2nd Annual
First Nations, Metis & Inuit Health Research Symposium

FEBRUARY 28 & MARCH 1, 2013

University of Manitoba
Bannatyne Campus

SYMPOSIUM PROGRAM

Presented by the Manitoba Network Environment for Aboriginal Health Research Program
2013 First Nations, Metis & Inuit Health Research Symposium

Symposium Planning:
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Chantal Edwards
Brenda Elias
John Hansen
Stephanee Ophey
Julianne Sanguins
Leona Star
Dawn Stewart

Abstract Review:
Keith Fowke
Karen Harlos
Michael Hart
Michael Moffatt

The First Nations, Metis & Inuit Health Research Symposium is presented by the Manitoba Network Environment for Health Research (NEAHR) Program

Manitoba NEAHR Team Members:
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Dr. Brenda Elias (Co-PI)
Dr. Kathi Avery Kinew
Dr. Marcia Anderson DeCoteau
Dr. Judith Bartlett
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Dr. Keith Fowke
Dr. John Hansen
Dr. Karen Harlos
Dr. Michael Hart
Dr. Barry Lavallee
Dr. Josee Lavoie
Dr. Javier Mignone
Dr. Michael Moffatt
Dr. Julianne Sanguins
Ms. Leona Star
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<td>0900</td>
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<td>Malcolm King, Scientific Director, CIHR-Institute of Aboriginal Peoples</td>
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<td>D. Young, Executive Lead, Indigenous Achievement, University of Manitoba</td>
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<td>TBA, Assembly of Manitoba Chiefs</td>
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<td>Brenda Garner, Manitoba Metis Federation</td>
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<td>Children's Health and Education Performance (D. Polyzois et al)</td>
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<td>Effect of Vitamin D Supplementation on Mycobacterium tuberculosis-</td>
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<td>induced innate immune responses in a Canadian Dené First Nations cohort:</td>
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<td>Larcombe et al)</td>
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<td>Traditional approaches to infant feeding and oral health in Norway</td>
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<td>House Cree Nation: Preliminary findings (J. Cidro)</td>
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<td>An interdisciplinary approach to investigating solvent use and HIV in</td>
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<td>Winnipeg, Manitoba (C. Bell)</td>
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<td>From Research to Outreach: Collaboration brings key smoking cessation</td>
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<td>messages to key consumers (B. McCannell)</td>
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<td>Facilitating family health promotion with a First Nations community</td>
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<td>Preparing community for emerging leaders (K. Spice)</td>
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<td>Charting a new course: Collaborative environmental mapping by Isga and</td>
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<td>Cree First Nations (K. Peterson)</td>
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'We Were Children' is a documentary film that recounts the experiences of two residential school survivors, Lyna Hart and Glen Anaquod.

From the film synopsis:

As young children, Lyna and Glen were taken from their homes and placed in church-run boarding schools. The trauma of this experience was made worse by years of untold physical, sexual and emotional abuse, the effects of which persist in their adult lives. In this emotional film, the profound impact of the Canadian government’s residential school system is conveyed unflinchingly through the eyes of two children who were forced to face hardships beyond their years. We Were Children gives voice to a national tragedy and demonstrates the incredible resilience of the human spirit.

Lyna will present clips from the documentary and discuss her experiences during this keynote session. We Were Children will air on APTN in March 2013.

Lyna Hart is a pipe carrier, a mother, and a grandmother. She is the Tribal Health Nursing Officer at South East Resource Development Council, and is the co-chair of the Assembly of Manitoba Chiefs Health Information and Research Governance Committee (AMC-HIRGC). Lyna is a University of Manitoba graduate from Nursing. She serves on a number of working groups and committees, including:

- Diabetes Integration Project
- Food Secure Canada
- Partnerships in Health Promotion
- Regional Telehealth Partnership
- The Manitoba First Nations Diabetes Committee
- Winnipeg Harvest
### Day One - Thursday, February 28, 2013 - Afternoon

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<td>1315</td>
<td><strong>Keynote Speaker:</strong> Lyna Hart &lt;br&gt;<em>Southeast Resource Development Council</em>  &lt;br&gt;‘We Were Children’: Personal reflections on the residential school experience (Video clip presentation and discussion)</td>
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<td>1415</td>
<td><strong>Poster Session I</strong> &lt;br&gt;Ischemic heart disease in Metis and all other residents of Manitoba: A comparative study (<em>M. Bassily</em>) [e-Poster]  &lt;br&gt;Disparities in infant health in Winnipeg, Manitoba: An ecological approach to maternal circumstances affecting infant health (<em>L. Kosowan</em>)  &lt;br&gt;Killer immunoglobulin-like receptor genes in tuberculosis patients (<em>K. Braun</em>)  &lt;br&gt;Reducing barriers for pregnant women in rural/remote First Nations communities to participate in lifestyle intervention program through community-oriented approaches (<em>A. Reid</em>)</td>
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<td>1500</td>
<td><strong>CONCURRENT SESSION III</strong> &lt;br&gt;<em>Concurrent Session IIIA</em>  &lt;br&gt;Diffusion of personal health information services: Self-determining and empowering practices for Manitoba Inuit (<em>W. Clark</em>)  &lt;br&gt;Access to eye care and the social context of vision for Aboriginal adult literacy learners (<em>M. Auger</em>)  &lt;br&gt;<em>Concurrent Session IIIIB</em>  &lt;br&gt;Indigenous health research within the Section of First Nations, Metis and Inuit Health (<em>A. Woods</em>)  &lt;br&gt;Engaging with Indigenous health historical archives: Some challenges (<em>M.J. McCallum</em>)</td>
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| 0900  | **Keynote Speaker:** S. Michelle Driedger  
Community Health Sciences, University of Manitoba  
*Developing respectful research-community partnerships with the Metis* | Theatre C 2nd Floor, Basic Medical Sciences Building                                           |
| 1000  | **Poster Session II**  
‘There’s No Place Like Home’ - Exploring the experiences of Metis aging in place (*J. Sanguins et al*) [e-Poster]  
The lived experiences of First Nations families when a family member requires hemodialysis: A proposed study guided by decolonizing methodologies (*C. Cook*)  
The Aboriginal Youth Mentorship Program (*P. Eskicioglu*) | Joe Doupe Concourse 2nd Floor, Basic Medical Sciences Building                                 |
| 1030  | Break                                                                                            | Joe Doupe Concourse 2nd Floor, Basic Medical Sciences Building                                 |
| 1045  | **CONCURRENT SESSION IV**  
**Concurrent Session IV A**  
Walking with Indigenous philosophy: Justice and addictions recovery (*J. Hansen*)  
Roundtable: Immune reactivity to palmitate fatty acid in pediatric type 2 diabetes (*J. Rempel et al*) | Room 202/206 2nd Floor, Basic Medical Sciences Building                                       |
|       | **Concurrent Session IVB**  
Using participatory video for tobacco prevention with Aboriginal youth (*C. Jardine et al*)  
Northern Cree SCIDS (*M. Schroeder*)  
First Nations community based screening to improve kidney health and prevent dialysis (*P. Komenda et al*) | Room 203/207 2nd Floor, Basic Medical Sciences Building                                       |
| 1230  | Closing Remarks, Closing Prayer & Lunch                                                          | Buhler Atrium 1st Floor, Brodie Centre                                                       |
| 1330  | **End of Symposium**                                                                           |                                                                                              |
Historically, Aboriginal people have been the subjects of large amounts of health research, but only rarely were they active participants in the research process. That is now changing, as researchers in a variety of disciplines are working to correct the power imbalances that have traditionally characterized the researcher-community relationship. This presentation focuses on the development of a research partnership between the University of Manitoba and the Manitoba Metis Federation to study Metis perceptions of risk and trust of health decision-maker action during the H1N1 pandemic. The research partnership entailed a process of engagement that involved the Metis community in all aspects of the research process, from conceptualizing the study to the interpretation and dissemination of results.

A health geographer by training, Michelle Driedger is currently an Associate Professor, Tier II Canada Research Chair in Environment and Health Risk Communication, in the Department of Community Health Sciences, University of Manitoba, Winnipeg, Manitoba. Michelle's broad areas of research interests include environment and health, risk perception and risk communication, population health and knowledge transfer. Drawing primarily on qualitative methods, Michelle's research focus involves the study of how new and emerging risk controversies develop in science, policy and public forums. She is particularly concerned with how risk communication strategies need to be culturally appropriate for effective communication in First Nations, Inuit and Metis contexts.
ABSTRACTS & PRESENTER BIOGRAPHIES

CONCURRENT SESSION IA
Thursday, February 28, 2013, 9:45 - 10:45 a.m.
Room 202/6, Basic Medical Sciences Building

How much is too much? Mould in First Nations housing as a determinant of children’s health and education performance

Presenters: D. Polyzois, E. Polyzois, P. Orr, L. Larcombe

Healthy, affordable, and adequate housing is a primary human right that should be available to every community including those in Canada’s First Nation Communities (UN, 2009; AFN, 2005). In reality, however, First Nation communities are facing a significant housing problem. Extreme weather and social conditions create many challenges that affect the conditions of homes and the health of First Nations people. Major problems arise from overcrowding and structural deterioration, which result in poor indoor air quality and weak thermal performance. In 2011, we received a major research grant from the Collaborative Health Research Projects program to: (a) develop a protocol for assessing First Nations housing; (b) use this protocol to develop a Best Practice Process for First Nations housing renewal; and (c) develop a Healthy Housing Index (HHI) which will serve as a tool to measure the link between housing conditions and health, using both medical and building sciences; and, (d) examine the impact of housing and children’s health on school absenteeism and academic performance. In this presentation, the effect of poor housing standards in First Nations communities on the health and education of their residents are discussed and preliminary results are presented from our ongoing research project.

Dr. Dimos Polyzois is Professor and Associate Head of Civil Engineering at the University of Manitoba with extensive research experience in the area of structural engineering. Dr. Polyzois has published extensively and is a member of numerous national and international technical committees. His current research projects include the “Respiratory Health, Housing Conditions, and School Absenteeism Among Nine-Year-Old Children in Winnipeg,” funded by CIHR, and the “Development of a Protocol for the Renewal of Housing to Improve the Health of First Nations Residents,” a Collaborative Health Research Project funded by the NSERC and CIHR. He is also developing technologies for bringing wind energy to remote communities.

Dr. Eleoussa Polyzois is Professor of Education at the University of Winnipeg. She has expertise in special education, children at academic risk, qualitative research methods, educational change, transformative learning, leadership, and developmental studies. Her publication list includes five books, eight book chapters, and over 50 scholarly journal publications. Dr. Polyzois is a co-principal investigator in the “Respiratory Health, Housing Conditions, and School Absenteeism Among Nine-Year-Old Children in Winnipeg,” funded by CIHR, and the “Development of a Protocol for the Renewal of Housing to Improve the Health of First Nations Residents,” a Collaborative Health Research Project funded by the NSERC and CIHR. She is also co-principal investigator in a study dealing with “Success Despite the Odds: Identifying Factors That Promote Educational Success In High-Risk Adolescents” which examines the impact of specific variables (e.g., poverty, teen parenthood, Child and Family Services involvement, and criminal activity) on high-school graduation rates.
Effect of Vitamin D supplementation on Mycobacterium tuberculosis-induced innate immune responses in a Canadian Dene First Nations cohort: What does this mean in the context of First Nations health?


Canadian First Nations population experiences a high burden of tuberculosis. Vitamin D is known to enhance the expression of innate immune effectors, including cathelicidin LL37, for protection against infections. In this study we performed longitudinal analyses to investigate the impact of vitamin D supplementation on macrophage responses to Mycobacterium tuberculosis (Mtb) lipoprotein (TLR2/1L), in Canadian Dené First Nation participants compared to Caucasian participants. Serum 25(OH)D and LL37 levels were evaluated by ELISA. The results of this study suggests that vitamin D supplementation may not result in enhancing immunity to infections, in particular for intracellular pathogens such as Mtb, in this Dené cohort. Innate immune cellular responses induced in response to infections, in particular intracellular pathogens, differ between Dené First Nations and Caucasians. The results are presented within the context of biologic and social determinants of health.

Dr. Linda Larcombe is an Assistant Professor in the Faculty of Medicine and is a broadly trained anthropologist whose career has focused on First Nations history, health and collaborative research. Linda's experience in archaeology, ancient DNA, history, traditional land use studies, medical anthropology, immunogenetics and research projects with First Nations communities transitioned into research that is focused on investigating the risk factors that are contributing to the high rates of diseases among Manitoba's First Nations populations.

CONCURRENT SESSION IB
Thursday, February 28, 2013, 9:45 - 10:45 a.m.
Room 203/7, Basic Medical Sciences Building

Traditional approaches to infant feeding and oral health in Norway House Cree Nation: Preliminary findings

Presenter: J. Cidro

Early childhood caries (ECC) is the most prevalent chronic disease amongst Aboriginal children in Canada. The causes of this condition are multifaceted including many social determinants of health, and are most easily characterized by infant feeding practices. ECC is a condition that has become increasingly prevalent and severe in in Aboriginal communities. Intervention research such as dental care providing to expectant mothers, fluoride varnishing for infants, and talk therapies including motivational interviewing and anticipatory guidance have shown varying successes as it pertains to behavior modification. This presentation highlights some of the preliminary findings from data collected in Norway House Cree Nation that explores traditional approaches to infant feeding and oral health practices. Using interviews and focus groups, we uncovered how these traditional approaches could be modified within a contemporary context and incorporated into current prenatal and antenatal programming in this community. This project is done in collaboration with Norway House Cree Nation Health Division and is funded through the Manitoba NEAHR New Investigator Award program.

Dr. Jaime Cidro is an Assistant Professor of Anthropology at the University of Winnipeg. She looks at Aboriginal health issues through a socio-cultural lens with a specific focus on socio-cultural determinants of health such as cultural identity, and cultural based health interventions. Her health research focuses mainly on Canadian Aboriginal populations on Manitoulin Island and in Northern Manitoba. Jaime also works in urban Aboriginal issues within Ontario. Dr. Cidro is currently the principal investigator in a community based NEAHR grant through CIHR on cultural based oral health interventions on Manitoulin Island and a co-principal investigator on a CIHR grant on oral health interventions for early childhood tooth decay, and is the lead site investigator for Thompson and Norway House Cree Nation. Dr. Cidro is also the lead investigator on a community based project in Thompson that is looking at economic leakages and purchasing in Thompson and the outlying communities in northern Manitoba in partnership with Thompson Unlimited. She holds an undergraduate degree from the University of Waterloo in Environment and Resource Studies, and a Master's degree from the University of Waterloo in Economic Development as well as a PhD in Rural Studies, Sociology Anthropology from the University of Guelph.
An interdisciplinary approach to investigating solvent use and HIV in Winnipeg, Manitoba

Presenter: C. Bell

Individuals that work closely with the solventusing population in an outreach/support capacity, as well as clinicians, have observed that HIV is present within the solventusing population and proposed that solvent use may have an impact on HIV susceptibility and disease progression. This research aims to investigate social and biological factors that may be contributing to HIV risk in solvent users through an interdisciplinary approach merging community based research and basic science. The first phase of research involved networking and consultations with solvent users at Sunshine House, a community-based drop in centre in Winnipeg, MB that provides services to street involved individuals, many of whom are Aboriginal and involved in solvent use. Focus groups and individual interviews were conducted with solvent users, and key informants were also interviewed. The focus groups explored attitudes towards the project approach, team, and design. Individual interviews probed into initiation, patterns and history of use, the physiological and behavioral effects of solvent use, and how using solvents has impacted people’s lives generally, as well. Interviews with key informants shed light on the attitudes and experiences of those who work closely with the solvent using population. Prior to dissemination of findings, results of phase one were presented to a group of solvent users as a data verification step. Overall, the consultations from this first phase of research have provided a foundation for the next phase of research which will explore the impact of solvent use on the immune system.

Courtney Bell is a Métis woman from Bellsite, Manitoba. She currently resides in Winnipeg, Manitoba where she is an M.Sc. student at the University of Manitoba. Courtney is in the last year of a Masters program in the department of Medical Microbiology. Courtney completed her undergraduate degree at the University of Winnipeg. She double majored with Biochemistry and Honors Biology. She has been receiving funding and support from NEAHR throughout summer internships, and her graduate career in a viral immunology lab. Courtney's current research is in the area of HIV disease progression and susceptibility within Manitoba. One project that she is working on involves using community based research and basic science to investigate social and biological factors that may be impacting HIV susceptibility and disease progression in solvent users in Manitoba. Courtney is also involved with a project investigating host genetic links to HIV rapid disease progression in Manitoba.

CONCURRENT SESSION IIA

Thursday, February 28, 2013, 11:00 a.m. - Noon
Room 202/6, Basic Medical Sciences Building

From research to outreach: Collaboration brings key smoking cessation messages to key consumers

Presenter: B. McCannell

Objectives: In partnership with aboriginal and government stakeholders, to share, through the development of culturally appropriate knowledge translation tools, key research findings and drug coverage decisions stemming from an indepth Canadian review of smoking cessation pharmaceuticals.

Method/approach: In 2010, CADTH released a health technology assessment on the effectiveness of smoking cessation pharmaceuticals for longterm cessation. The evidence showed that smoking cessation medications are two to three times more effective than placebo for longterm cessation. Based on the report, Noninsured Health Benefits (NIHB), Health Canada increased the number medications available to their clients. Subsequent discussions with clinicians and clients revealed a lack of awareness about the clinical effectiveness of these medications and about the wide range of medication options available through NIHB. CADTH worked with the Assembly of First Nations (AFN), the National Association of Friendship Centres (NAFC), the Government of Nunavut, and Health Canada to develop a suite of plain language tools to fill those knowledge gaps. The objective was to provide patients and healthcare providers with concise, meaningful messaging about the effectiveness of smoking cessation medications to support existing smoking cessation initiatives. Unique versions of First Nations’ tools were developed for AFN and NAFC. The Government of Nunavut collaborated with CADTH on Inuit versions of the most popular tool, the medication guide, making it available in four languages.
Facilitating family health promotion with a First Nations community using focused ethnography

Presenters: D. Martin, R. Woodgate, C. Hart

To reduce health disparities, researchers must examine the underlying determinants and context shaping health by partnering with First Nations Peoples. Two focused ethnographic studies were conducted to identify significant needs in family health from the perspectives of health care providers and community members in a First Nations community located in Western Canada. In this oral presentation, we compare and contrast the perspectives of health care providers with community members by using proximal and distal components of community health as a guiding framework. Health care providers tended to focus on the proximal determinants of health to identify significant family health needs and they consistently shared their concern for community members to “eat better” and “exercise more.” Community members tended to view family health needs using the broader, distal determinants of health such as the historical, political and environmental context. Findings were shared with community leaders to provide new directions for family health promotion programs. We discuss how the findings were utilized to promote family health in the participating First Nations community. This research design may be adopted by other researchers and groups to facilitate new directions in health promotion in partnership with First Nations Peoples.

Donna Martin is an Assistant Professor, Faculty of Nursing, University of Manitoba. Her research interests include Indigenous peoples’ experiences as health care consumers, providers, and policymakers using decolonizing methodologies.

Roberta Woodgate is a Professor, Faculty of Nursing, University of Manitoba and Research Chair, MHRC. She conducts applied health services and policy research that involves and is germane to health system managers, policymakers and healthcare providers as well as the children impacted by the research. She is the PI of a CIHR funded project: Understanding the Disability Trajectory of First Nations Families of Children with Disabilities: Advancing Jordan’s Principle.

Cindy Hart is the Director of Health Services, Fisher River Cree Nation. Ms. Hart has been a nurse for 22 years with the past 9 years in Health Management in various settings. Her career path has been directly involved in Aboriginal Health, more recently in a First Nations health authority.

Barbara McCannell has been the Manitoba Liaison Officer for the Canadian Agency for Drugs and Technologies in Health (CADTH) since May 2011. CADTH is an independent, not-for-profit producer and broker of health technology assessments. As Liaison Officer for Manitoba, Barbara connects healthcare policy makers and providers with evidence-based information about drugs, medical and dental devices and procedures, and ensures that CADTH is aware of Manitoba’s evidence needs and priorities. Barbara has worked in the health care field in Manitoba since January 1990. She was a Resource Developer in the Home Care Program, Coordinator of Services to Seniors, then Home Care Program Manager, all in the Parkland Region. She next worked at Manitoba Health, first as Program Consultant, Home Care & Long Term Care, then as Liaison to two rural Regional Health Authorities.
Preparing community for emerging leaders

Presenter: K. Spice

I am working in partnership with an Anishinaabek community based healing organizations in Manitoba, (Hollow Water First Nation) as they prepare for the succession of their organizational worldview. Those engaged in creating and managing the restorative justice/heal process have matured want to transfer their knowledge and responsibilities to a succeeding generation of community members. The community organization is revisiting their purpose, structure and training but is also continuing its commitment to an integration of traditional community values with pragmatic concerns for current community issues. How does Anishinaabek organization, that has a great wealth of information, and has spent years decolonizing community and revitalizing Anishinaabek practices, maintain the principles of tradition and community pragmatism to address continually evolving issues? The organization draws heavily on Anishinaabek healing, justice, leadership, spiritual perspectives and practices that inform their organizational structure, thus the organizational perspectives and values are infused with an Anishinaabek worldview. The research will produce training and succession plans for the organization that I hope will be useful to other communities both Indigenous and Settler. An issue for further exploration is the possibility of using the techniques developed by this research to contribute to intergenerational residential school effects.

In 1997 Kevin moved to Hollow Water First Nations and began developing meaningful relationships with community members. Since that time he has been learning about Anishinaabek worldview and is contributing to Hollow Water’s community development. Kevin maintains a strong working relationship with community members by teaching courses and facilitating research with Hollow Water community members. His experience in facilitating intercultural dialogue between community and students has created opportunities for shifting student perspectives. In order to create positive relationships students are encouraged to listen to and engage with community members. His research is looking at ways to create succession planning to address continually evolving community issues for successive generations of community members. Kevin is committed to Indigenous/Settler relations and is currently a PhD candidate in the Department of Indigenous Studies at Trent University. Follow Kevin at http://trentu.academia.edu/KevinSpice or kevinspace@hotmail.com

Charting a new course: Collaborative environmental mapping by Isga and Cree First Nations

Presenter: K. Peterson

The Isga and Cree Peoples of west-central Alberta have witnessed and adapted to profound changes to their traditional territories now for many generations. Despite extensive development impacts, these Indigenous communities have maintained traditional land use activities, including hunting, fishing, berry picking and gathering medicines. However, Elders and hunters have observed declines in the health of harvested moose and other animals over the past 20 years, as well as the deterioration of other aspects of environmental health such as water quality. There is much concern amongst community members regarding the implications of these declines for human health as well as the long term viability of the wildlife they hunt. Through a partnership with the University of Manitoba, the Alexis Nakota and Paul First Nations are characterizing changes to wildlife and environmental health in their traditional territories. Through interviews, Elders, hunters and other community members are documenting spatial Traditional Knowledge (TK) that is combined with digital land cover data. Analysis of these data is revealing trends in environmental health in this region from both an Indigenous and western scientific perspective. The research outcomes will inform land management policy recommendations for improving and maintaining the ecosystem health that is vital for the long term food security of these First Nations communities.

Katie Peterson is a Master of Environment candidate with the Environmental Conservation Lab at the University of Manitoba. She has been working with the In Land and Life First Nations Wildlife Health Study for the past three years in various capacities, including her thesis research documenting Traditional Knowledge of changing environmental health in the territories of the Alexis Nakota Sioux and Paul First Nations in west-central Alberta.
Ischemic heart disease in Metis and all other residents of Manitoba: A comparative study

**Presenters:** M. Basilly, J. Sanguins, P. Mehta

Objectives: The purpose of this study is to present a comprehensive situation analysis on the health status of Metis of Manitoba with ischemic heart disease (IHD) and the related cardiac services utilization. Furthermore, this study aimed to identify the differences between Metis and All Other Manitobans with IHD at different geographical levels (provincial, among Regional Health Authorities (RHAs), and among aggregated nonurban areas of Manitoba). Results of this study will be disseminated to the Metis communities and the RHAs of Manitoba to collaborate together in design of health policies and programs that address the health needs of the Metis population.

Methods: This study investigated population-based indicators of IHD and related comorbidities, health services use, and pharmaceutical use in Metis in Manitoba compared to all other Manitobans. Using deidentified administrative databases linked with the Metis Population Database housed at the Manitoba Centre for Health Policy, age- and sex-adjusted rates of mortality and morbidity were calculated for Metis (n=3,000) and all other Manitobans (n=46,437). Prevalence of IHD and related health care utilization were measured for both groups. Results: Prevalence of IHD was statistically higher for Metis than all other Manitobans aged 19 years and older (10.3% vs. 7.3%, p<0.001). Moreover, rates of comorbidities were statistically higher for Metis with IHD compared to all other Manitobans with IHD aged 19 years and older (e.g. diabetes mellitus 20.0% vs. 16.5 %, p<0.001, anxiety disorders 14.9% vs. 12.8%, p= p<0.001, and substance abuse 10.7% vs. 8.6%, p<0.001). Logistic regression showed that Metis ethnicity was an independent predictor of IHD, even after controlling for other factors. Conclusion: Despite universal healthcare, it is clear that among Manitobans with Ischemic Heart Disease, Metis are worse off. Metis communities, RHAs and Manitoba government can utilize results of this study to make a difference together to the health of Metis.

Mena Bassily is working as an Epidemiologist and a coordinator of data linkage studies at the Manitoba Metis Federation (MMF). His main focus is investigation of health disparities in Metis and their effect on the quality of life of the Metis Population. Mena has Masters Degree in Epidemiology and a Bachelor of Medicine. He received a pre-doctoral training at the Harvard School of Public Health, USA. His research interests include chronic disease epidemiology, and health disparities in cancer care. Mena is the author of many publications and a peer reviewer for multiple international journals. Before joining MMF, Mena held an Assistant Professor position at the Menoufiya University, Egypt. He also worked as a Project coordinator at the Harvard School of Public Health, Children's Hospital Boston, and Harvard School of Sciences, USA. As Epidemiologist, he served in surveillance and emergency preparedness programs in many countries.

Disparities in infant health in Winnipeg, Manitoba: An ecological approach to maternal circumstances affecting infant health

**Presenter:** L. Kosowan

Infant health is an important comprehensive measure of the health in a society reflecting experiences with the social determinants of health that impact not only the current health of an infant but also their future health and wellbeing. Indigenous populations experience unequal access to economic, social and health care resources and disproportionately experience a higher burden of preventable mortality, morbidity and worse birth outcomes. Manitoba's infant mortality rate is higher than the Canadian average with the worst infant health outcomes reported in Winnipeg and among Aboriginal populations. This thesis seeks to determine the impact of maternal circumstances on infant mortality, morbidity and disability rates. Using logistic regression models to explore quantitative data held in the Population Health Research Data Repository at the Manitoba Centre for Health Policy, namely BabyFirst and FamilyFirst surveys, census data, vital health records and administrative health data, this thesis will explore the odds of adverse infant health outcomes in relation to different maternal sociodemographic factors. The relationship between the social determinants of health and poor infant health outcomes has been suggested by previous research. Analyzing maternal sociodemographic factors, while controlling for the affect of confounding factors, will highlight risk factors for infant mortality, morbidity, and disability.
Killer immunoglobulin-like receptor genes in tuberculosis patients

Presenter: K. Braun

Objective: Although tuberculosis (TB) rates in Canada are declining, incidence in Canadian Aboriginal populations and foreign born individuals living in Canada remains high. The objective of this study was to compile killer immunoglobulin-like receptor (KIR) gene profiles found in Canadian born Aboriginals, Canadian born non-Aboriginals, and foreign born individuals from Manitoba with active, latent, and uninfected TB status.

Methods: DNA was extracted from whole blood using the Qiagen DNA Mini kit according to manufacturer’s instructions. KIR profiles were determined in 209 patients (59 active, 46 latent, and 104 uninfected TB controls; 54 Aboriginal, 77 non-Aboriginal, and 78 foreign born individuals) using the Miltenyi Biotec KIR typing kit. TB disease status was determined by culture and/or clinical diagnosis.

Results: Many significant differences were seen in KIR gene frequencies between individuals with and without tuberculosis. KIR2DL2/S2 (P=0.0005/0.0010) and 2DS3 (P=0.0009) were present less often in active TB cases compared to uninfected individuals. In addition, KIR2DSLB was present more often in latent TB cases compared to uninfected individuals (P=0.0125). These trends remain consistent when broken down into Aboriginal, non-Aboriginal and foreign born population groups.

Conclusion: This study shows that there are differences in the KIR gene frequency in tuberculosis patients of different population groups. Further investigation is needed to explore the subtleties of these differences using sequencing and/or KIRHLA association studies.

Kali Braun is a Master of Science student in the department of Medical Microbiology and Infectious Diseases. Under supervision of Dr. Meenu Sharma at the National Reference Centre for Mycobacteriology, her thesis project involves comparing human genetics, specifically killer immunoglobulin-like receptor (KIR) genes, of Manitoba tuberculosis patients of Aboriginal, non-Aboriginal, and foreign born descent. Her work seeks to understand the role that host genetics play in the progression of tuberculosis (TB) disease. Further investigation of the immunological aspects of TB disease may lead to a better understanding of disease progression and novel treatment approaches.

Reducing barriers for pregnant women in rural/remote First Nations communities to participate in lifestyle intervention program through community-oriented approaches

Presenter: A. Reid

Purpose and Objectives: The purpose of the present community-based, participatory needs assessment was to increase the participation of pregnant women in a community-based lifestyle intervention program aimed to reduce the risk of obesity and type 2 diabetes in four First Nation (FN) rural/remote communities in Manitoba. Design and Methods: This was a mixed methods study. In order to identify barriers for recruitment, in depth interviews and focus group interviews with pregnant women, elders, and healthcare workers were conducted in the FN communities. A collaborative forum was held in Winnipeg, as a way to bring all the communities together to discuss the most common barriers and brainstorm possible solutions. Key players in prenatal care in each community, previous research participants, partner programs, healthcare workers, and FN authorities were invited to the forum. We also tracked changes in enrolment into the study following the qualitative data collection. Results: Barriers and solutions related to study advertisements, participant transportation, child care for participants, and community involvement in the program were identified and discussed. Building rapport, identifying barriers, and probing for solutions within the communities were identified as key factors associated with
successful recruitment and adherence to a lifestyle intervention for pregnant First Nations women. Targeted environmental improvements based on the suggestions have been implemented in the communities. Enrolment of pregnant women in the lifestyle intervention program increased substantially from 17 participants in the pilot study to 29 participants after the forum. Conclusions: The results suggest that developing, building, and maintaining relationships with community residents and key players in rural communities and environment improvements can help to increase interest and participation of FN pregnant women in rural/remote communities to the prenatal lifestyle intervention program. These results also emphasize the importance of conducting formative research prior to delivering an intervention in First Nations communities (supported by CIHR and PHAC).

I am a University of Manitoba graduate with a Bachelor of Human Nutritional Sciences Degree. I currently work for Dr. Garry Shen with the IDEA Study (Impact of Diet and Exercise Activity on Outcomes in Pregnant Women at Risk of Diabetes) as a Research Assistant. As a part of my position, I travel to 4 rural communities every month to deliver nutrition and exercise classes to prenatal women as a means to prevent gestational diabetes during pregnancy.

CONCURRENT SESSION IIIA
Thursday, February 28, 2013, 3:00 - 4:00 pm
Room 202/6, Basic Medical Sciences Building

Diffusion of personal health information services: Self-determining and empowering practices for Manitoba Inuit
Presenter: W. Clark

This presentation describes Inuit cultural considerations when defining and communicating electronic health concepts and personal health information services to urban Inuit audiences. Applying a two-eyed seeing model to build on and describe contextual meanings for Western and Inuit versions of health information and information communication technologies is critical to sustained relevance of electronic health information. Overarching concerns include reclaiming Inuit ownership and vision; sustainability; and, authority and capacity. It is within an electronic health space that Inuit can attain selfdetermination for the management of their own personal health data and develop a set of culturally safe and empowering practices for communicating ownership and cultural relevancy of health and health information in an evolving health care system.

Wayne Clark, MA, is a Senior Program Analyst with Manitoba eHealth where he responsible for key performance indicators and benefits evaluation for the provincial electronic health record, eChart Manitoba. Wayne was the past Director of Communications for the National Aboriginal Health Organization overseeing strategic planning and communications, public relations, and special projects. In 2010, he was the lead investigator for the World Health Organization Report: Indigenous Health: Laying a Claim to a Future for All of Us (Part IV: Canada). Wayne is a member of the University of Manitoba, Faculty of Medicine First Nations, Métis, and Inuit Health Research Working Group and University of Victoria, eHealth Observatory Benefits Evaluation Knowledge Translation (KT) Community and has sat on committees and working groups for Health Canada, Canadian Heritage, and Canadian Centres of Excellence. Wayne is originally from Churchill, Manitoba and is an Inuk Beneficiary of the Nunavut Land Claim Agreement (Whale Cove).
Access to eye care and the social context of vision for Aboriginal adult literacy learners

Presenter: M. Augur

Despite increasing concerns around the ocular health conditions, and the social and economic impacts that these diseases are having on a substantial portion of Canada’s population, there is a paucity of research that addresses issues in accessing eye care for urban Aboriginal populations with low literacy levels. In partnering with the Learning Circle Literacy Program of the Prince George Native Friendship Centre (PGNFCLCLP), this research aims to understand the following questions: (1) What are the barriers faced by Aboriginal peoples with lower literacy levels when accessing eye care services in Prince George, BC? (2) What local Indigenous principles, practices and community strengths can be drawn on to improve access to these services? (3) What is the connection between health literacy, vision, and social wellbeing? And (4) What role does health literacy play in concordance with eye care recommendations and the NonInsured Health Benefits Program? Through examining the various factors that impact access to vision care for Aboriginal learners in the PGNFCLCLP this study will aim to highlight the magnitude and roots of eye care issues within these communities while examining various financial, geographic, cultural, and social barriers in accessing culturally appropriate vision care. Through using a modified participatory framework and a qualitative research design, seven open-ended interviews were conducted with Status First Nations individuals with lower literacy levels. The participants helped to highlight the unique challenges that they have faced in accessing eye care services in an urban environment, as well as the struggles they have dealt with in navigating the NonInsured Health Benefits Program. This research indicates that unique, collaborative strategies are required to reduce these barriers and improve the health of urbandomwelling First Nations communities in Prince George, British Columbia, and throughout Canada.

Monique Auger is a young Métis (Cree) woman who was born and raised in Victoria, BC, on Coast Salish Territory. She recently received her BA in First Nations Studies at the University of Northern British Columbia, with an interdisciplinary focus on health research, and is looking into options for graduate studies in Aboriginal health. She is currently working at the Aboriginal Healthy Living Branch, Ministry of Health, as an Aboriginal Youth Intern and has been focused on addressing and implementing a variety of the identified commitments in the Tripartite First Nations Health Plan. She is also a contracted qualitative research analyst and community report writer for Sasamans (‘Our Children’) Society, located in Campbell River, BC. She has a passion for working to alleviate health inequities experienced by Aboriginal peoples in Canada, many of which are deeply embedded within social, political, geographic, and cultural determinants of health.

CONCURRENT SESSION IIIB

Thursday, February 28, 2013, 3:00 - 4:00 pm
Room 203/7, Basic Medical Sciences Building

Indigenous health research within the Section of First Nations, Metis and Inuit Health

Presenter: A. Woods

Research, as one of the three pillars of the University of Manitoba, is one of the main priorities of the Section of First Nations, Métis, and Inuit Health. The vision of the Section is to contribute to the development of optimal health and wellbeing of First Nations, Métis, and Inuit people and to work towards and support Indigenous self-determination. The Section is currently in the process of establishing a strong program of research within the Faculty of Medicine which will build partnerships between the University and Indigenous people, communities and organizations, and will work towards the strengthening of health and well-being of Indigenous people in Manitoba and beyond. Over the past few months, we have been building our program of Indigenous Health Research and Evaluation. The strengths of this program of research and evaluation are in the fact that they will be Indigenous led and involve community engagement throughout. Two of our current research projects involve speaking with current and former Indigenous medical students who were admitted to and/or attended the University of Manitoba. These projects will involve capturing the experiences, stories, perspectives, and outcomes of Indigenous medical students in person to person discussions and interviews. As well, we will include discussions with University faculty and staff in order to capture a complete as possible examination of the experience of medical school for Indigenous students. With the support of
Recently, the Truth and Reconciliation Commission (TRC) has made news in its efforts to access some historical documents that it says are vital to its mandate (to research the truth about the history of Indian Residential Schools, and to use this history as a basis for reconciliation and healing.) Under the agreement that established the TRC, the government of Canada and the churches were obliged to provide “all relevant documents in their possession or control” to the Commission however the federal government has been dragging its feet on the matter. In late December 2012, the TRC sought legal action to compel the federal government produce the records. At the time, the Commission’s lawyer stated, “What is at stake here is control over history.” This case highlights some of the ongoing challenges faced by Indigenous health historical researchers who consult archives. Using my own research experience, largely with Health Canada records at Library and Archives Canada and Sanatorium Board of Manitoba records at the Manitoba Archives, I will discuss the role colonialism plays in shaping the character and structure of Indigenous health historical records. I will also discuss some of the challenges in accessing and using Indigenous health historical information, especially as ethical guidelines often fail to address the distinct nature of our archives and the diverse applications of our history. While researching our own archives is never a straightforward process, I will argue that it plays a vital role in locating and drawing attention to health and health service inequities and sometimes also to understanding Indigenous worldviews on health. In addition, I will discuss how current trends in the ways our archives are preserved and made available have some important implications for Indigenous health research that determine if and how, as individuals and communities, we engage in health archival research.

Mary Jane Logan McCallum is an assistant professor in the History Department at the University of Winnipeg and is the recipient of a Canadian Institutes of Health Research New Investigator Award from the Manitoba NEAHR (Network Environments for Aboriginal Health Research). Her research interests are in the areas of twentieth-century Aboriginal history and the history of Aboriginal women and her work deals with labour, health and education and histories of race and imperialism in Canada. Her research publications include “This Last Frontier: ‘Isolation’ and Aboriginal Health” in the Canadian Bulletin of Medical History (2005) and “Indigenous Labor and Indigenous History” in the American Indian Quarterly (2009). Her first monograph, a history of Aboriginal women and work in the mid-twentieth century, is in revision with the University of Manitoba Press. She is a member of the Munsee-Delaware Nation.
'There's No Place Like Home' - Exploring the experiences of Metis aging in place  [e-poster]


Aging in place refers to the ability of an individual to remain in their home and community as they age. Being able to age in place often results in better health over the long term; however, there are challenges for those aging in place, including reduced access to care and support services, unsafe living conditions, and social isolation. This study was undertaken after Metis citizens in the Manitoba Metis Federation (MMF) Northwest Region identified a need to further understand the experiences of Metis seniors aging in their communities, and to become informed about any unmet needs. The research was carried out in four rural communities, collecting stories and experiences through focus groups with Metis seniors as well as their informal and formal caregivers. The questions we sought to answer through this research revolved around identifying what resources and services exist, and what is still needed, to support aging in place. The main resources and supports to aging in place that Metis seniors and their caregivers felt were most needed included affordable and accessible transportation; more accessible, and expanded scope of, home care services; help with home maintenance; and appropriate housing or upgrades to existing homes. Another important finding from this research was that Metis culture is alive in many rural communities—being supported by, and providing strength for, seniors aging in place. Also, governance—having a voice to speak for themselves—was an important issue to participants. This current and reliable information (until recently known only anecdotally), collected in a Metis-specific holistic manner, will help to inform Manitoba Health and the MMF on how to adapt health programs, services, and policies to better meet the needs of Metis seniors aging in place. Working in collaboration, we can improve the health and wellness of Metis in Manitoba.

Dr. Judith G. Bartlett, MD, CCFP, MSc is an Associate Professor in the Department of Community Health Sciences in the Faculty of Medicine at the University of Manitoba, and an Adjunct Scientist with the MCHP. She was Co-Principal Investigator for this study.

Dr. Julianne Sanguins, RN, PhD is an Assistant Professor in the University of Manitoba’s Department of Community Health Sciences and Research Program Manager of the MMF–HWD. She was also Co-Principal Investigator for this study, and directly supervised all research staff.

Frances Chartrand, Director of the MMF Metis Community Liaison Services, participated in study design and analysis and facilitated entry into the communities.

Sheila Carter, Director of the MMF–HWD, participated in study design and analysis.

Jennifer Temmer, MSc and Community-Based Research Capacity Developer at MMF–HWD, acted as Project Coordinator.

Diane McKay, Community Liaison Worker in the Northwest Region, assisted with logistics in the study communities.
The lived experiences of First Nations families when a family member requires hemodialysis: A proposed study guided by decolonizing methodologies

Presenter: C. Cook

In this presentation, I describe how decolonizing methodologies will guide a proposed study. From the standpoint of a First Nations woman and a renal health nurse, this study will explicate how First Nations families experience end-stage renal disease and more specifically, the treatment called hemodialysis. Research questions are (a) What are the lived experiences of First Nations families when a family member is treated with hemodialysis?, and (b) What are the facilitators and barriers that shape these experiences? Data sources will include face-to-face, audiotaped interviews with adults treated with hemodialysis and their family members. Collective consensual data analytic procedures and participatory action research principles will be employed. Ethical principles and scientific rigor will be ensured through collaboration. Recommendations based upon the study’s findings will be disseminated to all participating First Nations families, Chief and Council of the participating First Nations community, Assembly of Manitoba Chiefs, and Manitoba Renal Program.

Crystal Cook, RN, BN is a graduate student at the University of Manitoba, Faculty of Nursing and her home community is Misipawistik Cree Nation. Her academic pursuits are directed in the field of health care, holistic practices, indigenous studies and cultural promotion. As a nurse, she has worked in orthopedics, rheumatology, oncology, and renal health but her specialty is hemodialysis. The experience of working with First Nations Peoples in a dialysis unit in Northern Manitoba created the desire to improve their access to quality care. Recent achievements include an invited workshop for the Aboriginal Nurses Association of Canada, a TD Aboriginal Nursing Fund Award from the Canadian Nurses Foundation and an Irene E. Nordwich Foundation Award. Ms. Cook hopes to provide a First Nations perspective in health research, through example and in practice so that patients and providers can all learn and make a difference together.

The Aboriginal Youth Mentorship Program

Presenter: P. Eskicioglu

Introduction: Aboriginal youth are at greater risk of obesity and type 2 diabetes (T2D) compared to non-Aboriginal youth. Few school-based programs have been developed to reduce the risk of T2D in Aboriginal youth living in rural communities. We piloted a peer-led healthy living program in Garden Hill, Manitoba to assess the efficacy on the deterioration of anthropometrics measures, as well as, increase knowledge of healthy foods and activities.

Methods: A non-randomized experimental trial with a parallel non-equivalent control group was performed, using two student cohorts between January and May in the 2010/2011 and 2011/2012 school years. The intervention was offered to grade 4 students as a weekly afterschool program facilitated by volunteer high school mentors. Weekly lesson plans focused on four different areas of wellbeing that contribute to healthy weight: knowledge of healthy living, physical activity, healthy eating, and self-esteem. The primary outcome measures were the change in waist circumference (WC) and body mass index z-score (BMIz). Secondary outcome measures include healthy living knowledge (HLK), self-efficacy, and body image.

Results: A total of 151 students in grades 4 and 5 were measured and 72.67% of the children were overweight or obese. The increase in waist circumference was significantly lower in the intervention group, compared to the control group (+3.4 ± 1.37 cm vs. 0.39 ± 0.66 cm; p=0.0001). The BMIz increased significantly in the control group (0.07 ± 0.2 vs. 0.05 ± 0.03, p=0.199), while no change was observed in the intervention group. No significant differences between groups were observed in HLK, self-efficacy, and body image.

Conclusion: We found that the Aboriginal Youth Mentorship Program is successful in attenuating WC in Aboriginal youth living in a remote First Nation community. The success of this pilot study provides the foundation for future school-based peer-led interventions among Aboriginal elementary students in rural communities.

Pinar Eskicioglu is a first year Master’s student at the University of Manitoba in the Faculty of Kinesiology and Recreation Management. She received her undergraduate degree at the University of Manitoba in Kinesiology. Pinar’s research interest focuses on Aboriginal youth living in rural communities. During the last year, she has been involved in 4 different projects related to physical activity in Aboriginal youth and youth with type 2 diabetes. Her Master’s project focuses on the impact of physical activity on weight gain and body fat distribution (waist circumference) in Aboriginal youth living in rural communities in Manitoba.
Roundtable Session: Immune reactivity to palmitate fatty acid in pediatric type 2 diabetes  


Background: First Nation children and youth are subject to increasing rates of type 2 diabetes (T2D). Immune cells, particularly monocytes and macrophages, have toll-like-receptor(TLR)4 on their surface. TLR4 bind certain carbohydrates including dietary fatty acids in the blood. As result, these cells become activated or hyper, producing an increased amount of pro-inflammatory cytokines. These cytokines, including interleukin (IL)1beta, can disrupt insulin signaling. We are investigating if this process participates in pediatric T2D. We hypothesized that in pediatric T2D monocytes would demonstrate increased reactivity towards palmitate fatty acid.

Methods: Parents and youth at the Pediatric Diabetes Clinic and Manitoba Institute for Child Health interested in participating signed consent and assent forms. Donated blood was evaluated for serum cytokines including IL-1beta, along with adiponectin and leptin. Peripheral blood mononuclear cells (PBMCs, monocytes and other white blood cells) were isolated to assess reactivity to TLR4 ligands palmitate fatty acid (200 uM) and lipopolysaccaride (LPS, 2 and 0.2 ng/ml). Cytokine secretion was examined.

Results: Serum cytokines did not differ between T2D (n=8) and control (n=8, BMI matched youth without T2D) cohorts. Adiponectin was reduced in T2D (p<0.05). Leptin levels correlated with body mass index (r=0.700, p<0.01). PBMCs from the T2D cohort were more reactive to palmitate fatty acid and threshold LPS doses (0.2 ng/ml), with 3.5 fold and 2.5 fold greater IL-1beta production respectively than control cells (p<0.05). Further analysis indicated
that the primary cell population producing IL-1beta were monocytes. In summary, monocytes from youth with T2D appeared more reactive or hyper when encountering palmitate and LPS than cells from youth without T2D. It is hoped that these ongoing studies will provide an understanding of the biology behind early onset T2D, in efforts to stem the burden of T2D in First Nation youth.

Dr. Julia Rempel and her laboratory have been studying how Aboriginal immunity may contribute to the better clearance of hepatitis C virus infection found in some Aboriginal peoples. More recently their attention has been shifted to understanding how the immune system of First Nations may participate in type 2 diabetes and related complications which affect one third of First Nation adults and an increasing number of children and youth.

**CONCURRENT SESSION IVB**

Friday, March 1, 2013, 10:45 a.m. - 12:30 p.m.
Room 203/7, Basic Medical Sciences Building

**Using participatory video for tobacco prevention with Aboriginal youth**

*Presenter: C. Jardine, S. Genuis*

Aboriginal youth are two to three times more likely to smoke than other Canadian youth and start smoking at a much younger age. Effective tobacco interventions for these youth must be both culturally appropriate and responsive to how they seek information. The objective of this research was to assess the efficacy of using participatory video and social media as a means to encourage smoking prevention and/or cessation amongst Aboriginal youth and community members. Sixteen youth (ages 7-16) from the Yellowknives Dene First Nation communities of Ndilo and Dettah in the Northwest Territories were involved in the development of tobacco videos as part of a summer activity program. Training was provided in both video production/editing and health effects of smoking. Semi-structured interviews were conducted with students, community partners and collaborators at both the outset and conclusion of the pilot project. The youth produced two highly effective videos with anti-smoking messages. These were showcased at community events and uploaded to YouTube. The youth incurred benefits of improved self-efficacy, capacity building and increased knowledge about smoking. The peer support derived from being part of an anti-smoking project made it easier for them resist pressures to start smoking. The very compelling nature of the videos was shown to have a high potential for making community members consider the impact of smoking on youth, and to change normative behaviours. Participatory video was confirmed as an effective and appropriate approach for promoting critical thinking on smoking behaviours for both Aboriginal youth and members of their communities.

Dr. Cindy Jardine is an Associate Professor in the School of Public Health at the University of Alberta, and holds a part-time nil appointment in the Dept. of Community Health Sciences at the University of Manitoba. Her research interests are in the areas of health risk communication, risk perception and risk management. Much of her research is conducted with Aboriginal communities in Alberta and the Northwest Territories. Dr. Jardine’s research involves using participatory approaches to explore how to build better dialogues around risks that will ensure that all types of perspectives and information are incorporated into risk decision making.

Dr. Shelagh Genuis is a Postdoctoral Fellow in the School of Public Health at the University of Alberta. Dr. Genuis has a multidisciplinary background in rehabilitation medicine, library and information sciences, and nursing. She is currently funded through an Alberta Innovates Health Solutions fellowship award.
Northern Cree SCIDS

Presenter: M. Schroeder

Severe combined immunodeficiency (SCID) is an inherited condition of the immune system. When the immune system malfunctions, it can be difficult or impossible for the body to battle germs. Babies with immune deficiencies cannot fight off ordinary infections. Untreated, the babies will become very sick and will die usually before the age of two years. However, SCID can be successfully treated if diagnosed early. This study was approved by the University of Manitoba Health Research Ethics Board. We have studied four different families of Northern Cree descent with children affected by an autosomal recessive form of SCID, two from Manitoba and two from Saskatchewan. All presented in infancy with failure to thrive, oral thrush and/or invasive bacterial and viral infections. All babies had normal lymphocyte counts, normal numbers of B and T cells. They were also agammaglobulinemic lacking antibodies to fight infection. Homozygosity mapping was performed. A candidate gene region of interest on chromosome 8 was identified. All 38 genes in that region were sequenced. All affected children were found to be homozygous for a single nucleotide change in one gene (IKBKB: insertion G at nucleotide 1292), i.e., 2 copies of the same single base pair mutation were present in all the children with SCID. The parents were asymptomatic heterozygotes (carriers) for this mutation; none of the unaffected children was homozygous for this mutation. This provides strong evidence that this mutation is causative of SCID in the Northern Cree. We propose to initiate newborn screening on babies from communities at high risk for SCID. This will lead to an early diagnosis and treatment before the babies become ill. This is an excellent example of how basic science leads to knowledge translation, advances in clinical medicine and improved health of children.

Dr. Marlis Schroeder is a Professor in the Section of Hematology/Oncology/BMT, Department of Pediatrics at the University of Manitoba. Dr. Schroeder's post-doctoral training in pediatrics and hematology/oncology was completed in Winnipeg with training in bone marrow transplantation completed in Seattle. Dr. Schroeder has been at the University of Manitoba, Children's Hospital and CancerCare Manitoba since 1975.

First Nations community based screening to improve kidney health

Presenters: P. Komeda, C. Chartrand

Background: First Nations communities in Manitoba suffer the highest rates of kidney failure requiring dialysis in Canada. Effective therapies do exist to prevent progression to dialysis, but require identification of kidney disease in its early stages. Currently, there is no funded screening program for kidney disease in Manitoba. We believe that active screening of kidney disease in high-risk populations can improve patient outcomes and reduce the downstream costs of dialysis.

Methods: Our project seeks to demonstrate that in high-risk populations such as Manitoba First Nations, active community based screening programs conducted by mobile screening teams using modern and efficient risk assessment tools are feasible, affordable, and lead to improved kidney care. The purpose is to establish a viable long-term kidney disease screening and treatment program in order to reduce the unnecessary burden of kidney failure requiring dialysis in First Nations communities.

Results: We will actively screen 11 communities across 2 tribal councils for CKD and its risk factors. Our aim is to screen as many members of the Western Region Tribal Council (WRTC) and Island Lake Tribal Council (ILTC), adults and children 10 years and older. Based on the screening data, we will apply a validated equation, which will predict the five year risk of kidney failure with remarkable precision. The application of this algorithm will allow us to stream all individuals into one of three risk categories (low, intermediate and high risk), and assign appropriate follow up.

Conclusions: We will begin screening in WRTC in Mar 2013 and will complete our screening initiative in early 2015. We will then present our findings in scientific journals, as well as disseminate them to relevant stakeholders in the aboriginal community, MB Health and Health Canada. This health delivery project has the ability to significantly improve kidney care for First Nations people across Canada.

Dr. Paul Komenda is Assistant Professor of Medicine in the Section of Nephrology at the University of Manitoba. He has completed a Masters in Health Administration at the Sauder School of Business in addition to a research fellowship at the University of British Columbia. Dr. Komenda has over 40 published peer reviewed articles in health services research and clinical nephrology since 2008. He currently holds provincial and national grant funding in excess of 500,000 dollars and is partway through the EXTRA (Executive Training for Research Applications) program funded by the Canadian Health Services Research Foundation. He currently serves as Medical Director of the Home Hemodialysis Program and Director of Research at Seven Oaks General Hospital.
VIDEOS & PODCASTS

Videos of the Keynote Speakers and audio podcasts (with powerpoint presentations) will be made available after the Symposium on our Manitoba NEAHR website at:

http://goo.gl/csRDi

Thank you for attending the 2nd Annual First Nations, Metis and Inuit Health Research Symposium!