



**Knowledge
Transfer:
Raising the
Stakes for
System
Change**

**Proceedings from the
Research Transfer
Network of Alberta
2007 Conference**

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**Knowing is not enough–
we must apply.**

**Willing is not enough –
we must do.**

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Knowledge Transfer: Raising the Stakes for System Change

The 2007 RTNA Conference, Knowledge Transfer: Raising the Stakes for System Change, marked the 5th anniversary of the Research Transfer Network of Alberta and the second conference since the Network's inauguration in Calgary in 2002. This conference is the start of a series of planned opportunities for Network members to come together over the next five years to continue to build a culture of participation, networking, open dialogue and mentorship in support of an overall vision of a health system where research or knowledge transfer is understood, valued and optimized.

The objective of this 2007 conference was to promote the use of evidence in policy and practice decisions in health and health care and to strengthen the Research Transfer Network of Alberta. Conference delegates were provided with opportunities to learn about knowledge transfer from outstanding speakers who took them beyond the basics of research and knowledge transfer and shared their firsthand experiences of putting knowledge transfer into action. Delegates were able to learn from each other by making connections across a wide variety of disciplines and perspectives on knowledge transfer. Program themes addressed were:

- The need for system change;
- System support and what organizations look like when they practice this way;
- Tools and strategies for thinking creatively; and,
- The realities of knowledge transfer – ethics, politics and consumer involvement.

Exploring the Theme – Raising the Stakes for System Change

The conference opened on the evening of Monday, October 1st, 2007 with a keynote address by Lorne Taylor, Principal of Taylor Consulting. Through his research in the field of cross-cultural psychology, Dr. Taylor has worked with indigenous cultures around the world. In the late 1990s he was the Alberta Minister of Science and Technology, then the Minister of Innovation and Science. The Ingenuity Fund was established under his ministry in support of science and engineering research. Dr. Taylor is the founding Director of World Relief Canada and Chair of the Alberta Water Research Institute. With his extensive experience in both the academic and political arena, Dr. Taylor is able to bring a unique perspective to the knowledge transfer table. His presentation, Evidence Informed Public Policy?, provided invaluable insights into why research results usually have little impact on public policy, and how we should and can change this by addressing how to generate ideas that will influence system change.

His consultative work with the Alberta Mental Health Board (AMHB) in the development of a mental health plan and research agenda provided an excellent framework for demonstrating how a strategic process and approach can be used to effectively influence the system at a public policy level. The AMHB effort was successful not only in supporting an ongoing, collaborative and transparent effort, but also at achieving consensus on its research priorities and business plan among a group representing several competing interests. The Alberta Mental Health Board also gained acceptance and support at a public policy level for its plans moving forward. Dr. Taylor outlined the keys to success as a strong understanding of the political system, its ideology and context; an absolutely transparent and clear process; an understanding of long term goals; relationship building and trust; and an awareness that this all takes time.

Key learnings:

- Generate ideas, not data. Politicians need to know ideas and the ideas have to be a compilation of a number of different studies. Present the general sense coming out of the research and indicate what needs to be done.
- You cannot isolate issues. Address the larger context.
- Use a one-pager with three sentences on the problem; two paragraphs on the research knowledge and ideas; and one last paragraph presenting the solution.
- The reward system in the academic world needs to change to better recognize the value and impact of applied research. Governments can drive this agenda with the targeted allocation of money and supporting collaborations between scientists and practice.
- What the science and the public policy decision maker communities see as important varies, and their differing values, skill sets, knowledge, culture and vocabulary all have an impact.
- A politician will make decisions within the context of a political ideology. You do not have to agree with that ideology but you do need to understand it clearly if you want to influence decisions.
- The government is often searching for an agenda. Take advantage of these opportunities to step in and present an alternative.
- The process must be absolutely transparent. Decision makers need to know that they are not dealing with a special interest group agenda that could alienate constituents.
- Public outreach, consultation and collaboration are all necessary and all take time.
- Initial success needs to be demonstrated. Provide a solid research business plan, with well-established priorities and funding, and a clear understanding of long term goals.
- Evidence must inform public policy. It needs to be about making a difference.
- Knowledge brokering needs to be about relationships first and foremost. The political process is all about relationship building. Politicians want to be comfortable knowing you would make good decisions based on the needs of their constituents.
- The marketplace will ensure that the best evidence succeeds, not the best group at making sure their research is translated. When both practitioners and regional people are involved in a collaborative way, it becomes a marketplace decision.

The Need for System Change

Alison Kitson set the stage for Day 1 of the RTNA Conference with her keynote address, The Need for System Change: Knowing what game you are playing and how to increase your chance of winning. Dr. Kitson is a Supernumerary Fellow of Green College, University of Oxford, and an Honorary Professor at the Universities of Leicester, Ulster and City University in the United Kingdom. Her research and academic interests center on knowledge translation and clinical leadership, specifically innovation and evidence-informed practice within the context and culture of where the innovation is happening. Or, as Dr. Kitson suggests, “getting the wisdom of practitioners into practice sooner rather than later”. Through the analogy of a ballroom dance floor, Alison Kitson vividly described how to take the chance out of using evidence to address big systemic issues.

The fact that there has been such a huge increase in practice initiatives around knowledge translation but still such a poor uptake of clinical guidelines does suggest that knowledge transfer is necessary, but not sufficient. Dr. Kitson proposed that we need different mental models and ways of understanding the process. The system-as-machine metaphor is not helpful. Effective systems move between the concepts of machine and organism. She described the innovation journey as a non-linear, dynamic process that is not stable or predictable, but does manage to achieve equilibrium. Launching, learning, leading through it, relationship building and developing the right infrastructure are principles all operating within the process – all of which were aptly illustrated through the ballroom analogy. Dr. Kitson described the types of leadership roles involved – the champion, the mentor, the executive leader and the critic – all critical to the process. Her presentation emphasized how successful adoption of change in any system is a function of the level of local autonomy of the individual, team or unit and their ability to influence their external environment. Dr. Kitson concluded with the suggestion that effective health care is about liberating – opening things up through transparency and dialogue. And, as she suggested, “We need to move all of this up to the dance floor. But first we need to know what language to use”.

Key Learnings:

- The concepts of personal mastery; creating mental models to check assumptions; coming together with a shared vision of what we want to achieve in our broad policies; and team building should all be accepted and applied. These are four relatively simple concepts, yet the profound challenge of understanding them is “breathtaking.”
- Ideas need a shock from either inside or outside the system to ignite them and get them up into consciousness. Scan the policy system, see the next shock coming in and galvanize it.
- The development phase around innovation is characterized by a crazy proliferation of ideas, setbacks, changing of goalposts, negotiation and the movement of people. Be ready for all of this and secure management support. Build local alliances as well as alliances across the system.
- The innovation process is a divergent to convergent one. It ranges from out-of-the-box, creative experimentation with far too many ideas to a focusing down. Divergent thinkers are helpful at the start, with others who can be relied upon to finish the job.
- There are four types of leadership roles in innovation: the champion is the innovator or broker; the mentor is the facilitator or supporter who understands the bigger picture; the executive leader unblocks obstacle; and the critic provides reflection on the other side of things.
- To achieve equilibrium, enabling and empowering personal mastery must be balanced with an assessment of what that does to the boundaries, controls and rules that operate within the system.
- The external facilitator’s role is to move people from where they are presently to where they want to be in the future. The facilitator must work with the group to create a shared experience through negotiating the role, creating the process, making implicit assumptions explicit, and creating an infrastructure to maintain and develop it.
- A systems approach to knowledge transfer is about recognizing and utilizing human interactions and relationships, and enabling individuals to engage in the change for which they will be responsible.
- Address the mental maps of the medical team to enable change at the patient or nurse level. Experience over the last 20 years in the knowledge transfer field shows that this is still the ‘elephant in the room’. We are still constrained by systems and the hierarchical processes of decision making and this is antithetical to the way we need to practice health care.

What Does An Organization Look Like That Practices This Way?

Alison Kitson's presentation on the need for system change was followed by a panel presentation on knowledge transfer that offered differing perspectives from a variety of organizations and disciplines. Each presentation illustrated the importance of context and how, in order for knowledge transfer to be successful, it is important to embrace complexity, allow time for the development of relationships and imbed knowledge transfer processes into organizational structures.

1. Working with the elephant in the room: Towards evidence-informed practice in health care organizations

Cathie Scott, Director of the Knowledge into Action Department (K2A) of the Calgary Health Region, described the work of K2A in the development of a coordinated approach to evidence-informed decision making across the region. An environmental scan on the state of knowledge utilization activity within the Calgary Health Region identified a strong region-wide commitment to increasing the use of evidence, but also brought to light the fact that many innovative initiatives were underway yet little about them was known within and across the region. These findings highlighted a need for better communication and coordination of resources and knowledge, as well as a need for facilitating the adaptation of policies for application across different contexts.

In an effort to better coordinate their efforts and imbed knowledge transfer processes into their organizational structures, the Calgary Health Region has developed competency guidelines focussed on career succession, recognition and appreciation, and professional and personal development. The Integrated Planning and Evaluation Process (IPEP) provides an overarching framework for evaluation that can be used region wide. Podcasting, digital storytelling and seminars are all used to share evidence more effectively across the region. Personnel are regularly sent to the SEARCH Canada program to learn how to make better use of evidence in practice, and the Calgary Health Region is constantly striving to provide more support to allow these SEARCHers to continue to use what they have learned to build capacity within others. Dr. Scott's presentation emphasized the importance of relationships and suggested how, in knowledge transfer and exchange endeavours, this relationship issue can be the 'elephant in the room'.

Key Learnings:

- Research evidence is rarely sufficient to inform health policy and decision making. More and more, evidence is being defined quite broadly to take into account local context and evaluation. Most often we prefer to go to other people to get the information we need. Context, evidence and facilitation all influence research.
- There is a need for strong leadership and support from the top, and more interaction and collaboration between policy makers and researchers.
- Be strategic around making links between the research we are doing and potential benefits.
- There is a role within health regions for supporting the asking of questions and, from there, supporting the acquisition and assessment of the evidence that does exist. Build structures to support learning through research and practice – enhancing capacity, connection and coordination.
- Throughout the whole process, learn about what works and how it works through evaluation.
- Creating and maintaining relationships is the invisible work being done in health regions. It needs to be made more visible. We are all part of the system and we all need to be engaged.
- Need for relevance; risk taking or new ways of working together and being supported to do so; a readiness for change; a change to the reward and incentive systems both in universities and in health care systems; and an investment in relationships and engaging in knowledge co-production.

2. A Building Block for KT: The Need To Know Team Model in Manitoba

In this presentation, Patricia Martens, the Director of the Manitoba Centre for Health Policy and Associate Professor in the Faculty of Medicine's Department of Community Health Sciences at the University of Manitoba, described the work of The Need To Know Team; a collaborative research team of university academics and planners from the Manitoba regional health authorities and Manitoba Health. The Need To Know Team evolved from an increasing realization within the Centre that there was a disconnect between the products they were creating and their use. Through facilitated roundtable discussions, researchers were able to see how their findings often did not make sense in the field and The Need To Know Team was created.

The model used by The Need to Know Team supports the co-creation of new knowledge to ensure the development of relevant capacity, and the accessibility and applicability of findings. The whole process is evaluated, documented and shared to provide the context layered on to the research so that everyone can see what worked well. The aim is to get at the basis of change – high user involvement with research and really good research to go with it. Or, as Dr. Martens expressed it, “researchers who know what they are doing and users who understand what they need.” As she so aptly summed up the process, “It can be a little uncomfortable at times, but it is a lot of fun. You really get where the action is – at the intersection between users, researchers and departments of health.”

Key Learnings:

- Just because you shout out the message, does not mean it will be picked up.
- The team is more successful than the individual parts – the wisdom of crowds.
- Working in teams gets research making sense a lot better than if you are sitting at a desk doing research on your own. The users know what they need before the researchers are even willing to investigate in any particular area.
- By ensuring there is a mix of people at the table you can see the project from different perspectives and come out with a viable plan. When people are asking the questions and waiting for the answers, knowledge transfer will happen because they are part of the process. Facilitate user involvement from start to finish.
- To develop these collaborative relationships takes a lot of time and money but it does translate. It takes trust building over at least a year to get a team going.
- The degree of user involvement is directly related to the strength and relevance of the research.
- Research must be timely, population based, accessible, and disseminated.
- High tech is not as important as personal relationships.
- Evidence is made of stories. Use evidence-based storytelling to inform evidence-informed decision making.

3. Knowledge to Practice “K2P”: Creating the culture – one organization’s journey

Nancy Lefebvre, the Senior Vice-President of Knowledge and Practice at Saint Elizabeth Health Care (SEHC) in Ontario, described the strategies she employed to create a cultural change within Saint Elizabeth’s to move it from an organization that was opinion based to one that used evidence at the table when making decisions. As Ms. Lefebvre suggested in her presentation, today’s health care environment should be seen as an enabler to knowledge transfer. There is an increased body of knowledge available; technological advancements have brought evidence and information closer to home for the client; and a large consumer movement is demanding information and access anytime, anywhere. All of this is pushing us to move forward in the knowledge transfer arena both clinically and in management to create a culture with a climate of critical enquiry where questions are encouraged, the status quo is challenged, and mistakes are viewed as learning opportunities.

At Saint Elizabeth’s, they used Maureen Dobbins’ Framework to lead them through an organizational assessment to the collection of data and information and on through to evaluation. A vision evolved regarding the desired future state and time was spent with staff to establish a language that would make the vision meaningful for everyone. Many strategies were utilized to advance the agenda such as mentorship, preceptorship, communities of practice, structures and supports for accessing literature, a business intelligence unit, documentation tools, a decision-making framework and guidelines, evidence informed policies with rewards and recognition systems, internal research days, employee opinion surveys, an online educational program for clients, and a formal launch ceremony. As Ms Lefebvre summed it up, “It is an infectious process. It might not go the way you thought it would go. It can be a bit chaotic and you need to be relaxed. You will arrive at the vision if you have created it.”

Key Learnings:

- Knowledge transfer is about context, culture and leadership.
- Using evidence must be a business imperative not a flavour of the day. It has to resonate with all of the staff in an organization.
- Avoid a rush to action but do not take too long in the planning phase.
- You need buy-in from the Board, the CEO and the senior team, then you can create strategic objectives. Measure from a performance perspective and evaluate as you go.
- Frontline managers are key enablers and role models. Need to understand what they need to know to enable them to reinforce the vision. Minimize the barriers and maximize the enablers.
- Find champions from within your organization. Bring them together and engage them in identifying others.
- Use applications at the bedside as soon as possible. If you can get it into the hands of the nurses right away, they can see the impact quickly.
- Needs to be capacity within the organization, such as an adequate technological infrastructure. You can jump to that first then pick up the other pieces later.
- It requires cheerleading to keep it at the forefront and a phenomenal amount of energy. You will need to re-energize your champions as you go

4. “A lot of evidence exists, but a lot of it isn’t used”

In this panel presentation, Ms Yates, who is responsible for corporate strategy, strategic intelligence and innovation at Farm Credit Canada (FCC), described a cultural transformation that was strategically implemented within FCC, and how, by enabling culture and creating process, evidence-based decision making can be fostered.

A 2003 study on employee engagement at Farm Credit Canada revealed that it was not a high performing organization. In response, a process of transformation was embarked upon through the intentional creation of a culture by design – a culture that would inspire engagement and high performance. A practice framework was created and instituted that incorporated concepts reflecting a delivery on promises; a committed sense of partnership, feedback and straight talk; curiosity, active seeking and listening; quick clean up and recovery; and, the acknowledgement of others and the celebration of success.

The key strategies used to develop and support this change included training sessions on committed listening and holding to account; cultural practice leaders and advisors; posters, toolkits, testimonials, newsletters; team meetings; corporate reward programs around recognition and appreciation; employee compensation; and, recruitment and retention strategies. As well, flash tests were done with customers and potential users to see if the knowledge was being used; if the information was relevant and needed; and if it was in a form that was useable for them.

Three kinds of communities of practice were supported around natural needs or knowledge gaps – Communities of Practice of experts in the field were established country wide; Communities of Excellence with key stakeholders from inside the organization; and Communities of Learning Exchange created organically among groups of individuals. These are self-directed groups with influence and some autonomy to execute plans or make recommendations. This strategic implementation of a culture change at Farm Credit Canada has resulted in better relationships; more open dialogue and increased employee engagement; and increased business success with record profitability.

Key Learnings:

- Most organizations have a culture by default. Without intention and design your organization will go to that path of least resistance. You have to change people’s beliefs in order to get significant change – create that ‘aha’ in how they work together.
- Need to examine your mental models and get off auto pilot. Be more present when you are having conversations and interactions so that you can be more effective.
- To create a positive outlook you need to shape your thinking and emotional responses. We all have blind spots. To get to the next level you need to be open to feedback and think of it as a gift, both the giving and receiving of it.
- Visible executive support is important. It has to be a way of being underlying everything, and it has to be connected to business results and linked to compensation. What gets measured gets done.
- Communities of Practice can be used to create a culture that supports information traveling sideways and back and forth, as well as up and down and down and up. This results in time saved and better customer service, and allows for a richer conversation.
- Strategic management processes allow for mapping the knowledge processes, embedding fact with collaboration throughout.
- Need to synthesize evidence broadly and learn from each other, but also need to fine tune the evidence so that it speaks to your own specific region.
- Need to be creative about how you create information. The magic is not so much in how much information you provide, but what you are doing to filter it.

Abstract Oral Presentations – Part 1

This first round of abstract oral presentations on the afternoon of Day 1 of the RTNA 2007 Conference focused on the effectiveness of a variety of knowledge transfer strategies.

1. Tailored messages for effective knowledge transfer: Results from Canada's first knowledge brokering trial

Paula Robeson presented the results of Canada's first knowledge brokering trial, led by Maureen Dobbins at McMaster University, to evaluate an innovative strategy in promoting evidence informed decision making in Canadian public health units. In response to the need for a national knowledge transfer strategy to support decision makers' use of high quality evidence in program planning and policy making, this randomized controlled trial looked at three interventions on physical activity and healthy body weight promotion among children and youth: access to an online registry of systematic reviews; registry access plus targeted messages; and, registry access, targeted messages and knowledge brokering. The results of this trial indicated that targeted messaging made the most difference as an effective strategy for promoting the uptake of evidence.

Although the study results did not show that knowledge brokering was the most successful tool for increasing the incorporation of evidence; and, even though there was no between-group difference on global outcomes, the qualitative results from this trial were very supportive. Participants valued the resources and perceived themselves to be increasing their use of evidence in practice. They formed networks that they felt were helpful in accessing, analyzing and interpreting evidence in practice. And, even though the public health units perceived themselves to be completely different from each other with no basis for comparison, the researchers found that there were far more similarities than differences, with only some adaptation required based on context.

Key Learnings:

- Evidence-informed decision making is slow.
- Time and timing is key.
- A year was not long enough to see any organizational changes that might have been related to the research use.
- The study tools did not measure the smaller changes in organizational capacity and cultural development. They only measured the end results, and did not get at some of the lower level policies and procedures

2. Building a workforce of health scientists skilled in knowledge translation, communication and partnership: The Sick Kids Knowledge Transfer Training© Course

In this presentation, Dr. Melanie Barwick, a Health Systems Scientist and the Scientific Director of Knowledge Translation at the Research Institute, The Hospital for Sick Children, described a knowledge transfer training program developed by and offered to scientists in the Child Health and Evaluative Sciences. The Sick Kids Knowledge Transfer Training Course aims to build a workforce of health scientists with knowledge and skills in knowledge translation and communication to increase the overall likelihood that they will be more active in ensuring that their discoveries are applied and have impact. Scientists from a range of disciplines and a variety of spaces both within and outside of the hospital were provided media training and assistance in building relationships with non-academic stakeholders. Conscious efforts were made to include people who were well placed to move information further throughout the organization. Many scientists took the course in response to funding requirements for knowledge translation plans. Project organizers took advantage of this and offered the course six weeks prior to the due dates on these grants.

At baseline the scientists were most comfortable with traditional avenues for sharing knowledge, but within six months they showed an improved level of comfort with other strategies such as policy briefings and media presentations. There was improvement in identifying who the non-academic stakeholders were who needed to be engaged; their comfort and satisfaction level in collaborating with them; and their understanding of the decision making process from other points of view. Perceived barriers related to the disconnect between academic expectations and knowledge translation activities were reduced. By engaging a senior level policy analyst to address the group, the scientists were able to see where and how they could make the greatest impact. They were taught how to re-write their findings in plain language text and discuss what they do in a more engaging way. This program effort does demonstrate that an increased understanding and change in attitude around knowledge translation can lead to changes in behaviour. The Hospital for Sick Children is now working on the creation of knowledge translation positions within a new learning institute currently under development.

Key Learnings:

- To bridge the gap between research and practice you need a workforce of scientists who know what they are talking about when it comes to knowledge translation.
- To change attitudes and behaviours, individuals need to have perceived behavioural control or decision latitude and autonomy in their jobs.
- It is helpful to have someone on board who knows the principles of adult education and how to put together an engaging curriculum.
- Participants wanted a presentation format that was more case-vignette focused and more interactive.
- Need to understand better what the applicability is for the basic scientist; what the basic knowledge translation principles might be that are universal and applicable regardless of where you sit on the science spectrum.

3. Time grants: Fostering evidence-based practice in rehabilitation by engaging clinical curiosity

A lack of time is always noted as one of the key barriers to evidence-based practice. This presentation by Mo Donald described a Time Grant Program that was implemented in the Calgary Health Region to provide clinical release time for frontline rehabilitation professionals through the use of relief staff in open positions within the department. Through these Time Grants, successful applicants are provided with the time they need to carry out projects addressing specific clinical issues. They are also provided with space; access to computers, databases and search engines; and mentorship support from program facilitators and clinical educators. A multidisciplinary, multilevel committee examines and selects proposals based on the quality of the proposal; the potential to build capacity; the ability to foster connections with academic organizations and other professionals outside the Calgary Health Region; and whether or not sufficient resources can be provided to make the project successful.

The Time Grants Program is a low-cost, high-benefit funding plan. Less than a .5 FTE was able to support seven projects. The projects have contributed directly to quality improvement in rehabilitation by prompting changes in the areas of patient care, and personal and professional growth and practice. Participants have experienced an added interest and challenge in their work life; increased work opportunities and enhanced roles; increased gratification through the provision of better patient care; and, the learning of new ideas and the application of new technologies. The completion rate is high and demand for the program has grown.

Key Learnings:

- Need champions within management to get a program like this going. It needs to be seen as an essential part of providing excellent patient care.
- The program has the money for replacement staff but not always the bodies to replace clinicians.
- Participants in the teams adapt and are willing to apply their findings, but getting the pooling effect outward to other teams at different sites is hard.
- Building links and partnerships between clinicians and academia is difficult especially when there are distance issues.
- Support is project dependent. When participants in different projects are at the same stage, you can do group education sessions in different topic areas such as literature reviewing and critical evaluation. The manuscript stage requires more one-on-one support.
- Matching up people on teams would be an effective strategy.
- Mentorship is very effective. You can educate the participants and then have them educate others, building knowledge and helping participants with their projects at the same time.

4. Developing knowledge translation strategies to enhance health services research capacity in a largely rural and remote British Columbia Health Authority

In this presentation, Jennifer Miller described a research capacity enhancement initiative within Interior Health, a largely rural and remote regional health authority in British Columbia. Because Interior Health covers such a large geographic area, many different community priorities exist. A strong need to increase the organizational capacity to do, use and apply research evidence was identified in the region. A key goal of the research capacity enhancement initiative was, therefore, to develop and evaluate knowledge translation strategies.

Funding from the Michael Smith Foundation for Health Research supported research facilitators within the health authority to promote decision-informed evidence making. Several strategies were applied including a series of research seminars, skills workshops and an annual research conference. Monthly brown bag lunch seminars highlight local and provincial research projects and programs, and allow participants an opportunity to learn and network. Teleconferencing is used and the research skills workshops are provided out in the region to allow access to participants in rural and remote communities. As in many of the other presentations at the conference, Ms Miller reported that time was a huge constraint. Health care professionals do not have protected time to do research; but, if you can link them up around specific topic areas with academics who do have protected time, you can create a win-win situation.

Key Learnings:

- Need to support decisions and decision makers. Evidence cannot come from or be pushed into or pulled from researchers and/or decision makers. Research must be co-produced.
- Participants can feel 'shell-shocked' by the intense, large volume of material presented in the research skills workshops. Need for more reflection on curriculum development and presentation.
- Increased awareness of the initiative has brought increased requests for participation. Need to plan how to manage this and prioritize it.

Abstract Oral Presentations – Part 2

This second round of abstract oral presentations highlighted projects designed to improve the effectiveness of research transfer and increase our capacity to do research.

1. The Alberta Context Tool: Development, psychometric evaluation and lessons learned

There is growing awareness and acceptance among researchers of the importance of context in research utilization, and the subsequent importance of research utilization to improved outcomes. There is little empirical evidence in support of these assumptions, however, as a valid and reliable instrument to measure the impact of organizational context on research utilization does not exist. In this presentation, Carole Estabrooks, Professor in the Faculty of Nursing at the University of Alberta and a Canada Research Chair, described a study to develop and validate a survey suite measuring contextual variables and research utilization behaviours in acute health care settings. The Alberta Context Tool (ACT) includes items on culture, leadership, evaluation, structural resources, social capital, information transfer mechanisms and organizational slack. Five different variations of the tool exist to better address different provider groups.

Pilot test results indicate that the Alberta Context Tool does address important issues around uptake of knowledge and changes in provider/system and patient/resident outcomes. It is a promising instrument for the three core concepts of evaluation, leadership and culture. As Dr. Estabrooks noted, success in identifying modifiable conditions will help us to earmark what can be changed. The Alberta Context Tool will be useful in helping us to link context to outcomes so that decision makers can see how they are doing and be able to compare their facilities to others. Psychometric testing on survey indices and scales is currently in progress.

Key Learnings:

- There is little empirical evidence to support the belief that context is an important factor in successful research utilization.
- To get good response rates from the decision makers, the survey had to be developed for completion within 20 minutes. Any new item construction had to be blended with very practical considerations.
- Piloting the tool in long term care was more challenging than in acute care. Many more revisions were required and it was difficult to maintain fidelity while making significant language changes.

2. Building evidence literacy capacity in a regional health authority: Bridging the gap between evidence and practice

Carolyn Trumper from the David Thompson Health Region and Christine Thompson from SEARCH Canada co-presented this abstract on a project aimed at building evidence literacy in a group of health care practitioners through the use of a community of learning model and training in eLiteracy through a computer desktop. This project represents an excellent example of a ground-up, capacity building approach to KT, as well as how the right timing can create a unique opportunity to enhance knowledge. The project was driven by a group of respiratory health technicians in the David Thompson Health Region who approached a SEARCH Canada faculty member from Red Deer College to help them with their journal clubs. At the same time, a curriculum initiative was underway within SEARCH Canada to enhance evidence literacy skills using learning modules on a computer desktop. Red Deer College was interested in both developing an applied research program and in contributing to community education; the SEARCH Canada eLiteracy program provided an excellent tool for meeting the practitioners' needs; and, a research project was born.

The project examined the current level of knowledge and use of evidence in practice within the group; evaluated a curriculum and process; and determined the impact of such a program on building evidence literacy capacity. An Advisory Team was created representing all of the participating organizations and included senior management, physicians and researchers. Informal staff leaders were selected and trained as team leads to provide mentorship and guidance to the rest of the staff. The practitioners received competency credits from Red Deer College for their participation in the program. Preliminary project results show a strong increase in knowledge of evidence-based practice concepts and practitioner opinions in support of the need for improvement in evidence-based health practice overall. There has been an impact on treatment, and a ripple effect across the region aided by the fact that respiratory technicians work throughout the region in all care settings.

Challenges to the project included practitioner workload; putting research into practice; curriculum completion in context; collaboration and communication; and learning on the fly. Once again, time was identified as a perceived barrier to evidence-based health practice, as well as the lack of support from colleagues in practice and the issue of personal procrastination. The curriculum model was developed for use in a multitude of disciplines and these preliminary results strongly support that it can and should be used more broadly.

Key Learnings:

- The involvement of students was critical. They were given course credit for their work, so they kept the process moving.
- A chart was developed capturing the key functions around organizational change, project management, applied research and workplace learning. This helped to define everyone's role.
- A history of collaboration among the partners was crucial to the success of the project. The ability of the facilitators to connect people and get support was critical.
- Trust from department managers was important. There was a lot of risk involved, and a lot of overtime.
- Flexibility was key as a lot of adjustments had to be made as the program developed.
- A focus on issues with an impact in practice settings is important. Stay true to what the practitioners want.

3. Educational intervention to improve primary health care management of arthritis

In this abstract oral presentation, Lois Flakstad described a project led by Dr. Mary Bell of Sunnybrook Health Sciences Centre in Toronto to implement and evaluate a community based educational program to improve the diagnosis and treatment of arthritis in primary health care. An analysis of effective rehabilitation interventions for arthritis was undertaken and the information was put into lay words for presentation in a workshop format, in educational toolkits for patients and providers, and through a variety of reinforcement activities including media exposure. The program aimed to improve and increase the effectiveness of self-management strategies for arthritis. It also aimed to address the need to improve the knowledge exchange between researchers, clinicians and the general public; to facilitate informed decision making by patients; and increase their access to and use of clinical practice guidelines. Workshop participants were encouraged to go on for further training as workshop facilitators. Participants were surveyed and their knowledge acquisition by depth and time showed positive results. They perceived that their self-management skills would improve; they would be able to access resources; and they would be better able to educate the public. Three-months post-workshop, the participants were still sharing information and practicing better self-management.

Key Learnings:

- Interactive workshops resulted in a substantial improvement compared to didactic sessions alone.
- Trained lay health workers are a promising resource for promoting effective interventions and improving outcomes.
- The use of patient opinion leaders combined with performance feedback accelerates the adoption of effective therapies.
- Mass media communication can produce significant changes.

Lessons (and reflections) from yesterday

On Wednesday morning, October 3rd, 2007, Judy Birdsell, Principal of On Management Ltd., opened Day 2 of the RTNA 2007 Conference with a synopsis of the key messages thus far on Knowledge Transfer: Raising the Stakes for System Change. Dr. Birdsell outlined three main lessons underlying the presentations and some reflections on where we are headed over the next ten years.

Lesson 1: Knowledge Transfer is necessary, but not sufficient.

We need quality improvement, innovation, patient safety, professional education and development, patient centred care, situational assessment, and cultural change too.

Lesson 2: It's the ingredients, not the recipe.

The PARIHS Framework, Dobbins Framework and the Ottawa Model have all been described as recipes of a sort for knowledge transfer. A recipe does provide a helpful framework but we can all use the same recipe and get different results. It is the ingredients that really matter – the raw materials that we have at our disposal to work with such as:

- The engagement of stakeholders (the people who will use the information);
- The consideration of multiple levels (individual, team, unit);
- Relationships (networking);
- Roles of various actors (knowledge brokers, facilitators, policy makers);
- The base state (culture, context, influences);
- Interventions or attempts to influence the base state (time grants, knowledge brokers, targeted messages, joint ventures);
- Understanding the between (between similar bits of information, people in different contexts, the inside and the outside);
- Relevance (local data, business imperative, political agenda);
- Applied and basic research; and,
- Skills for knowledge exchange (plain language, media training, active listening).

Lesson 3: Need to create not only the recipe that fits, but the whole menu.

How do we assess our situation accurately to identify the ingredients that would be most helpful? How do we determine the fit between what is available and what our system or base state looks like?

There is much to learn from cross-sectoral work. Each of us needs to get better at how to bring in knowledge and evidence from other places and make it relevant for our contexts. As well, the academic-practice boundaries need more attention. Significant regional resources are going into knowledge transfer strategies to seed innovation in this area and this could cause more tension between the academics and the practitioners.

Tools and Strategies for Thinking Creatively

This second panel presentation highlighted three creative knowledge transfer projects going on in Canada that link research to practice.

1. Evidence and policy in long term care: Building a bridge with knowledge brokering

In this first presentation, Cynthia Johnson, Professional Practice Leader in Home Living at Capital Health, described a demonstration project in long term care that tests the premise that knowledge brokering is an effective way to support evidence-based decision making in health services delivery. Decision makers from long term care, the regional health authority and the provincial government were engaged collaboratively with researchers from the Universities of Alberta and Calgary in the implementation of the Resident Assessment Instrument (RAI).

Plans were underway to mandate the RAI for use in continuing care in Alberta. This created an opportunity to have an impact on how the data from this tool would be used to maximize its potential to improve care. The intent of the project was two-fold – create an awareness among researchers around the mutual opportunities the data from the instrument would create, and build connections with the researchers so that there would be an interest and relationship there when the data became available.

The group created and utilized a monthly electronic newsletter, workshops, breakfast education sessions, a one-day symposium and bi-annual meetings as strategies for collaboration and knowledge brokering. Members have participated together in brown bag lunches, connected with researchers in other provinces and facilitated connection for them here in Alberta. They are currently engaged in a literature review on home care tools and the Resident Assessment Instrument to see if the quality indicators built into the RAI are valid, reliable and useful in practice.

Key Learnings:

- A prior history together within the team is important to success. It helps to ensure that everyone is committed and stays committed, and increases the networking capability of the group.
- The amount of time required for this project has been far greater than the initial estimate. The official in-kind support is not adequate.
- The realities of work and other priorities often push the project to the back burner. It is difficult to dedicate a chunk of time to the project.
- Each group involved represents a unique culture with different interests and timelines. Even within their own groups they have unique practices and cultures. Currency and meaning is different especially between the academic world and the practice environment.
- Researchers have challenges too. They are working across different university ethics requirements, with health regions that each have their own approval processes, different streams of care, different tools, and different policies and procedures.
- Everyone had a different interpretation of what knowledge brokering meant.
- Scheduling has been difficult. There have been changes around jobs and more partners have been added in. There have been changes within the funding agency as well. Therefore, it is important to be flexible, strategic, and focused. Communication is a top priority.
- You have to work at networks. The bigger the network gets, the more strategic you need to be.
- Do not be intimidated by researchers. Be persistent and clear about your needs and wants. Acknowledge the challenges they have. As decision makers we are part of the problem too.

2. PEAK project: Everyday creativity in knowledge brokering

Kari Simonson, Clinical Coordinator at the Canmore Hospital, provided an overview of another knowledge brokering demonstration project, the PEAK (Practice Enhancement Achieved Through Knowledge) Project. This project is aimed at empowering health care workers to become partners in the improvement of their own work through successful innovation and the adoption of innovation. The PEAK model starts when a clinician recognizes that there is something they need to know. A knowledge broker helps to formulate a practice question and explore solutions based on evidence. The evidence is brought forward, reviewed by the team, and any changes to practice are discussed and agreed upon. The knowledge broker highlights relevant evidence, charts practice, coordinates evaluation planning, and provides training and mentoring in searching for and critiquing evidence.

The PEAK model is invaluable for adapting policies developed within urban settings to a rural context. Frontline rural clinicians need to be able to look at different kinds of evidence related to their own particular context. The process requires engagement with the clinical staff, and a recognition that patients are partners and decision makers in their own care. In a rural setting there is often not a lot of access to information through computers or university library services. A knowledge broker is able to link the decision makers with the researchers so that they are better able to understand and influence each other. The knowledge broker brings people and knowledge together for mutual benefit in support of a culture of evidence based decision making.

Key Learnings:

- The process does not happen in neat little steps. It is not linear but equilibrium can be established.
- It requires a culture with a high degree of trust and accountability, and a bias towards teamwork and shouldering the burden of improvement rather than blaming external factors.
- Knowledge brokering can happen within different roles. It should be a part of the work that we all do. To achieve big system change, knowledge brokering should be embedded at every level of an organization and within the language.
- The PARIHS Framework was a useful guideline..
- To successfully adapt and apply research in a small town, you need to consider a heightened accountability to people and resources. Listen closely to stakeholders to keep the ownership in their hands as much as possible. Facilitation is a very valuable skill.
- Senior management support is critical. It gives people permission to feel like they can take part and it helps with the physicians who are challenged to engage in the process.
- Provide backup for clinical staff so they can attend meetings.
- Allow staff to read at work.
- Develop awareness of experts, information sources and resource tool kits that you can use and share.
- Develop an education component for consistent staff training.
- You cannot communicate enough.
- Not every single question out of practice needs to go through the PEAK process.
- You can use Practice Circles to bring practitioners together to share stories. This leads to higher trust, exploration and shared understanding.
- Celebrate. Complexity can be overwhelming and it feels good to recognize what you have done.
- Do not be afraid to make mistakes. They are learning opportunities.

3. Until death do us part: Lessons from The Pallium Project

Michael Aherne is the Managing Director and Senior Consulting Principal of Responsive Strategies Inc. and the co-founder of The Pallium Project, a project that was formulated to improve the care of the dying irrespective of where they live. Project strategies are aimed at facilitating the coordination of scarce educational resources; collaboration amongst academic programs and community champions; communication to reduce the duplication of effort; and demonstrated improvements in access, quality and system capacity. A university-community engagement best practices approach was used, together with a population health orientation. The view of knowledge was both evidence based and social. Knowing is acquired in context, and is informed by beliefs, feelings and values. A community of practice approach, a project portfolio model, and practical definitions of access and quality guided the work.

A range of supportive knowledge development skill sets were brought in to augment the clinical care piece as well as a range of other experts who could help to package the knowledge in a way that would best meet audience needs. Modularized courseware, caregiver guides, home training manuals, multimedia and instructional resources and development framework toolkits were created to codify the norm. Audioconferences, podcasts, Just-in-Time Grand Rounds (face-to-face and telecast), and YouTube were all utilized as tools for knowledge transfer.

Key Learnings:

- You need to have a very clear end focus, and create the tools and resources to help people get things done.
- Effective knowledge transfer demands champions, intentionality, time and resources.
- There is no recipe. Each family and patient circumstance is different. Knowing is about sense making and needs to be done in context. It is always social.
- You can see where people are having challenges based on course topic demand. In this project, for example, units on caregiver burnout were always well attended.
- The delivery system is largely about cure whereas hospice palliative care is about healing. This sets up a huge dissonance and you need to work on re-culturing.
- Learn from what others are doing. Look at where people are doing good work locally and bring these resources in.
- Provide release time to senior practitioners to help with resource development.
- Communities of Practice are means, not ends. Use them as knowledge building communities. Many hands make lighter work; many minds create better outcomes.
- Patients and families are our collaborators.

The Realities of Knowledge Transfer

This third and final panel presentation explored the realities of knowledge transfer – how issues related to ethics, the politics of evidence and the involvement of consumers all need to be better addressed if we hope to successfully support a health care system that values knowledge transfer and evidence informed decision making and practice.

1. 'Citizen Science': Consumer engagement and knowledge transfer

Katarina Kovacs Burns started the panel off with a presentation on 'Citizen Science,' a framework for engagement that raises the standards of how we view patients or consumers by acknowledging that they have very key perspectives that can contribute to knowledge transfer. Citizen Science is a concept that was first developed in the 1920s and 30s within the environment and transportation sectors as a framework for engaging citizens on decisions impacting their lives. It involves public interest research, and looks at how practices evolve, are adapted and ultimately affect consumers. Dr. Burns recommended the inclusion of Citizen Science in any process around health care outcomes as it can contribute to a broader understanding of health care issues and needed solutions.

Using the Citizen Science model facilitates a two-way process whereby consumers provide evidence for knowledge transfer, and also receive and engage in knowledge transfer related to their own health care. By becoming part of the process, consumers take ownership for themselves and others. Not only does this improve health care safety and delivery, it also facilitates health care decision making. Supporting this model in health care requires and investment in time, energy and money into making consumers ready, accessible and available to be involved in research and knowledge transfer. As Dr. Burns suggested, decision makers, health care practitioners and consumers all need to be headed in the same direction in order to make knowledge transfer effective.

Key Learnings:

- Make consumers part of the solution by not making them part of the problem.
- It is more than involvement in a partnership. It is a commitment from all stakeholders at the table that creates something more meaningful for everyone.
- We often have to backtrack because we have not included consumers at the policy table. When consumers are engaged in the process, expectations and challenges are aligned and you can move on from there.
- Health professionals believe that they can represent both key stakeholders and consumers, but patients with lived experiences need to be included as well.
- Language can be a barrier. Evidence needs to be written in plain language for consumers to apply and/or adopt.

2. Ethics consideration in your knowledge transfer activities: Increasing the odds of success

In this presentation, Linda Barrett-Smith, Manager of Research Ethics Initiatives with the Alberta Heritage Foundation for Medical Research, discussed the social ownership of knowledge; the use of ethics as a way of understanding and examining how we treat each other and go about doing our business; ethical analysis in knowledge transfer; and the role of ethics in the policies and practices of environments that promote knowledge transfer. Ms Barrett-Smith described three ethics principles related to knowledge transfer – reciprocity or the mutuality of benefit; recognition or shared ownership; and utilization or the wider sharing and giving up control of knowledge. She also reviewed the concept of social shaping; valuing different kinds of knowledge including patient and clinical experience, and local context; the role of the community or the public; and the integration of ethical analysis in the knowledge transfer process.

Ms Barrett-Smith reflected on how the cost of applying knowledge can become unacceptably high compared to the benefit; and how priority setting is value laden and complex, and cannot be based on clinical criteria alone. Moral challenges can exist in the topic area or there can be implications to the knowledge being transferred. Both quantitative and qualitative methods need to be used when developing knowledge to ensure that what knowledge is there is transferred. Social-ethical reflection needs to be integrated within the whole process, and someone with ethics training needs to be involved. Lay perspectives should be considered, and objective information or research used to reconcile expert and lay perspectives. We need to pay attention to relationships and the cultural values that underpin how we do our work together. As Ms Barrett-Smith suggested, ethics can provide a level playing field to facilitate this discussion and raise awareness around new knowledge.

Key Learnings:

- More critical thinking and research is required to articulate the ethical frames in which we are presently doing knowledge transfer.
- Information provided to consumers should be evidence based, and consumers should be involved in shaping what questions are pursued and how the knowledge is applied. Researchers should really be addressing relevant questions for the end user.
- Organizations need to provide the infrastructure to ensure staff have the capacity to engage in knowledge transfer activities.
- A shift in power relations between knowledge workers and organizations requires the adoption of a new value set, and a role evolution from manager as controller to manager as coach or facilitator.
- Explicit and transparent policies of resource allocation is an ethics issue.

3. Evidence-informed decision making: What does it really 'look' like?

Maureen Dobbins is an Associate Professor in the School of Nursing at McMaster University and a career scientist for the Ontario Ministry of Health and Long-Term Care. In this presentation, Dr. Dobbins reviewed findings from recent studies evaluating knowledge transfer and discussed the issues inherent in evaluation. The study evaluations showed that the facilitators or significant predictors of knowledge use included the person's position in the organization and whether or not they had the autonomy or authority to make decisions; their confidence in their critical appraisal skills; and an organizational perception that research was relevant. Key barriers were limited access to research evidence, limited training, a lack of organizational support, and lack of time.

There are many aspects to consider when evaluating knowledge transfer and many different types of outcomes to consider from the transfer process. This could be changes in patient outcomes; changes in what practitioners are doing; changes in policy; and/or changes in organizational structure. A key aspect to evaluate is the impact on the stakeholders. Dr. Dobbins said we need to do a better job of getting them on board, assessing their needs and developing interventions together keeping their needs in mind. To achieve this, tools are needed to measure resistance. We need to understand who the audience is, what works for them and their social networks, and how we should provide information that is important and relevant to them in a format that is easy for them to understand. In short, to advance evidence-informed decision making in health care, processes and tools are necessary to support evaluations around structure, process, and outcome.

Key Learnings:

- Structure evaluation around the outcomes you want to achieve.
- Know who your audience is and tailor your messages accordingly.
- Program managers are key stakeholders in the inclusion of evidence related to interventions.
- The organization needs to perceive that research is relevant and staff need to perceive that the organization values the use of research evidence.
- There is a need to enhance critical appraisal skills.
- Routine reading of the literature needs to be built into daily work life.
- The issue of time will not go away so we need to learn how to work with it.
- The process is a circular loop. It is challenging. It takes a team. It takes trust.

Using Learning Networks to Improve the Odds for Innovation

Ann Casebeer is an Associate Professor in the Department of Community Health Sciences and Associate Director of the Centre for Health and Policy Studies in the Faculty of Medicine at the University of Calgary. She is also the Faculty Director for SEARCH Canada. Dr. Casebeer combines an applied practice background with an academic background in organizational learning and systems change. This, combined with her work across a multitude of environments, provides her with a unique and valuable firsthand experience in networking, and the use of learning networks to improve the uptake of innovation in health care. She highlighted SEARCH Canada, the Research Transfer Network of Alberta, EXTRA and CHAIN as useful examples of catalyzing spaces for learning and building alliances in health.

Dr. Casebeer's presentation was thought provoking and challenging. Her visuals demonstrated how systems change for health is necessary; how the status quo is just not good enough; and how we are not walking the talk as well as we could be given our resources, especially here in Alberta. Dr. Casebeer posited that the potential for successful complex change and sustained innovation within complex organizations, systems or sector environments depends in large part on our ability to think differently about learning. She described how networks are a powerful source of creating a sustained, flexible space for such learning.

The empirical evidence indicates that complex change capacity is directly related to a high capacity for learning and innovation. We need to increase our capacity to learn and innovate, and link it to our ability to think about planned, process change. In today's environment of rapid change and uncertainty, we need to be able to take better advantage of random, unplanned change. New ways of learning will help us to learn differently, to learn lifelong and to learn together instead of in our individual professional silos. As Dr. Casebeer suggested, "there is power in collaboration."

Key Learnings:

- Learning to change systems is a networked activity and learning is key to enhancing systems change.
- Need to keep the stakeholders in our conversations. Citizen voice is important.
- People tend to have a bias to the status quo especially in health where we are risk averse. However, if we do not learn how to change and do better, the consequences can mean missed opportunities to improve, and potentially a reduced quality of life or a threat to life for our patients and clients.
- There are limits to our power and control. We have to cope with uncertainty and unintended consequences that can be equally life threatening.
- When building a network, we need to think about where the weaknesses are and what we can do to engage our weakest links to build capacity. We need all of the links if we are going to do this. We are all in this community and all part of making a difference.

Cold Leadership

The journey of the evolution of the Research Transfer Network of Alberta was brought full circle when Brian Keating presented the closing address at the RTNA 2007 Conference. It was Brian Keating who provided the opening keynote address at the first conference in Calgary when the Research Transfer Network of Alberta was inaugurated in 2002. Mr. Keating is Head of Conservation Outreach at the Calgary Zoo and an Adjunct Assistant Professor of Anthropology at the University of Calgary. He has led eight expeditions to the Antarctic and has retraced much of Shackleton's route across that continent.

Brian Keating presented a vivid picture of a man who was ahead of his time in an age of heroics, when the flag, scientific exploration and discovery were glorified. In the hopes of moving from a mundane life into an arena of aristocratic fraternization and stardom, Shackleton planned an expedition to cross the continent of Antarctica. The expedition failed to reach its destination, leaving the crew marooned in the Antarctic for two years.

Shackleton knew he would be pushing his team to the brink of human endurance on the expedition and that he needed to have the right people on board. He chose the best scientists and sailors that he could giving consideration to whether or not they had the personal skills and attitude to work together as a team in a positive, buoyant fashion. He kept himself separate from his crew, always maintaining his role as leader; yet was able to communicate effectively with them on a one-to-one basis. He was meticulous and fearless. Through a combination of hard work and fun, he kept the men's enthusiasm and sense of humour high. Throughout the whole ordeal, he kept both the sailors and the scientists busy to maintain their focus, give them hope, and redirect their anger and frustration. He was particularly attentive to and effective at addressing any individual issues in the group, keeping potential problem-makers close and working hard to get them back on board. Although Shackleton did not get the reception he hoped for or deserved back home, he was successful in bringing his men back alive through his innovative approach to leadership.

In this wind-up presentation, Mr. Keating's telling of the Shackleton story illustrated how Shackleton's leadership qualities were instrumental in enabling all of the members of the expedition to get through "an icebound situation with courage and endurance". Mr. Keating related these qualities to the leadership each of us should aspire to in our efforts to promote knowledge transfer.

Key Learnings:

Brenda Wayne Perry, the Director of Research at the Alberta Mental Health Board, aptly provided a summary of the enablers of good leadership in KT as gleaned from Brian Keating's presentation:

- Dream, have a vision;
- Set goals;
- Thoughtfully select team members;
- Define roles and role recognition;
- Do impeccable planning and contingency planning;
- Recognize the value of elders;
- Maintain staff morale;
- Use humour;
- Inspire;
- Mobilize team members; and,
- Pay attention to workplace wellness and work-life balance.

References of Interest

The following is a listing of references noted during presentations at the RTNA 2007 Conference. This is not a comprehensive listing of all of the research materials and writings mentioned by the individual conference presenters, but it does provide some background readings which you might find useful should you wish to pursue any topic areas further.

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Abstracts

*Abstract has been selected for oral presentation

*Melanie A. Barwick PhD, C.Psych – Hospital for Sick Children

Building a Workforce of Health Scientists Skilled in Knowledge Translation, Communication, and Partnership: The Sick Kids Knowledge Transfer Training© Course

Mary Bell MD – Sunnybrook Health Sciences Centre

Educational Intervention to Improve Primary Health Care Management of Arthritis

*Mary Bell MD (presenting, Lois Flakstad) – Sunnybrook Health Sciences Centre

Increasing Public Access to Clinical Practice Guidelines for Rheumatoid Arthritis and Osteoarthritis

Cary A. Brown OTM(C), PhD – University of Alberta

Are Therapists Working in Chronic Pain Evidence-based? It seemed a simple question at the time...

Cary A. Brown OTM(C), PhD – University of Alberta

Denying the Evidence: Exploring healthcare providers' negation of the effective domain in decision-making

Nigel Brown MSc – University of Leeds

Accelerating Innovation in Health Technologies

*Maureen Dobbins RN, PhD – McMaster University

Tailored Messages for Effective Knowledge Transfer: Results from Canada's first knowledge brokering trial

*Mo Donald BSc PT, MSc – Calgary Health Region

Time Grants: Fostering Evidence-based practice in rehabilitation by engaging clinical curiosity

*Carole A Estabrooks RN, PhD – University of Alberta
The Alberta Context Tool: Development, psychometric evaluation, and lessons learned

Nadine Gall – Calgary Health Region
Facilitating Better Use of Evidence

Nadine Gall – Calgary Health Region
Pod Casting – Emerging tools for knowledge exchange and workplace learning

Rod Iwanow – Calgary Health Region
LOCATE: Level of Care and Transfer of Information Effectiveness: Qualitative analysis of clinical providers' experiences in end of life care information transfer

Monica Jack – Alberta Centre for Child, Family and Community Research
Knowledge Exchange at a Policy Forum

Leslie A. Bryant MacLean MSc – Interior Health
Facilitating Knowledge Transfer in a British Columbia Health Authority: The innovative role of research facilitators

Chris Mayhew BA, BSW, RSW – Capital Health
See Your Own, Don't Make Them Wait: Experiences from the Alberta North Primary Care Improvement Initiative

William McDowall – University of British Columbia
Innovative Strategies for KT in Environmental and Occupational Health

*Jennifer Miller PhD – Interior Health
Developing Knowledge Translation Strategies to Enhance Health Services Research Capacity in a Largely Rural and Remote British Columbia Health Authority

Joanne Profetto-McGrath – University of Alberta
Clinical Nurse Specialists' Role in Selecting and Using Knowledge to Improve Practice and Develop Practice-Based Policies Designed to Promote Optimum Patient Outcomes

Paula Robeson RN, MScN – Health Evidence
Knowledge Brokers and Evidence-Informed Decision Making: Reflections on an emerging KT role

Cathie Scott PhD – Calgary Health Region
Generating Evidence Collaboratively to Influence Policy and Practice Decisions in 'Real Time' – The Example from the CoMPaIR Program.

*Janet E Squires RN, PhD Student – University of Alberta
What Factors Predict the Use of Research by Healthcare Professionals in Alberta?

Paul Taenzer – Calgary Health Region
A Multidisciplinary Approach to Knowledge Translation in Low Back Pain Management for Primary Care Practice in Alberta

*Carolyn Trumper – David Thompson Health Region
Building Evidence Literacy Capacity in a Regional Health Authority: Bridging the gap between evidence and practice

Vincent Turgeon – Public Health Agency of Canada
Enhancing Canada's Public Health Decision-making Capacity



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