development of collaborative documents for dissemination. Accordingly, the practice of joint authorship represents a clear co-ownership of collaborative research. This is a more fulfilling way of doing policy-engaged research as decision-makers take ownership of the process and the product, which in turn makes it much more likely that research findings are put into policy and practice.

As part of the evaluation, a number of documents have been written:

- An Evaluation Framework that includes an overview of the KidsFirst program, a program logic model, evaluation principles, objectives, data sources and collection methods, and a review of six assessment tools;
- Community Profiles that describe the physical and social conditions in each community, their services, amenities, supports and challenges, and how the program is administered in the community;
- A Home Visiting Literature Review of academic evaluations of home visiting programs, indicating how these findings relate to KidsFirst;
- An academic Theory Paper and two shorter, plain language summaries, using theory to help explain and better understand the ways in which KidsFirst activities promote positive changes in child and family health and development;
- Semi-structured Interview Guides for qualitative focus groups and individual interviews;
- Several Evaluation Reports: a quantitative one, a qualitative one, and a summary that integrates key findings from both methodologies; and

- Short Fact Sheets and a Video to describe the evaluation and disseminate key findings.

For each of these documents, the lead writers were credited with authorship, followed by others who had made significant contributions. In each document, members of the research team, research staff and decision-makers in the Ministry of Education and KidsFirst sites who were not named authors were credited in the acknowledgements. Through this inclusive model of authorship, we were able to properly credit the work of the many people who had contributed to these publications. The reports and fact sheets can all be read online or downloaded at [www.kidSKAN.ca/KidsFirst](http://www.kidSKAN.ca/KidsFirst); the video is posted on YouTube (search "KidsFirst evaluation") and embedded on the kidSKAN website.

We have disseminated these reports and fact sheets widely, online, in print and on CD. We also published a KT Case on this population health intervention research in the Population Health Intervention Research Casebook produced by the Canadian Institutes of Health Research and the Canadian Population Health Initiative,<sup>3</sup> presented at several webinars hosted by the Canadian Population Health Initiative, and have made presentations of findings at recent Canadian Evaluation Society and Canadian Public Health Association conferences.

### CONCLUSION AND LESSONS LEARNED

We believe that other researchers will be able to implement these suggestions in developing their own partnerships. It is particularly important to be mindful of opportunities to co-construct research knowledge. This includes opportunities to leverage one source of funding with other funds (such as the CPHI funds providing impetus for government funding), opportunities for researchers and decision-makers to interact throughout the life of a project, and opportunities to publicly acknowledge the roles of all members in the partnership. Such mindfulness can lead to collaborative research that makes an impact.

#### LESSONS LEARNED

- Collaborative research takes more time than investigator-driven research.
- Collaborative research requires researchers to check their egos at the door.
- Collaborative research can be more fulfilling way of doing research as findings are more likely to be put into policy or practice.







### Key lessons learned

**Collaborative research takes more time than investigator-driven research.** It requires time to develop relationships and build trust as well as time for researchers and decision-makers to understand each other's environments.

**Collaborative research requires researchers to check their egos at the door** and to recognize that both researchers and decision-makers bring valuable knowledge and insights to the research process.

**Collaborative research increases the likelihood of informing policy change** as decision-makers can take ownership of the process, which makes it much more likely that research findings are put into policy and practice, the ultimate end goal of doing research that "makes a difference."

### ACKNOWLEDGEMENTS

Nazeem Muhajarine, PhD (Professor and Chair, Department of Community and Population Health Science, University of Saskatchewan and Lead, Healthy Children Research Team, Saskatchewan Population Health and Evaluation Research Unit) was the principal investigator on the Saskatchewan KidsFirst program evaluation.

Fleur Macqueen Smith, MA (Knowledge Transfer Manager, Healthy Children Research Team, SPHERU) co-wrote the funding application to the Canadian Institutes of Health Research, assisted with knowledge transfer throughout the evaluation, and conceived of and wrote this case.

Darren Nickel, PhD (*KidsFirst* Evaluator, SPHERU) provided day-to-day management of the research project.

Gail Russell, MA (Director, Early Childhood Development Unit, Saskatchewan Ministry of Education) provides leadership for the KidsFirst program and was the principal decision-maker for this evaluation research.

We acknowledge the Canadian Population Health Initiative – Canadian Institute for Health Information, the Government of Saskatchewan,

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The many reports in this evaluation were developed with the guidance, support and contributions of the many members of the KidsFirst Evaluation Research Team. This includes KidsFirst investigators: Angela Bowen, Jody Glacken, Kathryn Green, Bonnie Jeffery, Thomas McIntosh, David Rosenbluth, and Nazmi Sari; post-doctoral fellow Hongxia Shan; and research staff: Darren Nickel, Fleur Macqueen Smith, Robert Nesdole, Kristjana Loptson, Shainur Premji, Hayley Turnbull, Taban Leggett, Kathleen McMullin and Julia Hardy. We were also assisted by a number of students over the years, including Jillian Lunn, Karen Smith, Vince Terstappen, Curtis Mang, David Climenha, and Braydon Sauve. Penny McKinlay edited several of the reports.

For more information, contact Fleur Macqueen Smith (fleur.macqueensmith@usask.ca, 306-966-2957).

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### FURTHER RESOURCES

1. All reports, fact sheets and the video produced as part of this evaluation can be viewed online or downloaded at [www.kidskan.ca](http://www.kidskan.ca) (select "KidsFirst" from the Projects menu on the home page or navigate to [kidskan.ca/kidsfirst](http://www.kidskan.ca/kidsfirst)). The video is posted on YouTube (search "KidsFirst Evaluation").

# 8.

# Improving Childhood Immunization Rates and Practices

Zahid Abbas, Tania Diener, Morag Granger (Population and Public Health Services, Regina Qu'Appelle Health Region)

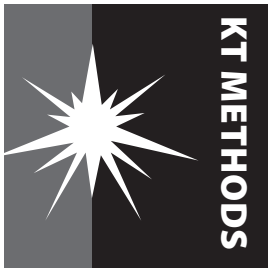


The ImmuTrax website

## ABSTRACT

In Saskatchewan, routine immunization is conducted by public health services of each health region. The immunization rate in the Regina Qu'Appelle Health Region is significantly lower than the national target. As a result, raising vaccine coverage levels is one of the highest priorities for the Region's Population and Public Health Services, and this unit set a goal to increase the current immunization rate for two year olds from 68% in 2008 to 74% by December 31, 2012.

To achieve this goal, the unit established an immunization strategy committee to review existing immunization coverage rates and to recommend interventions to improve the timely immunization of children under two years of age. They implemented a telephone reminder and recall system for front line staff to call parents, and an online reminder system for parents to use. The Health Region's work to date has demonstrated the importance of employing knowledge transfer strategies that integrate the involvement and commitment of front-line staff, management and parents.



- *Conducted a literature review to establish a baseline of best practices in improving immunization coverage.*
- *Set up recall and reminder system, so Public Health staff could make immunization reminder calls and set up immunization appointments.*
- *Provided online information so parents can see what immunizations are due next, based on their children's ages.*
- *Developed a feedback mechanism so that the system can constantly evolve.*

## INTRODUCTION

One of the major benchmarks of a community's health is the childhood immunization rate. The childhood immunization rates in the Regina Qu'Appelle Health Region, at 71.4 per cent for the 2008 birth cohort (children aged two in 2010), is significantly lower than the national targets established at the National Consensus Conference for Vaccine-Preventable Diseases in Canada.<sup>1</sup> If immunization coverage rates are not addressed, the Health Region will continue to see cases of vaccine-preventable childhood illness and a related increase in health costs. As a result, raising vaccine coverage levels is one of the highest priorities for the Region's Population and Public Health Services.

In September 2009, Population and Public Health Services set a goal of increasing the current immunization rate for two year olds from 68% in 2008 to 74% by December 31, 2012. To meet this goal, the unit developed a comprehensive immunization strategy to identify the barriers and find ways to improve the rate of childhood immunization.

## METHODS AND STRATEGIES

To address the concerns for increasing vaccine coverage levels, an immunization strategy committee was set up to analyze and interpret existing immunization coverage rates, and to recommend and design interventions to improve the timely immunization of children less than two years of age. This committee is chaired by the department's Medical Health Officer.

### **Literature Review**

One of the committee's first steps was to conduct a literature review (an internal document) to identify the strategies that have traditionally been employed to eliminate barriers to immunization, and determine how effective these strategies have been.

Barriers to immunization are usually grouped into three categories: systems barriers (e.g. those involving the organization of the health care system), health care provider barriers (e.g. inadequate clinician knowledge about vaccines

and contraindications), and parent/patient barriers (e.g. fear of immunization-related adverse events).

In addition, analysis of immunization coverage by geographic area shows that up-to-date coverage varies by neighbourhood socioeconomic status. Children who live in low socioeconomic neighbourhoods of the city are at a greater risk for incomplete immunization compared to children in the general population. The data showed that low-income neighbourhoods have immunization rates as low as 35%, compared to the regional average of 68%.

### ***Implementing a Telephone Reminder and Recall System***

A reminder and recall system was mentioned over and over again in the literature, so the committee decided to make establishing such a system a central ingredient in their immunization strategy.

The Saskatchewan Ministry of Health already has a confidential, computerized information system that collects consolidated immunization information for Saskatchewan residents, known as the Saskatchewan Immunization Management System, or SIMS for short. This system enables health regions to electronically track the immunizations a person has received. It also has the capacity to consolidate children's vaccination records, and to identify children who are due or late for age-appropriate vaccinations. Further, it can identify geographic areas and neighbourhoods with low vaccination coverage.

The committee's goal was to make this knowledge available to front-line staff and parents/caregivers, in order to bridge the gap between those who produce research-based knowledge and those who are in a position to use it.

A system was set up to inform the public health nurses on a monthly basis, of their clients' needs for additional immunizations. Public Health support staff then phone the children's guardians to remind them that a vaccination is due, and offer them the opportunity to schedule an appointment (see Figure 1).

Telephone contact is easy to implement and requires minimal staff time. It is particularly useful in the rural areas, where the population tends to be less mobile, so people's phone numbers do not change as frequently as is the case in some urban neighbourhoods. Phone contact is also more personal and allows for an immediate response by setting up an appointment. This tends to save time and effort for both parties.

The reminder and recall system has given staff the ability to track important information, process measures, including incorrect addresses and/or telephone numbers, the percentage

of children who actually received immunizations, and the percentage of children who are actually up to date but incorrectly recalled. This will help change the immunization delivery practices and assist in future efforts to increase immunization coverage rates.

### ***Developing a Web-based Reminder System***

Recognizing the widespread use of the internet, Population and Public Health Services decided to implement an interactive, web-based system to supplement the telephone reminder and recall process. ImmuTrax<sup>2</sup> is designed to educate parents about the need and safety of immunization and to encourage them to keep their children's immunizations up to date. It is based on existing immunization trackers elsewhere,<sup>3,4</sup> customized for the Regina Qu'Appelle Health Region.

ImmuTrax provides a printable chart of all immunizations due for children from two months up to the end of grade eight. Parents can track what immunizations are due next on the Saskatchewan Immunization Schedule by entering their child's date of birth on the ImmuTrax home page at [https://www.rqhealth.ca/programs/comm\\_hlth\\_services/pubhealth/immutrax.php](https://www.rqhealth.ca/programs/comm_hlth_services/pubhealth/immutrax.php). They can also sign up for email reminders that are sent out two weeks before the next immunizations are due. Immutrax also displays links to additional programs offered by the health region that are appropriate for the age of the child.

Educational and marketing programs about the new, interactive immunization page and its features were designed and implemented for both staff and the general public to promote its use. As of May 2011, 487 people with unique email addresses had registered for email notices for 666 children, and the ImmuTrax webpage has had 2443 page views.

### ***Additional Knowledge Transfer Activities***

Population and Public Health Services is engaged in a number of additional, traditional strategies to improve immunization coverage rates. These include:

- Marketing campaigns to educate the public and parents on the necessity of immunizations: handouts, participation in health fairs, information packages for new mothers at the first home visit following discharge from hospital, information in community newsletters, immunization cards and schedules;
- Educational campaigns for public health clinicians about the immunization schedule and how to manage children who are off schedule; and
- Repeatedly measuring immunization rates over time and other traditional initiatives.

A project charter for the immunization strategy has been developed to maintain the focus on this important public health intervention. It includes plans to specifically address the low immunization rates that have been identified in some neighbourhoods by:

- Providing incentives such as transportation and food coupons if parents have children immunized according to the recommended schedule;
- Organizing a neighbourhood immunization blitz to help increase access to immunization services; and
- Working with child care providers and public health nurses to assess the immunization status of preschool children attending child care centres in these neighbourhoods and providing immunizations at the centre with the parent present.
- Physicians will be encouraged to check for immunization status at every well-child visit, and epidemiologists will continue to analyze and respond to the available data.

## CONCLUSION AND LESSONS LEARNED

The department measures the percentage of children who have received all recommended vaccinations by a particular age. As a result, the effect of current interventions to improve the immunization coverage rates will not be fully observed until the end of 2010. There have, however, already been signs of improvement.

The baseline for immunization rates for the 2006 birth cohort was 68.4% for 4 doses of diphtheria and tetanus toxoids and acellular pertussis (DTaP) vaccine and 67.7% for 2 doses of measles-mumps-rubella (MMR) vaccine. Since implementing some of these strategies, the immunization rates for the 2007

birth cohort is 71.2% for 4 doses of diphtheria and tetanus toxoids and acellular pertussis (DTaP) vaccine and 71.5% for 2 doses of measles-mumps-rubella (MMR) vaccine, showing an increase of 4% in DTaP coverage rate and 5% for MMR.

We believe that further use and efficiency in implementing these knowledge transfer strategies will lead to additional increases in the rate of childhood immunization.

The reminder and recall system has proven to be an effective method of integrating the Region's immunization information and of sharing it with front-line staff. In addition, it has supplemented the provincial database by updating contact information, refusals and contraindications.

The analysis of the data by geographic location has provided valuable information about regional disparities and has provided the health region with an opportunity to implement strategies targeting specific neighbourhoods.

Increasing immunization coverage levels requires a sustained approach and commitment from both parents and health care providers. Support from both front-line staff and management is essential. It is important to employ knowledge transfer strategies that integrate the involvement and commitment of public health staff, other primary care health care workers, as well as parents/caregivers.

Employing a wide variety of different strategies and approaches has been helpful in addressing the needs and expectations of the diverse target groups. For example, telephone calls have been particularly effective in rural areas where the population is less mobile, while Immunetrax is designed to meet the needs of parents who are comfortable using the internet.

### LESSONS LEARNED

- Increasing immunization coverage requires a sustained approach and commitment from both parents and health care providers, and support and engagement from both management and front-line staff is essential.
- The reminder/recall process is a useful way of sharing data with front-line staff.
- Analysis of health data by geographic location provides valuable information about regional disparities.



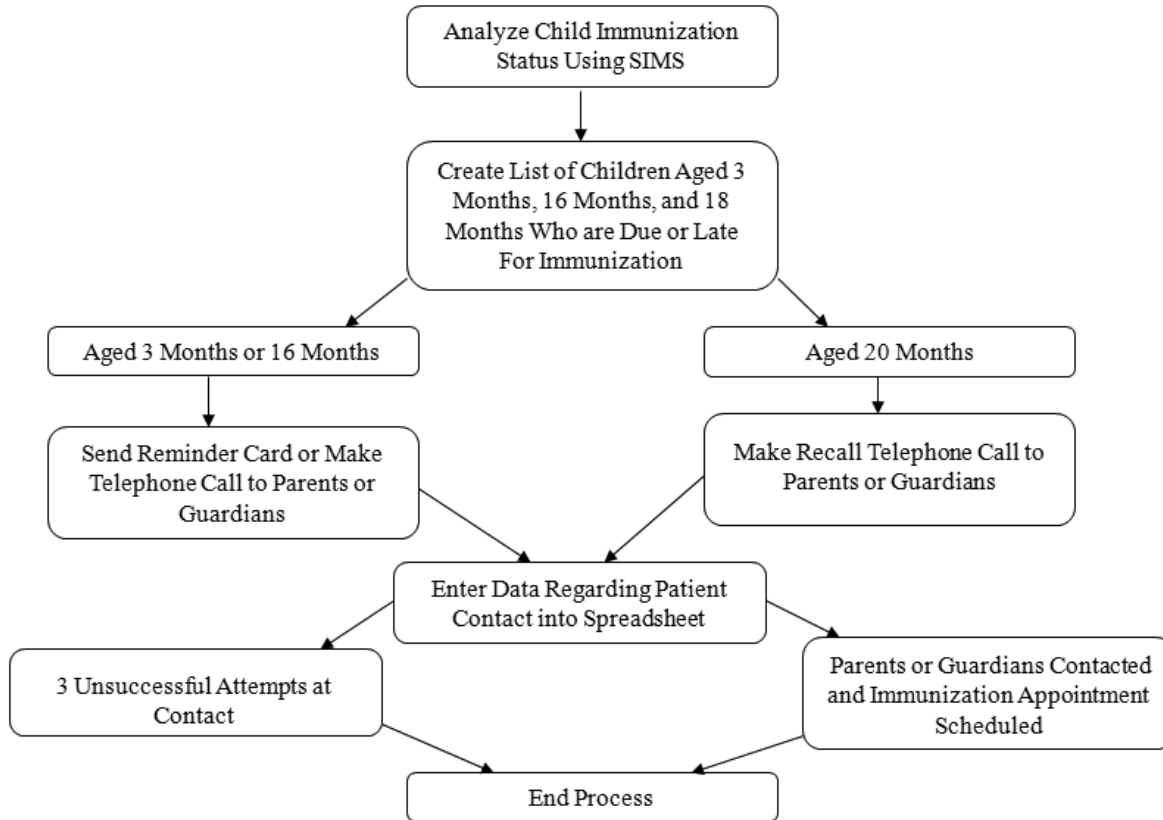


Figure 1 : Reminder/Recall Process

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For additional information, contact Dr. Abbas (zahib.abbas@rqhealth.ca, 306-766-7771).

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# 9.

# Integrating

# Technology into Hospital Nursing Care

Sandra Bassendowski, Pammla Petrucka (College of Nursing, University of Saskatchewan),  
Lorna Breitreuz (All Nations' Healing Hospital)



All Nations Healing Hospital

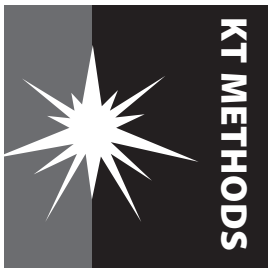


## ABSTRACT

In 2009, All Nations' Healing Hospital in Fort Qu'Appelle, Saskatchewan, identified an opportunity to introduce a palette of electronic nursing resources through the use of personal digital assistants (PDAs), wireless infrastructure and laptop computers in order to enhance timely, at-the bedside access to current policies and procedures and resources.

Individuals from All Nations' Healing Hospital, MITACS Accelerate and the College of Nursing, University of Saskatchewan, formed a partnership. The partners were particularly interested exploring the impact of the technology innovations on nurses in a rural, primarily Aboriginal context.

The work environment shifted from a reliance on paper-based, institutional documents to an online format. Nursing staff used their PDAs to ensure that the information they were using for patient care was relevant, up-to-date and applicable. All the partners benefited from working together, and there is a commitment from the Hospital and the University of Saskatchewan's College of Nursing to maintain the relationship.



- *A partnership was formed between a university, a hospital and a funder for nurses to integrate PDAs and wireless technology at the bedside.*
- *A Master of Nursing student served as a primary contact to facilitate usage of the new technologies.*
- *Nursing staff were involved in the project throughout, and frequently shared their perceptions and reactions to the technology integration.*
- *Nurses completed a Quality of Worklife Survey, which provided additional information on the hospital's working environment as it integrated these technologies.*

## INTRODUCTION

All Nations' Healing Hospital<sup>1</sup> in Fort Qu'Appelle, Saskatchewan, is owned by the File Hills Qu'Appelle and Touchwood Agency Tribal Councils and operated by the File Hills Qu'Appelle Tribal Council. In 2009, the management identified an opportunity to introduce a palette of electronic nursing resources through the use of personal digital assistants (PDAs), wireless infrastructure and laptop computers in order to enhance timely, at-the bedside access to current policies and procedures and best practices resources.

A proposal for funding to support a graduate student was submitted to MITACS Accelerate. MITACS Accelerate is a national internship program that connects companies and other organizations with the research expertise in Canada's universities.<sup>2</sup> The College of Nursing, University of Saskatchewan, agreed to design and implement the project with the assistance of the graduate nursing student.

Individuals from All Nations' Healing Hospital, MITACS Accelerate and the College of Nursing, University of Saskatchewan, formed a partnership to examine the use of knowledge transfer techniques to introduce and sustain the use of mobile health technologies by nurses in a rural, primarily Aboriginal context, which is often challenged by lack of information access and support for evidence-informed practices and transformative practices. Particular attention was paid to how the technological innovations affected the nurses' quality of work life and patient care. The partners believed that sharing findings from their project could benefit other health communities who serve under-represented and under-resourced populations.

The project was catalyzed, in part, from the experiences and findings of a research initiative in the Caribbean using similar infrastructure. It was anticipated that electronic nursing resources would assist the nursing staff involved to respond more effectively to the health and wellness needs of a unique population. In addition, the project recognized that

mobile health was an emerging aspect of quality, responsive patient care globally. The hospital was also working on recommendations brought forward from Accreditation Canada related to technologies and patient safety, specifically to move from paper-based to online resources within the nursing department.

## METHODS AND STRATEGIES

The project involved two separate knowledge transfer initiatives. The first initiative involved the three partner organizations and their internal activities in planning, designing, and implementing the project. The partners decided to meet on a regular basis to initiate, maintain and focus the project direction and activities. They took the lead in ensuring the reports, research findings and activities were taken forward to the decision-making bodies in order to facilitate dialogue and consensus-building on the relevance of the technological innovation for health outcomes and quality of worklife. They also championed the technology implementation by meeting with the nursing staff and participating in both initiation and wind-up celebrations.

The second initiative encompassed the knowledge transfer activities undertaken with the nursing staff to launch and sustain the use of mobile health technologies. An important first step was a meeting arranged by the hospital's Director of Care with all the staff to introduce the proposed move towards a more technologically-enabled work environment. This meeting was critical for engagement and scope clarification for the project. The partnership team explained that the mobile health technology was intended to support the information needs of the nursing staff and to promote safe, quality patient care.

The team highlighted the critical role of nurses, the largest single health-provider group, in influencing the quality of health services and patient outcomes. Significant emphasis was also given to the fact that nurses are increasingly encountering complex and diverse client groups, which necessitates timely, accurate and appropriate information and innovative communication technologies to facilitate provision of optimal patient care.

The project team used a number of knowledge transfer strategies to sustain the technology initiative. The nurses were approached early in the process about the software that could

be made available on the personal digital assistants (PDA) and were encouraged to choose the content that would best meet their needs.

A Master's of Nursing student played a key role in the knowledge transfer process by conducting one-to-one teaching sessions with staff members at All Nations' Healing Hospital. The sessions included an orientation to the PDA,

an introduction to the software and an introduction to the use of online sites such as NurseONE ([www.nurseone.ca](http://www.nurseone.ca)).<sup>3</sup> Posters and friendly reminder cards were placed in strategic locations, such as the nurses' meeting areas and the medication room, to continually reinforce the use of PDAs at variable intervals in the care cycle.

Staff served as internal champions by sharing their knowledge and skills in using the technology openly and freely during work time and orientation sessions. The nurses assisted each other in identifying innovative ways to use the technology to ensure that patient safety was enhanced by obtaining information at point of care. These experiences were seen as evidence of the integration of knowledge transfer activities by, for and with the end users, who ultimately took



One of the nurses with her PDA

ownership of the processes.

Additional contributions by the nursing staff provided further evidence of their involvement in the project. These included: feedback (key informant interviews), advocacy (for expanded software) and participation in lead roles in poster and conference presentations at the local, provincial and national levels.

### **Impact of the KT Activities**

The four months of knowledge transfer activities led to a change in nursing policy and practice. The working environment changed from a reliance on paper-based, institutional documents, such as practice policies and procedures, to an online format. Nursing staff used their PDAs to ensure that the information they were using for patient care (medications, tests, nursing practice) was relevant, up-to-date and applicable. The PDAs facilitated data collection at the point of care and provided resources, such as medication formularies, clinical pathways programs and administrative instruments, that enhanced continuity of care, increased evidence of nursing's contribution to treatment and increased evidence-based research being generated by nursing.

The partners also used the Quality of Worklife Survey, with permission from the Saskatchewan Registered Nurses' Association, to assess the quality of work life, which provided useful additional information.

The research tools that were used throughout the project helped to identify the added value of the technology to nursing practice. Changes in nursing and health care practices were identified through the research findings, the formal and informal feedback from the staff about how technology was making a difference in their practice, as well as the visual evidence provided by seeing staff with PDAs in their hands and using them at the bedside to meet their informational needs and enhance patient safety.

As a result of this project, nursing staff and administrators have started discussing the policy and practice decisions that are needed in order to use technology to further enhance quality of work life and the provision of health care services.

## CONCLUSION AND LESSONS LEARNED

Examination of the project's impact demonstrated that the implementation of mobile health technology at First Nations' Healing Hospital benefited from the knowledge transfer activities. Nursing staff were kept informed and asked to contribute their perceptions and reactions throughout the

project. Internal and external champions increased the project's visibility and viability, and end-user-to-end-user knowledge transfer was particularly effective. The one-on-one teaching sessions with a resource person played a critical role in the project's success. The process also indicated the importance of celebrating success by bringing the partners and members of the community together for a special occasion.

All the partners benefited from working together, and there is a commitment from All Nations' Healing Hospital and College of Nursing, University of Saskatchewan, to maintain an ongoing relationship.

MITACS Accelerate was a contributing funder for the project, and members of this project will look for other opportunities to involve MITACS in similar projects. Their experience indicates that in order to have an effective partnership, the research and practice processes have to be inclusive, transparent, active and community-specific. Flexibility and responsiveness are essential to allow an innovative project to evolve and succeed during the timeline.

The partners gained a better understanding of the role of technology in knowledge translation, unique ways of knowing, shared decision-making and enhanced utilization of research results.

## LESSONS LEARNED

- Knowledge transfer was particularly effective when it was between users of the new technologies.
- Capitalize on your KT efforts by using internal and external champions—visibility contributes to viability.
- Sustain KT throughout and beyond the project life cycle through an inclusive and transparent approach.



## ACKNOWLEDGEMENTS

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Sandra Bassendowski, EdD, RN (Professor, College of Nursing, University of Saskatchewan) was the co-principal investigator for this project.

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1. All Nations' Healing Hospital, Fort Qu'Appelle, Saskatchewan is owned and operated by the File Hills Qu'Appelle Tribal Council and Touchwood Agency Tribal Council and is funded through an

operating agreement with the Regina Qu'Appelle Health Region. It provides services to 11 First Nations communities around Fort Qu'Appelle. Additional information is available from: <http://www.fortquappelle.com/anh.html>

2. MITACS Accelerate links businesses, government and not-for-profits with over 50 Canadian universities to develop cutting-edge tools to support the growth of Canada's knowledge-based economy. Additional information is available from: [http://www.mitacs.ca/index.php?option=com\\_content&view=article&id=243&Itemid=6&lang=en](http://www.mitacs.ca/index.php?option=com_content&view=article&id=243&Itemid=6&lang=en)

3. NurseONE is a national, bilingual web-based health information service designed for the Canadian nursing community. It was developed through a partnership between the Canadian Nurses' Association (CNA), Health Canada, and the First Nations and Inuit Health Branch (FNIHB) of Health Canada. Additional information is available from: <http://www.nurseone.ca>.

# 10.

# Screening

## for Intimate Partner Violence in a First Nations Community

T. Diane Campbell (College of Nursing, University of Saskatchewan),  
Heather Beatch (Battlefords Tribal Council),  
John Mitchell (First Nations and Inuit Health Program, Health Canada)





## ABSTRACT

Nurses working for a Saskatchewan First Nations health program identified abuse against women as a significant health issue in their prenatal population. However, the nurses did not have a substantive knowledge base or screening tool that could evaluate this health issue and help guide referral decisions. An informal tribal council/government/university partnership was formed to address the issue.

The partnership designed and delivered a one-day workshop in order to promote awareness and understanding of issues associated with woman abuse and to formulate a culturally-appropriate screening tool. The workshop led to effective KT in action as it contributed to the development of the First Nations Woman Abuse Screening Tool document. The document was designed as an alternative, local assessment tool that satisfied best practice in the local First Nations context. The First Nations Woman Abuse Screening Tool document was edited by the partnership, approved by local nursing staff and supervisor, and is now used with all women in the health program's prenatal program.



- *Held collaborative workshop with key stakeholders to revise existing screening tool for woman abuse in response to community requests.*
- *Revised tool being used in the First Nations health organization.*
- *An evaluation of the tool's impact is being discussed.*

## BACKGROUND

In 2008, community health nurses working for a Saskatchewan First Nations health program identified abuse against prenatal women as a significant health issue. Prenatal class discussions often evolved into discussions of the effects of abuse on participants' present life situations. Some nurses expressed concern to their supervisors as they did not know how to assess the issue or adequately respond to the problem.

The First Nations health organization and community health nursing staff recognized the need to address woman abuse. The nursing manager requested assistance from nursing colleagues at the University of Saskatchewan and Health Canada. An informal partnership was formed with the nursing supervisor, who was responsible for maternal/child programs in the First Nations community, a clinical nurse specialist in mental health from Health Canada's First Nations and Inuit Health, who has expertise in intimate partner violence, and an assistant professor with expertise in maternal/child health from the College of Nursing, University of Saskatchewan.

The partners wanted to improve the care provided by community health nurses for their prenatal clients by promoting awareness and understanding of issues associated with woman abuse and by formulating a culturally sensitive screening tool. Current knowledge of woman abuse assessment was provided by the Nursing Best Practice Guideline entitled Woman Abuse: Screening, Identification, and Initial Response<sup>1</sup> that had been developed by the Registered Nurses' Association of Ontario.

The partners held a workshop to support collaborative, knowledge transfer and proactively engage stakeholders. The main objectives of the workshop were to improve the woman abuse care provided by community health nurses and to develop an appropriate screening tool that would be suitable for the prenatal clients in this context. The workshop provided an opportunity to apply current knowledge of woman abuse assessment in the local First Nations community context and proactive engagement through participation of local practitioners.

## METHODS AND STRATEGIES

The partners used the Promoting Action on Research Implementation in Health Services (PARIHS) framework<sup>2,3</sup> to structure their knowledge translation endeavours. The PARIHS framework is a useful tool for understanding the relationship between evidence, context and facilitation. It can be used to implement best practice or, if the change does not occur, to determine where the delay in implementation occurred.

A one-day workshop was held on September 5, 2008 to promote awareness and understanding of issues associated with woman abuse and to formulate a culturally-appropriate screening tool.

The workshop was attended by community Elders, family health workers, community family violence workers, community health nurses and interested community members. Their expertise, insights and familiarity with the community were necessary to evaluate the best practice and related screening tools for use in their community.

The workshop began with introductions and a prayer by the Elders in attendance. This was followed by an overview of woman abuse, including prevalence, dynamics and health consequences. We then examined the role of the health care provider in screening and possible barriers to screening.

The workshop participants were then divided into groups to review the Ontario guidelines. Each group was asked to examine the assessment tools and to discuss the strengths and weaknesses of each one from a local cultural and social perspective. Participants were asked to determine which components they felt comfortable with and which components they were uncomfortable with. Although the Ontario assessment tools were considered to be “best practice,” there were components of each of the tools that the participants did not support as some of the screening questions as they were seen as uncaring, blunt or cold in the absence of an established relationship.

There was a high level of participation in the workshop. In addition, a workshop evaluation indicated that participants had increased their knowledge of the dynamics of woman abuse and found it helpful to contribute to a screening tool that would be used in their community.

Local leadership and participation was an important factor in the workshop’s success. The tribal council was in the midst of devolving into another entity as the workshop was being designed. Despite these internal political stressors, the plans for the workshop continued as planned. The project partners shared a vision of how they wanted the maternal/child program to evolve and fully supported this initiative and the impacts it would have on their work and organizational environment.

The nurse specialists, with clinical and academic backgrounds, contributed their expertise in tailoring the guidelines to the participants’ needs. Following the workshop, the university faculty member incorporated the participants’ discussion and feedback with the Ontario guidelines in order to obtain an assessment tool that would better fit the needs of this particular First Nations health organization. It was then reviewed and approved in a collaborative process by the project partners, nursing supervisor and the community health nurses (see the end of this case for the tool).

## CONCLUSION AND LESSONS LEARNED

The workshop led to effective KT in action as the screening tool was incorporated into the organization’s Prenatal Assessment Form effective January 2009. Women in the community’s Maternal Health Program are now routinely screened for woman abuse and subsequently referred to useful services offered in their communities.

The practitioners’ active participation in developing the tool and their support for the final product was the most important component of the project. There would have been no change without their contribution.

The informal partnership between First Nations, Health Canada and University of Saskatchewan was a useful method for pooling expertise and experiences and supporting knowledge exchange. It proved particularly helpful in understanding the project context as was demonstrated by the nursing supervisor’s leadership during a period of internal political stress.

At this time, the tool has not been evaluated to determine whether there has been an increase in referrals to community programs for woman abuse, although we are planning to investigate this further.

### LESSONS LEARNED

- It is important to collaborate early and often with community members.
- Existing tools can be effectively modified to meet local circumstances.
- Knowledge exchange and local leadership are key ingredients in an effective partnership.



## ACKNOWLEDGEMENTS

T. Diane Campbell, RN, MN, PhD(c) (Assistant Professor, College of Nursing, University of Saskatchewan) co-developed the content and process of the workshop and modified the screening tool.

Heather Beatch (Community Health Nursing Supervisor, Battlefords Tribal Council) provided the impetus for the workshop, organized the speakers and invited community participants. Heather provided practical and cultural guidance.

John Mitchell (Clinical Nurse Specialist – Mental Health, Health Canada, First Nations and Inuit Health Program) co-developed the content and process of the workshop and provided feedback on the screening tool.

For additional information, contact T. Diane Campbell (diane.campbell@usask.ca, 306-565-1912)

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# WOMAN ABUSE SCREENING TOOL

## BACKGROUND

This tool is for routine universal screening for woman abuse in all practice settings. Routine screening is performed on a regular basis regardless of whether or not signs of abuse are present

### Start with a simple explanation as to why the questions are being asked.

#### *For example:*

“Because woman abuse is so common in many people’s lives, I now ask all my clients about it.”

“Many of the women I see are dealing with abuse in their relationships. Some are too afraid and uncomfortable to bring it up themselves, so I’ve started asking about it routinely.”

### Then ask specific questions.

#### *For example:*

“Have you ever been hurt or threatened by someone?”

“Are you currently or have you ever been in a relationship where you were physically hurt, threatened, or made to feel afraid (or unsafe)?”

“Have you ever been emotionally, physically, or sexually abused by your partner or someone important to you?”

### Specific Considerations for Teen Women

#### *For example*

“Everyone has a right to be safe and choose what happens to their body.”

“Sometimes people say and do things to us that can be hurtful and make us feel confused and uncomfortable. Has anyone ever made you feel that way?”

*Let the response guide your next question(s).*

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## EXAMPLES OF TYPES OF ABUSE

### **Physical**

Any unwanted physical contact/kicks, punches, pinches, pulls, or pushes/spits/ hits with objects

### **Verbal/Emotional**

Yelling/silence/neglect/ never forgiving

### **Environmental**

Harms pets/destroys possessions/throws and slams

### **Social**

Controls who she sees/assaults her in front of children

### **Sexual**

Unwanted sexual contact/ knowingly transmits sexual diseases

### **Financial**

Takes her money/forges her name/withholds money

### **Spiritual**

Uses religion to justify dominance/mocks her beliefs

**1. In general, how would you describe your relationship?**

a lot of tension     some tension     no tension

Comment: \_\_\_\_\_  
\_\_\_\_\_

**2. Do you and your partner work out arguments with:**

great difficulty     some difficulty     no difficulty

Comment: \_\_\_\_\_  
\_\_\_\_\_

**3. How do you feel after you have had an argument?**

a lot of tension     some tension     no tension

Comment: \_\_\_\_\_  
\_\_\_\_\_

**4. Do arguments ever result in hitting, kicking, or pushing?**

often     sometimes     never

Comment: \_\_\_\_\_  
\_\_\_\_\_

**5. Do you ever feel frightened by what your partner says or does?**

often     sometimes     never

Comment: \_\_\_\_\_  
\_\_\_\_\_

**6. Has your partner ever abused you physically?**

daily     weekly     monthly     yearly     never

Comment: \_\_\_\_\_  
\_\_\_\_\_

**7. Has your partner ever abused you emotionally?**

daily     weekly     monthly     yearly     never

Comment: \_\_\_\_\_  
\_\_\_\_\_

**8. Has your partner ever abused you sexually?**

daily     weekly     monthly     yearly     never

Comment: \_\_\_\_\_  
\_\_\_\_\_

# 11.

# Student

## Health Research: A Catalyst for Changes in Practice

Jennifer Cushon, Cory Neudorf, Christina Scott (Saskatoon Health Region);  
Scott Tunison (Saskatoon Public Schools)



SASKATCHEWAN POPULATION HEALTH AND EVALUATION RESEARCH UNIT



## ABSTRACT

When troubling health disparities based on geography were found in Saskatoon, Saskatchewan, the Saskatoon Health Region pursued a program of research to more fully explore the disparities and to introduce evidence-based interventions to address them. A fundamental component of this research program has been integrated knowledge transfer, where knowledge users were engaged at the beginning of the research process and continued to be involved throughout all stages of the research.

This paper uses the example of one component of the research program, the Saskatoon Student Health Survey, to illustrate how a research team has used integrated knowledge transfer to affect changes in practice in both the health sector and the education sector in Saskatoon. This example demonstrates that integrated knowledge transfer techniques, such as constant communication between the researchers and knowledge users, opportunities for knowledge users to offer input into the direction of the research, and using a variety of dissemination tactics, can facilitate change.



- *Conducted a student health survey to measure health disparities by neighbourhood, in partnership with the public and Catholic schools.*
- *Used integrated knowledge transfer throughout the research process, involving users who had the ability to implement practice changes.*
- *Ensured that there was constant communication between partners regarding the direction of the research and about the changes the research has prompted.*

## INTRODUCTION

In 2006, the Saskatoon Health Region conducted a study to compare the health status in a cluster of six low-income neighbourhoods in Saskatoon, Saskatchewan, to the rest of the city. The study<sup>1</sup> established that there were significant and sometimes staggering disparities between the low-income neighbourhoods and the rest of Saskatoon for a range of health outcomes (e.g. mental disorders, low birth weight, infant mortality, etc.). The results of the study were shared in numerous community forums and with relevant agencies to obtain input on next steps. The community and agencies identified child or student health as a key area for further research and action.

The research team determined that local health and education stakeholders, Saskatoon Public Schools, Greater Saskatoon Catholic Schools and the Saskatoon Health Region, were the primary users of student health knowledge as they have the ability to implement practice changes.

Provincial and federal stakeholders were not identified as primary knowledge users since local stakeholders were the best positioned to implement practice changes that directly affect Saskatoon children, and practice change was one of the main objectives.

The knowledge users were engaged by the research team to develop a research tool to gather data on health status, broadly defined, amongst children in the City of Saskatoon (grades five through eight). As the result of this dialogue, the Saskatoon Student Health Survey was created. The objectives of the survey were:

1. To measure the extent of health disparity between students from low-income neighbourhoods and students in other neighbourhoods; and
2. To inform practice change through knowledge transfer efforts.

## METHODS AND STRATEGIES

The Saskatoon Student Health Survey was administered by the Saskatoon Health Region in 2006/2007 and 2008/2009 to all students in grades five to eight in the Public and Catholic schools whose parents consented. The first survey measured physical activity, mental health status, risk behaviours (e.g. smoking), bullying, self-reported health and health determinants. Following the dissemination of results from the first survey, the school divisions requested that the next Saskatoon Student Health Survey focus on the areas of mental health, physical activity and bullying, areas where some troubling results had been found.

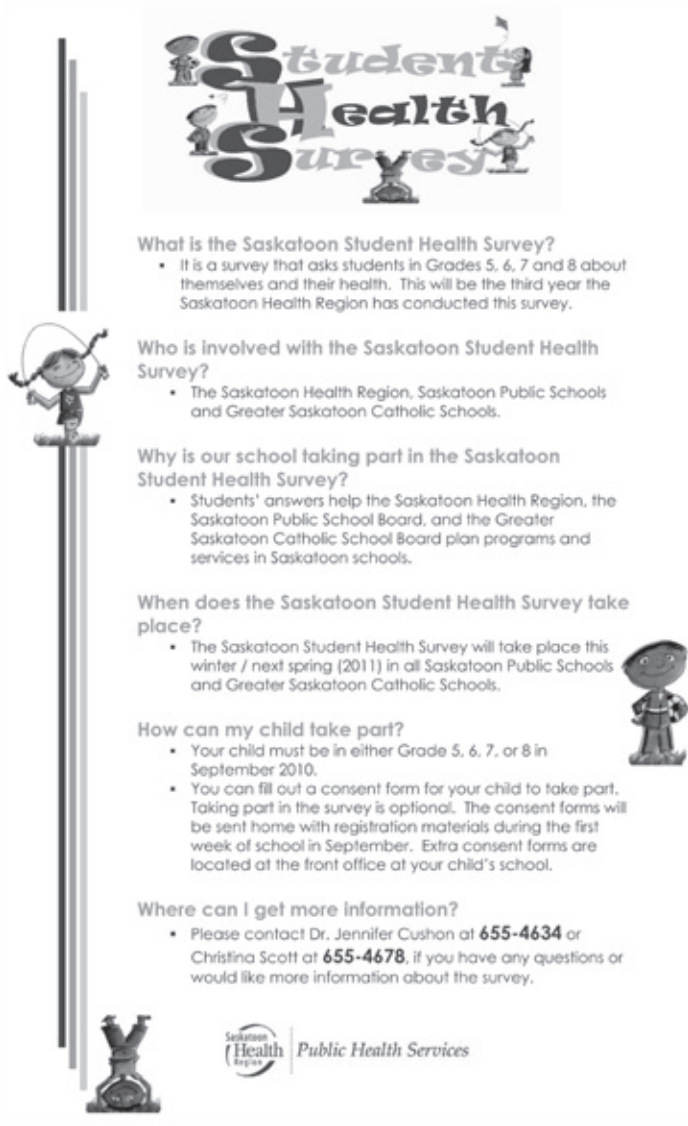
Both surveys found significant disparities between students in low-income neighbourhood schools compared to students in other schools for a range of health measures (e.g. thoughts about suicide, bullying, etc.).

Results from the two surveys were widely disseminated to key knowledge-users in the Saskatoon Health Region, such as senior decision-makers and staff who work regularly with students through meetings and consultations. For instance, results were presented and discussed at staff events, allowing the public health nurses who serve Saskatoon's schools to engage with the results for the children they serve. More traditional approaches to knowledge transfer were also pursued by the research team, such as publication in peer-reviewed journals and national conference presentations.<sup>2-5</sup>

Results were also disseminated to the education stakeholders through a variety of means, including face-to-face interactions and fact sheets. In 2008, a School Health Committee was formed that brought together senior decision-makers from the Health Region, the school divisions, and the principals and community workers from the schools in the cluster of six low-income neighbourhoods. The committee serves as a forum for using the research results to plan changes in practice. The local health and education stakeholders decided to begin by pursuing practice change in the schools most in need, which would eventually lead to changes throughout the two school divisions.

In addition, a researcher attempted to visit each school that had participated in the survey to share the results both verbally and in the form of a fact sheet. Fact sheets were prepared in plain language and presented all statistical information in a straightforward manner. If the school indicated they did not want a visit by the researcher, the fact sheet was mailed to the school.

Meetings at the schools sometimes involved various staff members, but most often they involved only the principals and vice-principals. As a result, teachers and school community workers did not always receive the results for the students with whom they were working, which may have limited the potential effect of our knowledge transfer efforts. A lesson learned has been that dissemination should occur among a



The image shows a vertical fact sheet titled "Students Health Survey". At the top, there is a cartoon illustration of a child jumping rope. The title "Students Health Survey" is written in a large, stylized font. Below the title, there are several sections of text, each with a small cartoon character icon. The sections are: "What is the Saskatoon Student Health Survey?", "Who is involved with the Saskatoon Student Health Survey?", "Why is our school taking part in the Saskatoon Student Health Survey?", "When does the Saskatoon Student Health Survey take place?", "How can my child take part?", and "Where can I get more information?". At the bottom, there is a logo for "Saskatoon Health Region" and "Public Health Services".

**Students Health Survey**

**What is the Saskatoon Student Health Survey?**

- It is a survey that asks students in Grades 5, 6, 7 and 8 about themselves and their health. This will be the third year the Saskatoon Health Region has conducted this survey.

**Who is involved with the Saskatoon Student Health Survey?**

- The Saskatoon Health Region, Saskatoon Public Schools and Greater Saskatoon Catholic Schools.

**Why is our school taking part in the Saskatoon Student Health Survey?**

- Students' answers help the Saskatoon Health Region, the Saskatoon Public School Board, and the Greater Saskatoon Catholic School Board plan programs and services in Saskatoon schools.

**When does the Saskatoon Student Health Survey take place?**


- The Saskatoon Student Health Survey will take place this winter / next spring (2011) in all Saskatoon Public Schools and Greater Saskatoon Catholic Schools.

**How can my child take part?**

- Your child must be in either Grade 5, 6, 7, or 8 in September 2010.
- You can fill out a consent form for your child to take part. Taking part in the survey is optional. The consent forms will be sent home with registration materials during the first week of school in September. Extra consent forms are located at the front office at your child's school.

**Where can I get more information?**

- Please contact Dr. Jennifer Cushon at **655-4634** or Christina Scott at **655-4678**, if you have any questions or would like more information about the survey.

 **Public Health Services**

wider audience in order to include all the stakeholders who work directly with the children.

### Changes in Practice

The data from both surveys strongly pointed to areas that required improvement (e.g. mental health, physical activity). Results have been used to produce changes in practice in both the schools and the Saskatoon Health Region.

Based on the results from the 2006/2007 survey (primarily the significant differences in health status by neighbourhood income), the Saskatoon Health Region re-assigned six public health nurses and a variety of other public health staff to schools in the six low-income neighbourhoods in Saskatoon, collaborated with the University of Saskatchewan's College of Medicine to open paediatric clinics in two community schools,<sup>6</sup> and provided funding to 10 community schools to enhance and develop after-school programs aimed at promoting physical activity and mental health.

Results from the 2008/2009 survey prompted the School Health Committee to explore options for improving mental health and physical activity in the cluster of low-income schools. Based on a best practices literature review conducted by the Public Health Observatory, Saskatoon Health Region (an internal document), members of the committee chose to implement ROAR (Resilience. Opportunity. Attitude (self-talk). Reflection), a program partially based on the Resourceful Adolescent Program (RAP) from Australia, and a physical activity program based on the Action Schools! BC model. Modifications to these programs were made to suit the local context.

Evaluations of these interventions are currently being conducted to determine whether the interventions have been able to reduce the disparity in health status that was found in the surveys. Early evaluation results indicate that the fostering of relationships and trust between the local health and education sectors has been key to the implementation of these interventions.

Changes in practice will eventually be implemented on a broader scale as lessons are learned through these targeted interventions. However, individual schools throughout Saskatoon have altered and/or created programming to address issues that were found in the surveys. For example, a number of schools in Saskatoon introduced new physical activity programs after principals and teachers learned of low physical activity scores in their schools.

An evaluation of the knowledge transfer initiatives related to the Saskatoon Student Health Survey is currently being planned by the research team in order to assess how knowledge transfer may be improved and to systematically delineate the effects of knowledge transfer.

## CONCLUSION AND LESSONS LEARNED

In our knowledge transfer case study, we have learned a number of lessons that will guide our future approaches to knowledge transfer and that could also be applied to other

cases and/or settings. First, knowledge users should be involved in the research process from the beginning, one of the primary hallmarks of successful integrated knowledge transfer initiatives.

We feel an intersectoral partnership approach to research has worked very well due to the constant communication between the two sectors regarding the direction of the research, and about the changes the research has prompted. An intersectoral approach to research and knowledge transfer could be used in other settings, particularly when different sectors have similar objectives or priorities, such as improving the health of children.

Another key lesson learned has been that knowledge transfer, particularly the dissemination of research results, should be comprehensive; in other words, decision-makers are not the only knowledge users. In our case, we learned that knowledge transfer must also involve the teachers who administer the survey. Dissemination has not always targeted teachers and as a result not all teachers feel a strong sense of commitment to facilitating data collection.

Moreover, we may also want to explore disseminating results to the children's parents as they may be able to act on research results at an individual level or even through community mobilization. The audiences for knowledge transfer initiatives will most likely be broad and have different needs; therefore, dissemination must be tailored to each particular audience.

The intended effect of a knowledge transfer initiative should be carefully considered at the beginning of any initiative and be revisited as the research progresses. We have learned that program change is an admirable goal, but policy change has the potential to affect an even greater number of children and families. For example, our research results demonstrate large geographical disparities and troubling scores in certain domains, such as physical activity and mental health, areas that could be affected and improved with policy change. To affect policy change, knowledge transfer initiatives will have to be expanded to a wider array of stakeholders at both the provincial and federal policy levels.

### LESSONS LEARNED

- The intended effect of a knowledge transfer initiative should be carefully considered at the beginning of any knowledge transfer initiative. Policy change and practice change require different stakeholders.
- An intersectoral approach to research and knowledge transfer can be effective if the sectors have similar objectives or priorities.
- Dissemination of research results should be comprehensive and tailored to meet the needs of each particular audience.



## ACKNOWLEDGEMENTS

Jennifer Cushon, PhD (Program Manager of Research and Evaluation, Public Health Observatory, Saskatoon Health Region) manages the research program and the knowledge transfer activities related to this research.

Cory Neudorf, MD, MHSc, FRCPC (Chief Medical Health Officer, Saskatoon Health Region) is the Principal Investigator on the grant that supports this research program.

Christina Scott, MSc(c) (Research Assistant, Public Health Observatory, Saskatoon Health Region) is responsible for the coordination of the Student Health Survey.

Scott Tunison, PhD (Coordinator, Research and Evaluation, Saskatoon Public Schools) facilitates the Student Health Survey within the school division and ensures that the results are disseminated throughout Saskatoon Public Schools.

We wish to thank all of the teachers, principals, vice-principals, community school coordinators and other school staff that made this work possible.

The School Health Committee has also been integral to this work and deserves special recognition.

Finally, we wish to acknowledge our partners in the Health Promotion Department and the Building Health Equity Program of Public Health Services for their tremendous efforts at implementing change in Saskatoon.

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For additional information, contact Dr. Jennifer Cushon (jennifer.cushon@saskatoonhealthregion.ca, 306-655-4634)

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# 12. Involving

## Stakeholders in Integrating Health and Nutrition into the School Curriculum

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Brenda Kalyn (College of Education, University of Saskatchewan),  
Dan Ramdath (Faculty of Medicine, University of the West Indies &  
Adjunct Professor, University of Saskatchewan),  
Sharon Mangroo (Director of Curriculum-Seamless, Ministry of Education, Trinidad and Tobago)



Participants at National Symposium



SASKATCHEWAN POPULATION HEALTH AND EVALUATION RESEARCH UNIT



## ABSTRACT

In 2006, researchers at the University of Saskatchewan and the University of the West Indies, in partnership with the Trinidad and Tobago Ministry of Education and the Caribbean Health Research Council, initiated a knowledge translation research project to promote healthy weight and lifestyle behaviours among school-aged children in Trinidad and Tobago.

Promotion of healthy weight and lifestyle behaviours among school-aged children were advanced through several knowledge translation strategies such as a national symposium, a student photovoice workshop, discussions with stakeholders, curriculum integration in four intervention schools and a public dissemination workshop following the intervention.

This project demonstrates effective KT in action as the KT strategies led to the development of a draft School Nutrition Policy by the Ministry of Education and a draft School Health Policy by the Ministry of Health. Project activities also received parliamentary support in November 2008. Health and nutrition were successfully integrated across the curriculum in the four intervention schools. The outcomes were so positive that the Curriculum Department has encouraged expanding the project from the eight-school pilot to 100 schools in Trinidad and Tobago.



- *To promote healthy weight and lifestyle behaviours among school-aged children, various KT strategies were used: a national symposium, a student photovoice workshop, discussions with stakeholders, curriculum integration in four intervention schools and a public dissemination workshop.*
- *The issues raised by students in the photovoice workshop provided the framework for curriculum integration activities. An evaluation of the tool's impact is being discussed.*

## INTRODUCTION

Growing evidence suggests that health during childhood sets the stage for adult health. This perspective creates an important ethical, social and economic imperative to ensure that all children are as healthy as they can be in their early years.

In developing countries undergoing social and cultural transitions, the trend away from infectious disease patterns to chronic diseases, such as obesity and diabetes, has a severe social and economic impact on population health.<sup>1</sup> Trinidad and Tobago illustrate how a developing country has undergone dramatic changes in population structure and lifestyle.<sup>2</sup> In North America, there has also been a shift from traditional patterns of food consumption to high levels of sugars and fats, combined with reduced physical activity, leading to a threefold rise in obesity.<sup>3</sup>

In 2006, researchers at the University of Saskatchewan and the University of the West Indies, in partnership with the Trinidad and Tobago Ministry of Education and the Caribbean Health

Research Council, initiated a KT research project to promote healthy weight and lifestyle behaviours among school-aged children in Trinidad and Tobago.

The research exchange model was built on listening to the voices of the various stakeholder groups, especially the children, and on promoting the establishment and nurturing of relationships amongst those who produce research and those who are likely to use it.

### ***The project's primary objectives were to:***

- Explore existing mechanisms (policy and practice) in Trinidad and Tobago's education system for addressing health promotion in schools;
- Develop and implement a framework to increase and infuse health education into the existing curriculum; and
- Make recommendations for the development of a long-term intervention strategy for health promotion in Trinidad and Tobago's schools.

These goals were accomplished and demonstrate effective KT in action through KT activities including a national symposium, a student photovoice workshop, discussions with stakeholders, curriculum integration in four intervention schools and a public dissemination workshop following the intervention.

## **METHODS AND STRATEGIES**

### ***National Symposium***

A national symposium on school health brought together a diverse group of 150 Ministry of Education stakeholders (curriculum officers, principals, teachers, parents, health professionals, academics, researchers, NGOs). The Honourable Hazel Manning, the Minister of Education at that time, attended.

Teachers were asked to bring one or two students with them to the symposium in order to gain an understanding of the issues from the students' perspective. This may have been the first time that student leaders were invited to participate in such a forum, as children and youth in Trinidad and Tobago have few opportunities to positively influence the laws and regulations that govern their lives.<sup>3</sup>

Participants were given an opportunity to analyze the strengths, weaknesses and opportunities within the policy environment of the Ministry of Education. The students discussed the issues that contributed to some of their decisions about healthy lifestyles as they related to the issues of overweight students and obesity.

The symposium raised awareness of a number of policy and curriculum issues that affect the schools' ability to provide students with the knowledge, attitudes and skills required to make positive health decisions. Training and development of teachers, as well as curriculum and instructional infrastructure support, were identified as crucial in order to sustain broad-based health education integration across the curriculum.

### ***Photovoice Workshop***

Two graduate students from the University of Saskatchewan, under the mentorship of the combined faculty team, conducted a photovoice workshop as part of the larger situational analysis. Nine senior high school students from three urban high schools participated in the study.

The workshop combined photographic images and participants' explanations to document policy issues concerning their perceptions of "what health means to young people." A follow-up session was held after the photographs were taken, and the students were encouraged to discuss the community health problems and resources represented within their photography.



*Students at one of the photovoice workshops*

The issues and strengths raised by the students provided the foundational framework used to implement integrated learning within the elementary health education curriculum in the second phase of the project.

### ***Discussions with Stakeholders***

Several focused discussions with community and corporate stakeholders, including the Trinidad and Tobago National Parent Teacher Association, were held before and as a follow-up to the symposium.

Site observations of the school environments were also conducted at primary schools across Trinidad and Tobago and discussions held with individual school staff.

The research team took advantage of all possible opportunities to dialogue with people engaged in activities that supported school health promotion in order to support the call for a comprehensive strategy to facilitate integrated health education.

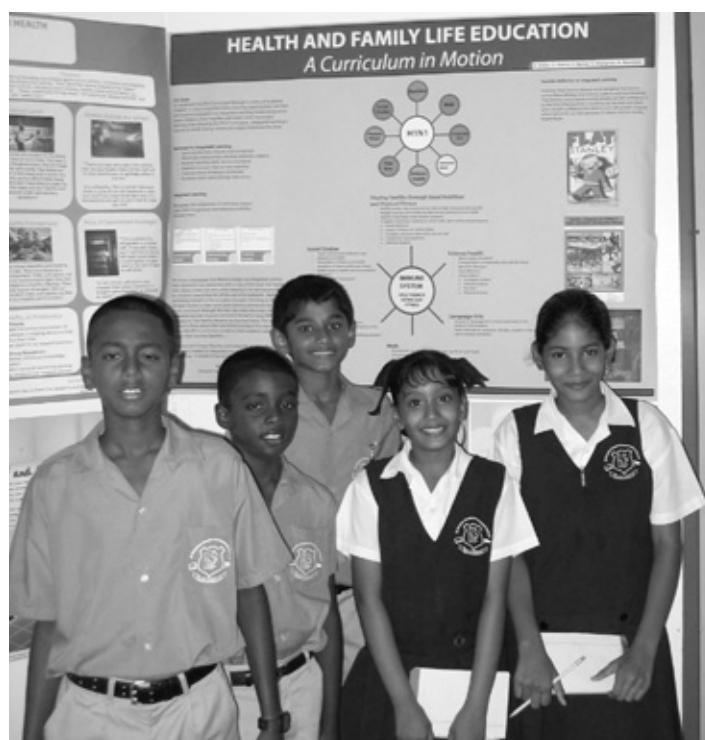
### ***Curriculum Integration***

Phase Two of the project focused on the development of a teacher-led model of integrating health promotion into the elementary school curriculum in Trinidad and Tobago. The goal was to increase teacher advocacy within curriculum implementation and broaden students' experiences within physical education, nutrition and overall health education in order to affect changes within the students' learning and living environments.

Twenty-four teachers and students from eight primary schools (four intervention and four control) participated. The model adopted for teacher training and development included:

- Video-conference workshops hosted by the University of Saskatchewan to promote knowledge exchange and sharing of best practices;

- An online email service for the research team;
- Site visits to schools to monitor project integration and provide curriculum support;
- Use of the Flat Stanley Project<sup>4</sup> as an interactive approach to integrating language arts, health, nutrition, physical activity and citizenship into the curriculum; and
- Use of TAKE 10!<sup>®</sup>, an interactive, classroom-based program designed to integrate academic curriculum elements with a physical activity program.<sup>5</sup>
- In order to provide ongoing support that would help ensure successful implementation, teachers were encouraged to:
  - Use reflective journal writing as a method for tracking process and progress;
  - Keep portfolios of student work and curriculum development; and
  - Discuss the project and collaborate with colleagues.
- During the site visits, teacher preparedness and integration of discovery, application and assessment was observed in a variety of ways, including:
  - Poems and songs composed by students to address health concepts;
  - Letters to pen pals/friends to help students develop critical thinking skills;
  - Food and nutrition charts and analogies to reinforce science lessons; and
  - Trips to the local marketplace to demonstrate healthy foods and to teach the importance of label reading.



*Students with a poster on the project*

The data that emerged from listening to the stakeholders, including students, at the National Symposium and the mandate from Parliament to increase student knowledge and affect health-related behaviours were the catalyst for action. Validating these issues was important because schools in Trinidad focus on meeting testable academic requirements and do not encourage non-testable subjects, such as health.

Health and nutrition were successfully integrated across the curriculum in the four intervention schools. In addition, the resources that were supplied for the schools were well used by teachers and were evident in student portfolios. The support of principals and other school staff was also evident.

The KT strategies employed in this north-south collaboration resulted in a successful KT in action that brought about changes in both policy and practice.

*Active Involvement of All Stakeholders throughout the Project:* Involve all stakeholders throughout the project to facilitate effective integrated KT. Researchers and knowledge-users were actively involved in the project at all phases of planning, implementation and evaluation.

*Continual communication and interaction:* Continual communication is necessary to facilitate active involvement of stakeholders. To overcome the communication barrier of distance, video-conferencing, email, site visits (by team members and Trinidad support), in-school teacher supports by administration, and constant reinforcement of process and progress were invaluable tools.

The project culminated in a public dissemination workshop in April 2010. Teachers and students from the intervention schools shared their work through song, physical activity, poems, portfolio presentations, posters and teacher's reflective comments. Participants were invited to reflect and contribute to an integration plan to move the project forward.

The outcomes were so positive that the Curriculum Department has encouraged expanding the project from the eight-school pilot to 100 schools in Trinidad and Tobago.

## **CONCLUSION AND LESSONS LEARNED**

This project demonstrates effective KT in action as the KT activities employed in this project contributed to the development of a draft School Nutrition Policy by the Ministry of Education and a draft School Health Policy by the Ministry of Health. Project activities also received parliamentary support in November 2008. Each of these results strengthened the partnership and increased awareness of the project. This was seen as especially crucial since the Ministry of Education had attempted programs to address the health needs of school children in the past with limited impact.

*Student Involvement:* Students' voices were recognized through involvement, and this knowledge was applied to integrated curriculum in the intervention schools. Considering the views and experiences of young people can help decision-makers gain insight into student issues and effective ways to address them.

*Canadian Application:* The diabetes, obesity and overweight issues in Canadian youth are staggering, and the negative impact on their health must be addressed within schools and within the greater community.<sup>6</sup> Canadian policymakers have the potential to follow this project's example by listening to the voices of Canadian students who experience similar, yet culturally different, influences on their lifestyle choices.

## LESSONS LEARNED

- Involving partners in all phases of the project facilitated greater use of research by decision-makers and established greater relevance in the research's orientation.
- Considering the views and experiences of young people can help decision-makers gain an understanding of the issues students encounter.
- Ongoing contact is imperative as lapses in communication can impede progress.



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Sharon Mangroo, MA (Ministry of Education, Trinidad and Tobago) was the local research partner.

The partnership team consisted of several individuals over the project phases. These partners were from the University of Saskatchewan, the University of the West Indies, the Ministry of Education Trinidad and Tobago, the Caribbean Health Research Council, graduate and undergraduate students (University of Saskatchewan, University of the West Indies), and students, teachers, administrators and curriculum officers within the local schools.

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University of Saskatchewan graduate students, Alison Sum and Brenda Thompson, facilitated the photovoice workshop.

Kyla Park and Jaris Swindovich (University of Saskatchewan undergraduate students) participated in the National Symposium and

photovoice workshop.

Samantha Mitchell (graduate student, University of Saskatchewan) participated in aspects of evaluating the curriculum intervention.

Debbie Hillaire (graduate student) and Kimlyn Cheong (undergraduate student) from the University of Saskatchewan facilitated various aspects of the project, including the dissemination workshop.

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# 13.

# Evaluation

## of a Train-the-Trainer Program for Child Care Providers

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**SPHERU**

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## ABSTRACT

The Centre de liaison sur l'intervention et la prévention psychosociales (CLIPP) developed a training program to provide caregivers in Québec child care centres with information about child abuse. Using a train-the-trainer approach, the program trained staff members in each home child care coordinating office. These facilitators were then assigned to train the child care providers in their region.

Following the program, an evaluation team was established to determine what factors had an impact on the facilitators' ability to effectively transfer the knowledge they had acquired to child care workers. A mixed methods evaluation approach was chosen with both qualitative and quantitative components.

Nearly half of the individuals who had taken the train-the-trainer program prepared and delivered training. However, the degree of training was less than optimal. Depending on the region, the training sessions reached a little more than one third of the child care providers, were much shorter than recommended and covered, on average, two thirds of the proposed content. The evaluation suggests that multiple factors, such as sufficient time, an awareness of the need for the training and self-efficacy as a trainer, must be present to ensure effective knowledge transfer in a train-the-trainer context.

*(See Rinfret and Dagenais on pages 70-73 for another case on this project.)*



- *In order to educate child care providers on child abuse, a literature review was conducted and a training program developed.*
- *This training program was delivered using a train-the-trainer model, and its impact was evaluated using mixed methods (49 qualitative interviews and 125 quantitative surveys).*

## INTRODUCTION

The Centre de liaison sur l'intervention et la prévention psychosociales in Montréal, Québec, coordinates and provides expertise in the transfer of psychosocial knowledge. The Action in Childcare Settings program was established in 2006 in response to a need expressed by child care workers in Québec for information about how to prevent, detect and intervene in child abuse situations.

In order to provide these caregivers with a better understanding of the issues of physical and psychological abuse and shaken baby syndrome, the Centre de liaison conducted a literature review and developed a training program addressing these issues. The Action in Childcare Settings program employed a train-the-trainer approach to achieve its knowledge transfer objectives. Within the framework of this educational model, the Centre de liaison trained staff members in each home child care coordinating

office in Québec. These individuals were then assigned to train the child care providers in their region.

The train-the-trainer approach seemed to be a good fit, as the coordinating offices are responsible for the training and supervision of individuals offering child care services in a residential setting. In addition, this approach is known to lead to long-term sustainability since the knowledge is transferred to a large number of community members.<sup>1</sup>

The training program included a kit containing theoretical information, a DVD of exercises and case studies, and teaching materials. The kit also provided a training guide to assist the facilitators. The guide was designed to complement the knowledge that participants acquired during training with regard to both the theoretical content on child abuse and shaken baby syndrome and the skills required to transfer training to the participants' settings.



## METHODS AND STRATEGIES

The Centre de liaison sur l'intervention et la prévention psychosociales has a strong commitment to quality and continuous program improvement, and regularly assesses the strengths and weaknesses of its tools to ensure that they meet their objectives. An evaluation team was established to determine which factors had an impact on the facilitators' ability to effectively transfer the knowledge they had acquired to child care workers.

The evaluation employed a mixed methods approach, as this format is known to provide the most definitive and comprehensive response possible to evaluation questions.<sup>2,3</sup> It included two complementary components: a qualitative component involving interviews, and a quantitative component consisting of a multiple-choice survey.

The telephone interviews began almost a year after the first training sessions. Forty-nine of the 370 facilitators who had taken the training program answered open-ended questions regarding their assessment of the program and the elements that facilitated or hindered the subsequent transfer of this training to the child care workers in their region.

The qualitative interview component was particularly sensitive to the facilitators' realities, as they could express whatever they felt was a factor influencing their capacity to act as trainers. But, as interviews are very time consuming and could not be carried out with all the facilitators, a quantitative component was also developed based on the responses to the interviews.

One facilitator in each of the 125 of 148 home child care coordinating offices that had received training, agreed to answer the survey approximately 18 months after having taken part in the training. The survey, which had two parts, was carried out by telephone as the facilitators were located in different regions of the province.

The first part of the survey consisted of closed-ended questions about three different factors that might have influenced the implementation of the training. These were: organizational factors (e.g. time available); factors specific to the facilitators (e.g. sense of self-efficacy and perception of program relevance); and factors related to the training itself (e.g. quality of the training tools provided).

The second part of the survey focused on dose and fidelity. Dose referred to the number of hours of training delivered by the facilitators, while fidelity referred to the degree of adherence (or lack thereof) to the content recommended by the training guide included in the kit.<sup>4</sup> Accordingly, this section

consisted of open-ended questions on the number of training sessions delivered, the number of participants who attended, training duration and training content.

## Evaluation Findings

The evaluation results indicate that while nearly half the facilitators who had taken the train-the-trainer program prepared and delivered training within a period of approximately 18 months, the dose (amount of training delivered) was relatively low.



Using a scale of 0 to 9, the dose was calculated by multiplying the number of training hours by the proportion of child care workers in a designated region who had participated in the training. 0 indicated that no child care workers had received the training, while 9 indicated that every child care worker in the region received the full training program.

The mean was 1.69, based on the responses of the 58 facilitators who delivered training, indicating that either the training was of short duration or that a low proportion of child care workers had been trained. The mean duration of training was 4.5 hours. This is especially noteworthy, as the guide recommends 6 to 9 hours of training, and emphasizes that 9 hours are required to achieve all the program objectives.

The average proportion of child care workers who received training in the different regions was 38% for training on physical abuse, 40% for training on shaken baby syndrome and 41% for training on psychological abuse. This suggests that the facilitators, on average, reached only a little more than one third of all child care providers in their region.

Fidelity to the content of the Action in Childcare Settings program, as set out in the training guide, could be qualified as average. The facilitators covered approximately two thirds of the proposed content. This could be due to the fact that the training sessions were not long enough to cover all the program content, or it could indicate that the facilitators included content not prescribed by the guide.

Thus, the evaluation indicates that the degree of training implemented by the facilitators was less than optimal in terms of both dose and fidelity. Time available was the most significant influence on both dose and fidelity. The second most important factor affecting dose was the extent to which the facilitators perceived the training as relevant to their work setting and to the child care workers in their region. Perceived relevance was also a factor for fidelity, but it was preceded by the facilitators' sense of self-efficacy in training delivery. This suggests that multiple factors, such as sufficient time, an awareness of the need for the training, and a sense of

self-efficacy as a trainer, must be present to ensure effective knowledge transfer in a train-the-trainer context.

Moreover, the facilitators who were interviewed explained that these factors (sufficient time, sense of self-efficacy and awareness of the need for the training) are not independent from one another but work closely together to influence training dose and fidelity. For example, facilitators mentioned that, even when they perceived that the training would respond to a need, it was difficult for them to organize one if they were short on time. However, the more the facilitators felt that the training would respond to an urgent need, the more they tried to find time to implement it.

The facilitators who were interviewed explained that because child abuse is such an important issue for child care workers, they felt an extra pressure to not only organize training, but to do their very best to make sure that the child care workers received the information in the best possible way. Of course, this additional pressure affected the facilitators' self-efficacy. However, they noted that when they had sufficient time, good preparation improved their self-efficacy. In contrast, when facilitators' self-efficacy was already high, their preparation time was reduced, making it easier to implement training despite a shortage of time.

## CONCLUSION AND LESSONS LEARNED

While the results of the evaluation of the Action in Childcare Settings program cannot be generalized, certain lessons can be derived for application to the implementation and evaluation

of other knowledge transfer programs that use a train-the-trainer model.

First, although knowledge transfer by training members of the community is a potentially efficient means of reaching a large population, this assessment underscores the importance of ensuring that the organizational context and personal characteristics of the individuals chosen to act as facilitators are favourable to the implementation of this method so that it yields maximum benefits.

Also, it should be noted that while the training guide provided in the kit encouraged the presentation of the content in its entirety, training implementation was left to the discretion of the facilitators. Employers did not require the facilitators to present all the issues addressed by the training. Making sure that a program obtains the organization's full support so that facilitators are held accountable may be an important prerequisite for the effective implementation of the train-the-trainer approach to knowledge transfer.

Moreover, the evaluation results indicate that, in a context as complex as the evaluation of knowledge transfer initiatives, there are clear benefits to using a mixed methods approach. Such an approach produces results that take into account the specific concerns of the target setting (qualitative component) while also enabling systematic analysis (quantitative component). The complementarity of these methods offers a more comprehensive and valid response to the question evaluated, with each method compensating for the limitations of the other.

## LESSONS LEARNED

- The organizational context is critical to the success of a train-the-trainer model.
- A mixed methods approach is an effective way to evaluate complex issues as it takes into account the specific concerns of the target setting while also enabling systematic analysis.
- Ongoing evaluation of KT strategies ensures quality and continuous program improvement.



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Christian Dagenais, PhD (Associate Professor, Université de Montréal, and Director of Evaluation, Centre de liaison sur l'intervention et la prévention psychosociale) was the thesis supervisor.

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# 14.

## Assessing Dissemination of Research Findings Using Qualitative and Cartographic Methods

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Figure 1 : Distribution of the Community Health Indicator Toolkit

## ABSTRACT

This case summarizes an evaluation of the effectiveness of the knowledge translation (KT) activities resulting from the First Nations Health Development Project. Working with nine northern Saskatchewan communities, the project developed community-identified health and wellness domains along with associated indicators to track progress and to create evidence that can guide program and policy decision making.

The findings were packaged in the form of a Community Health Indicators Toolkit that includes two components: a Community Health and Wellness Framework comprised of six domains with 225 potential indicators that reflect northern Saskatchewan views of healthy community, and detailed Program Logic Models for each community-based service.

Our KT evaluation included primary data collection through key informant interviews and cartographic analysis of the dissemination and uptake of the Toolkit. Interview participants discussed how they have applied the community health domains and indicators to develop community projects and as a resource for developing indicators for communities located outside of Saskatchewan.

The findings suggest that the Toolkit has some applicability to communities outside northern Saskatchewan, and that training sessions would facilitate greater use. The mapping approach was useful for evaluating distribution and for providing information about different uses for the Toolkit. Further analysis of the social network of adoption could help increase uptake and identify areas for expanding KT efforts.



- *A qualitative evaluation was conducted to examine how a toolkit developed in a community research project was distributed and being used.*
- *Semi-structured interviews asked open-ended questions about usage, useful or problematic elements, and further dissemination.*
- *A static map recorded the location and date of distribution.*
- *An interactive version of the map provided a container for additional information (photographs and information on usage).*

## INTRODUCTION

The First Nations Health Development Project, conducted in collaboration with the Prince Albert Grand Council and the Athabasca Health Authority, worked with nine northern Saskatchewan communities to determine the type of information that could be monitored to assess progress in community health and wellness. The outcome of this project was the creation of community-identified health domains along with associated indicators to track progress in each domain.

Our knowledge translation (KT) strategies from this project were guided by the goal of disseminating the findings in a form that could be used by managers and community-based staff in First Nations and northern provincial communities to create evidence that would guide program and policy decisions.

We chose to package the findings in the form of a Community Health Indicators Toolkit<sup>1</sup> that includes two components:

1. A Community Health and Wellness Framework comprised of six domains (Healthy Lifestyles, Services & Infrastructure, Economic Viability, Food Security, Environment, Identity &

Culture) with 225 possible indicators that reflect northern Saskatchewan views of healthy community; and

2. Detailed Program Logic Models for each community-based service.

The Toolkit was designed to assist community health staff in selecting those indicators most relevant to their communities, to provide specific guidance on locating community-level data, and to provide examples to assist managers in calculating and interpreting information in order to assess the effect of their programs on community health.

## **METHODS AND STRATEGIES**

To evaluate the effectiveness of the Toolkit as a KT strategy we addressed two objectives:

1. to learn how the Toolkit is being used by the community partners who participated in the original project; and
2. to discover its distribution and use by communities, organizations and researchers in other communities within Saskatchewan and outside the province.

These objectives guided the selection of our evaluation methods, which included qualitative interviews with a volunteer sample of those who had received the Toolkit, and cartographic analysis of the dissemination and uptake of the Toolkit.

Individuals who had received copies of the Toolkit between December 2006 and November 2008 were contacted to ask for their participation in an interview.

Our deliberative dissemination strategies had distributed the Toolkit to 65 individuals with a range of community and organizational affiliations. The Toolkit was initially distributed to health directors in each research community, project research partners, individuals who had requested findings from the research project, and others identified by the researchers as having a specific interest in Aboriginal community health indicators. It was provided in hard copy binder format to health directors, research partners and those who specifically requested this format; otherwise it was provided in CD format. Of these recipients, 41 (63%) were located in Saskatchewan, 21 (32%) in other Canadian provinces, and three (5%) in different countries.

### ***Semi-Structured Interviews***

The interview asked open-ended questions in three general categories:

1. How respondents utilized both components of the Toolkit;
2. Which elements of the Toolkit were found useful or problematic (both the content and the general format of the Toolkit); and

3. How respondents had further disseminated the Toolkit.

Respondents who had used the Toolkit in their work with urban communities or any communities located outside of Saskatchewan were asked specific questions related to its applicability outside of northern Saskatchewan.

Twelve individuals confirmed their willingness to participate and ultimately eight, or 12% of the known Toolkit recipients, were interviewed.

### ***Mapping***

Upon completion of the interviews, both the geographic location and the date of first acquisition by each respondent were entered into a customized GIS database developed using ArcGIS software. For presentation purposes, location was provided as a set of geographic coordinates while the date of uptake was aggregated into one of four consecutive time periods (see Figure 1). This allowed us to produce a static map that showed both the geographic extent of the Toolkit's diffusion and the rough timing of its spread. This static map was subsequently imported into Adobe Flash for additional processing to produce an interactive map which end users could manipulate in order to explore temporal patterns of dissemination. This also allowed us to create an interactive container for additional content that was collected as part of the interview process, including information on specific usage of the Toolkit and digital photographs.

## **CONCLUSIONS AND LESSONS LEARNED**

### ***Use of the Toolkit***

Some participants indicated they had used the Toolkit as a resource for developing similar evaluative frameworks, or health indicators, for communities located outside of Saskatchewan. The Saskatchewan participants had used the material as an information resource to develop project proposals. One participant stated:

*"... we are going to be doing the beginnings of a community health plan, and this certainly is going to be on the table. We are certainly going to be referring to the indicators..."*

Participants tended to make less use of the program logic models in the Toolkit, but the responses from those who had used this material suggest that the logic models can be used both as a model to develop community health and wellness programs, and as a resource in understanding the activities and goals of specific community-based programs.

The three non-Saskatchewan participants noted that some of the domains of the Community Health and Wellness Framework resonated with their work in their own communities (Healthy Lifestyles, Food Security, Economic Viability and Environment). Two domains and associated indicators that were seen as less applicable to



other communities were Culture & Identity and Services & Infrastructure.

A general concern of some participants was related to some uncertainty about how to use the Toolkit, which prompted the suggestion that an orientation to, and demonstration of, the use of the Toolkit would have been helpful.

Several participants had used the Toolkit as a resource for collective discussion with community members and organizational representatives on development of community health indicators relevant to their region or communities. As one noted:

*"... the Indicators Toolkit saved [the Health Directors], like, hours of time.... It was a place to start, and they looked at the indicator categories within each domain to try and get an understanding of what that domain meant and whether or not it was relevant to their experience."*

### **Format and Design of the Toolkit**

Participants commended the way in which the Toolkit was organized and commented that the information was presented in an accessible way. The design of the Community Health and Wellness Framework, the inclusion of diagrammatic representation of the framework, and reference to relevant statistics and alternate information sources were seen as positive aspects of the Toolkit.

Problematic aspects included areas where the Framework lacked community-level data or where measuring certain indicators would prove to be difficult in their communities or organizations. The paper format of the Toolkit was more easily accessed than the CD format, primarily due to technical difficulties in accessing some of the websites via the CD format. Suggestions were offered to make the CD more user-friendly, so that movement between sections of the Toolkit would be more convenient.

### **Further Dissemination of the Toolkit**

Five of the eight participants had either introduced other groups to portions of the Toolkit or had informed other groups of the existence of the Toolkit. All participants expressed interest in knowing how other communities or organizations

have made use of the Toolkit. They were particularly interested in how others might have used the material to achieve ends parallel to their own, both in terms of developing community-specific indicators and in the development of proposals for program funding.

Our findings suggest that recipients have successfully utilized aspects of the Toolkit, and in some cases have done so in spite of the fact that the Toolkit was developed for use by Saskatchewan's First Nations and northern and remote communities. The Community Health and Wellness Framework domains and indicators appear to not only resonate with some communities outside Saskatchewan but may also succeed in facilitating discussions to identify further health and wellness concerns that might promote the creation of additional indicators. In light of this, we should seek to further investigate why these additional domains were developed and consider their inclusion in subsequent revisions to the Toolkit.

The suggestions regarding the potential benefits of offering orientation sessions or workshops to assist recipient communities or groups in using the Toolkit highlights the importance of further training that could be implemented to assist users in applying the Toolkit with their specific communities.

The mapping component of the analysis proved useful. It provided a mechanism for evaluating the distribution of the Toolkit and thus judging the success of our knowledge translation efforts. In addition, it served as a KT tool in its own right, acting as a medium for distributing information on its potential uses.

As an evaluative tool, the integrated map readily revealed that the spatial range of the Toolkit's adoption extended far beyond the original target communities. Likewise, analysis of the temporal pattern of uptake indicated that adoption did not follow a simple nearest-neighbour pattern with earliest implementation by those closest to the source. Rather, other, more complex processes appear to have been at play. Both of these results suggest that further analysis of the social network of adoption could help increase uptake and identify areas for expanding KT efforts beyond those which we have already pursued.

## **LESSONS LEARNED**

- The Toolkit has some applicability to other communities outside northern and remote Saskatchewan communities.
- Greater use of the Toolkit could be facilitated by providing training sessions on its potential use.
- The mapping approach is useful for evaluating distribution and acts as a KT tool since it provides information about the different ways in which the Toolkit can be used.
- Further analysis of the social network of adoption would help to tailor the KT activities to other communities and organizations.





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## FURTHER RESOURCES

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# 15.

## Evaluation

### of an Online Discussion Forum to Support Child Care Training Activities

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SASKATCHEWAN POPULATION HEALTH AND EVALUATION RESEARCH UNIT

## ABSTRACT

The Centre de liaison sur l'intervention et la prévention psychosociales (CLIPP) organized a train-the-trainer program to increase awareness of child abuse among child care providers. Following the program, the facilitators were expected to transfer the knowledge they acquired to their respective regions. An online discussion forum was created to provide additional support for the preparation and delivery of these training activities. The centre implemented an online quantitative survey followed by a number of semi-structured qualitative interviews study to evaluate the success of the forum and the factors influencing participation.

The results revealed a relatively low rate of participation in the discussion forum but offered useful lessons for other online communities of practice as a strategy to support knowledge transfer. The findings underscored the importance of evaluating the needs of the target population before trying to establish a virtual community of practice. The form that a community of practice takes must correspond to its members' social context (e.g. technical skills and available time) and attention should be paid to choosing an appropriate technology.

(See Briand-Lamarche and Dagenais on pages 61-64 for another case on this project.)



- ***An online discussion forum was developed to support trainers who were delivering a program using a train-the-trainer model.***
- ***An evaluation of the effectiveness of the online forum was conducted using mixed methods: an online survey that gathered both quantitative and qualitative data, followed by qualitative interviews.***

## INTRODUCTION

The Centre de liaison sur l'intervention et la prévention psychosociales in Montréal, Québec, developed The Action in Childcare Settings training program to increase awareness among child care providers of the importance of early detection of child abuse and to give them the tools to detect it.

In Quebec, 372 people in 165 home child care coordinating offices took the train-the-trainer program. Following the program, the trained trainers were expected to transfer the knowledge they had acquired to their respective regions. An online discussion forum was created to provide additional support for the delivery of these training activities by providing the facilitators with a tool for exchanging information and helping one another.

## METHODS AND STRATEGIES

### ***Establishment of an Online Discussion Forum***

An online discussion forum constitutes a type of community of practice,<sup>1</sup> a group of people who share a profession or area of expertise and who meet to discuss, share information and learn from one another. Virtual communities of practice use web-based technologies as a primary means of interaction<sup>2</sup>

making communication more accessible and appropriate for geographically-dispersed members. An online forum appeared to be an ideal KT strategy because the child care providers were dispersed throughout Québec.

The discussion forum was launched in April 2008. It was created using the phpBB<sup>3</sup> forum platform, which is free of charge. A wide variety of layouts (graphs, images and other) are available, and the forum can be built in several languages. Some basic knowledge of how to create a website is necessary. Members can access a variety of subjects and postings can take various forms (e.g. questions, comments, presentations, answers). An example of the forum's interface is shown in Figure 1 (the names and the posts were changed to preserve confidentiality).

The objectives of the forum were to help the facilitators gain new knowledge and skills, share training experiences, exchange relevant documents and receive updates on child abuse issues. The forum was also intended to provide a forum for participants to collectively address any issues encountered during training activities or interventions.

A number of factors were identified in the literature as likely to increase the success of a discussion forum, and these were taken into consideration when the forum was established. They

included: technical and organizational support, the quality of the animation, interest and a sense of belonging among members.

Documents were sent to members to remind them of the benefits of participation, to foster a sense of belonging and to promote member interest in the forum.<sup>1</sup> In addition, a letter was sent to the heads of the child care coordinating offices asking them to encourage forum participation.<sup>1</sup>

### **Evaluation of the Discussion Forum**

The following year, the Centre de liaison sur l'intervention et la prévention psychosociales implemented a study to evaluate the success of the discussion forum as a strategy to support knowledge transfer.

An online survey was used to measure and evaluate the level of activity on the forum (e.g. number of registrations, time spent per week on the discussion forum, number of postings and number of threads). Participants in the study were also invited to comment on whether or not the forum had achieved its objectives.<sup>1</sup>

Follow-up interviews were used to obtain more detailed information about the survey results and to identify any other factors that might have had an impact.

The mixed methods approach provided a more precise assessment of the level of success achieved as well as a detailed explanation of the reasons for the outcome. Of the 112 members registered with the discussion forum, 48 responded to the survey and 17 of these people were interviewed.

### **CONCLUSIONS AND LESSONS LEARNED**

The evaluation determined that the online discussion forum had a low success rate. The forum members participated very little and considered that none of the forum's objectives had been met. Nonetheless, participants seemed to have a good understanding of the benefits of the discussion forum, and they appreciated the support of the forum's moderators. Moreover participants, like their peers and supervisors, acknowledged the importance and relevance of the issue addressed by the discussion forum.

The literature on KT emphasizes the importance of taking into account the context in which a program is implemented and

identifying the needs of the target audience.<sup>4,5</sup> However, the results from this evaluation suggest that the success factors identified in the literature are necessary but not sufficient for the implementation of an effective discussion forum. Three other significant factors may explain the limited success reported by this evaluation:

1. First among these is lack of time. The members of the discussion forum reported that they did not have enough time to discuss their experiences via the forum. They also seem to have received little encouragement to participate from the organizations they work for.
2. Second, participants already had access to a wide array of means other than the forum to help them organize the training. Contrary to what the discussion forum allowed them to do, they stated that they preferred face-to-face encounters and opportunities to tackle more than one theme at a time.
3. Lastly, participants reported that they were unaccustomed to using computers and not at ease with this means of communication.

The Centre's experience with an online discussion forum provides some useful lessons for maximizing the effectiveness of future online KT strategies.

It is important to evaluate the needs of the target population before attempting to implement a knowledge transfer strategy. Organizers need to make sure that no other tools already exist and that a community of practice would provide added value. Only once relevance has been confirmed can the establishment of a virtual community of practice be considered as an effective support strategy.

The KT strategy must correspond to its members' social context, and it is necessary to understand their preferences. For example, the virtual community should fit their schedule and use an appropriate technological medium.

There are multiple options for online KT, and attention should be paid to choosing the most appropriate method. For example, a blog helps users to acquire new knowledge at their own convenience without having to assist in long discussions between members. Videoconferencing, on the other hand, occurs in real time but lets users talk face to face, thereby fostering a stronger sense of trust.

### **LESSONS LEARNED**



- A mixed methods approach to evaluation provides a more precise assessment of the level of success achieved, as well as a detailed explanation of reasons for these outcomes.
- It is important to evaluate the needs of the target population before trying to establish a virtual community of practice. Ongoing evaluation of KT strategies ensures quality and continuous program improvement.
- The form that a community of practice takes must correspond to the social context of its members.

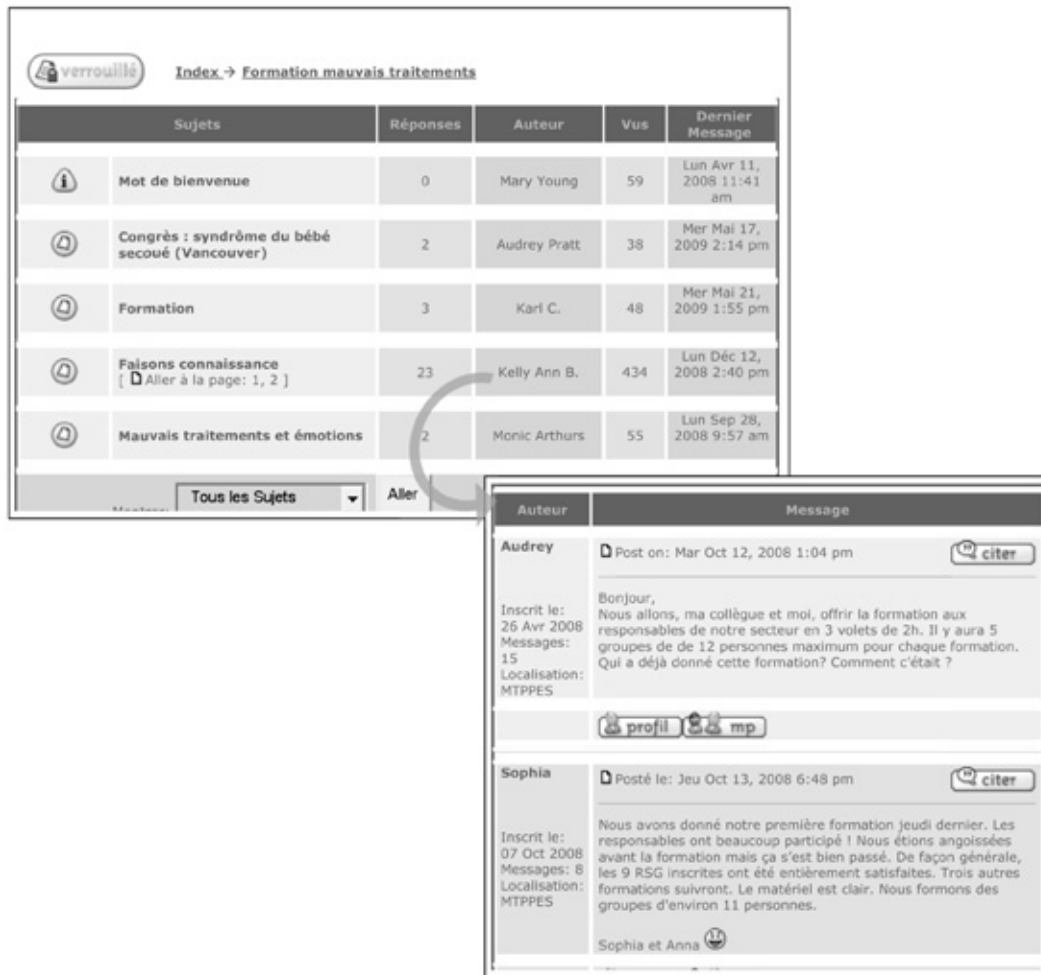


Figure 1 : Screen shots from the discussion forum (names and posts changed to preserve confidentiality)

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